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| 1. Hazard Management Details – General |
| **Plant/Equipment Item: Tractor** | **Make/Model No.:**  | **Serial No.:**  |
| **School / Work Location:**  | **Region:**  |
| **Name of Person(s) Conducting Activity:** | **Date Conducted:**       |
| Tractor  http://www.melbournetractors.com.au/products/large/375-1.jpg | **Description of Use:** A tractor is an engineering vehicle specifically designed to deliver at a high tractive effort at slow speeds, for the purposes of hauling a trailer or machinery used in agriculture or construction. | **Summary of Key Risks:** **(refer to appropriate subsections)** * Entanglement
* Impact and cutting
* Shearing
* Ergonomics
* Noise
* Vibration
* Slips, trips and falls
* Fire and explosion
* Other (Fumes)
 |

Plant and Equipment Risk Management Form

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| 2. Documentation |
| **Relevant Legislation/Standards** | **Y / N** | **Comments** |
| **Is plant required to be registered?** | Y [x]  N[ ]   | The vehicle must be registered. |
| **Is a user license required?** | Y [x]  N[ ]   | A valid car license is required to drive the tractor. |
| **Key Reference material**  |  | AS 1121 Agricultural tractor power take-offsAS 1636 Tractors – Roll-over protective structuresAS 2153.1 Tractors and machinery for agriculture and forestry – Technical means for ensuring safety - General |
| **Plant Documentation** | **Y / N** | **Comments** |
| **Are operator’s manuals accessible?** | Y [x]  N[ ]   |  |
| **Is this a restricted use item?** | Y [ ]  N[x]   |  |
| **Does this item require safe use documents/test?** | Y [ ]  N*[x]*   |  |

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| 3. Hazard Identification |  |
| **Hazards Inspected** | **Risk Assessment** | **Description of Risk** | **Control Measures** |
|  | **Cons** | **Like** | **Risk****Level** |  |  |
| **ENTANGLEMENT**Can anyone’s hair, clothing, gloves, cleaning brushes, tools, rags or other materials become entangled with moving parts of the plant or materials? | Y [x]  N[ ]  | Major | Unlikely | High | Loose clothing, long hair, gloves and other material may become entangled in moving parts of the tractor or tractor attachments. | Ensure clothing, gloves, hair or other such items are kept clear of moving parts of the tractor when operating or performing maintenance (e.g. overalls can be used to restrict loose clothing, hair tied back etc.). |

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| Hazards Inspected | Risk Assessment | Description of Risk | Control Measures |
|  | **Cons** | **Like** | **Risk****Level** |  |  |
| **IMPACT AND CUTTING INJURIES**Can anyone be crushed/cut/struck etc. due to: |  |  |  |  | The mobility of the tractor poses a significant risk to pedestrians and property whilst in operation/motion.Exposed moving parts present a risk to an operator’s hands and body parts.Vehicle may roll over on an uneven surface.Some tractor attachments/work tasks may cause debris and dust to be ejected during operation. | Ensure operator does not perform any cleaning, maintenance or repair until the tractor is turned off and any moving parts have come to a complete stop.Ensure appropriate roll over protection is installed on the vehicle.Ensure operator has been trained in the safe work procedures and appropriate PPE is worn.Ensure only manufacturer recommended parts and accessories are used with the tractor. |
| * Material falling off the plant?
 | Y [x]  N[ ]  | Major | Possible | High |
| * Uncontrolled/unexpected movement of plant/load?
 | Y [x]  N[ ]  | Severe | Possible | Extreme |
| * Lack of capacity to slow, stop or immobilise plant?
 | Y [ ]  N[x]  |  |  |  |
| * The plant tipping or rolling over?
 | Y [x]  N[ ]  | Severe | Possible | Extreme |
| * Parts of the plant disintegrating or collapsing?
 | Y [x]  N[ ]  | Major | Possible | High |
| * Contact with moving parts during testing, inspection, operation, maintenance, cleaning or repair?
 | Y [x]  N[ ]  | Major | Unlikely | Medium |
| * Being thrown off or under the plant?
 | Y [x]  N[ ]  | Severe | Unlikely | High |
| * Contact with sharp or flying objects? (e.g. work pieces being ejected)
 | Y [x]  N[ ]  | Moderate | Unlikely | Medium |
| * The mobility of the plant?
 | Y [x]  N[ ]  | Moderate | Possible | Medium |
| * Inappropriate parts and accessories being used?
 | Y [x]  N[ ]  | Major | Unlikely | Medium |
| * Other
 | Y [ ]  N[x]  |  |  |  |

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| Hazards Inspected | Risk Assessment | Description of Risk | Control Measures |
|  | **Cons** | **Like** | **Risk****Level** |  |  |
| **SHEARING**Can anyone’s body parts be sheared between two parts of plant, or between a part of the plant and a work piece or structure? | Y [x]  N[ ]  | Major | Possible | High | Risk of operator or other people’s body parts getting sheared between the tractor and attachment. | Ensure appropriate attachments are used as per manufacturer’s recommendations.Ensure operator has been trained in safe work practices. |
| **PRESSURISED CONTENT**Can anyone come into contact with fluids or gases under high pressure, due to plant failure or misuse of the plant? | Y [ ]  N[x]  |  |  |  |  |  |
| **ELECTRICITY**Can anyone be injured or burnt due to: |  |  |  |  |  |  |
| * Live electrical conductors? (*e.g.* exposed wires)
 | Y [ ]  N[x]  |  |  |  |
| * Working in close proximity to electrical conductors?
 | Y [ ]  N[x]  |  |  |  |
| * Access to electricity?
 | Y [ ]  N[x]  |  |  |  |
| * Damaged or poorly maintained electrical leads, cables or switches?
 | Y [ ]  N[x]  |  |  |  |
| * Water near electrical equipment?
 | Y [ ]  N[x]  |  |  |  |
| * Lack of isolation procedures?
 | Y [ ]  N[x]  |  |  |  |
| * Other
 | Y [ ]  N[x]  |  |  |  |

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| Hazards Inspected | Risk Assessment | Description of Risk | Control Measures |
|  | **Cons** | **Like** | **Risk****Level** |  |  |
| **ERGONOMICS**Can anyone be injured due to: |  |  |  |  | If operating the tractor for long periods of time, poorly designed or degraded seats may cause musculoskeletal injury. | Ensure the tractor is not operated for extended periods of time.Ensure appropriate rest breaks are taken.Ensure tractor seating is in good condition and can be adjusted for different body types. |
| * Poorly designed workstation?
 | Y [x]  N[ ]  | Moderate | Possible | Medium |
| * Repetitive body movement?
 | Y [ ]  N[x]  |  |  |  |
| * Constrained body posture or the need for excessive effort?
 | Y [ ]  N[x]  |  |  |  |
| * Design deficiency causing psychological stress?
 | Y [ ]  N[x]  |  |  |  |
| * Inadequate or poorly placed lighting?
 | Y [ ]  N[x]  |  |  |  |
| * Does the plant impact on the surrounding workplace and create potential hazards? (Consider potential impact on the design and layout of the workplace)
 | Y [ ]  N[x]  |  |  |  |
| * Is the location of the plant inappropriate? (Consider potential effects due to environmental conditions and terrain)
 | Y [ ]  N[x]  |  |  |  |
| * Other
 | Y [ ]  N[x]  |  |  |  |

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| Hazards Inspected | Risk Assessment | Description of Risk | Control Measures |
|  | **Cons** | **Like** | **Risk****Level** |  |  |
| **RADIATION**Can anyone using the plant, or in the vicinity of the plant suffer injury or illness due to exposure to radiation in the form of any of the following:* infra-red radiation
* ultra violet light
* microwaves
 | Y [ ]  N[x]  |  |  |  |  |  |
| **NOISE**Can anyone using the plant, or in the vicinity of the plant, suffer injury due to exposure to noise? | Y [x]  N[ ]  | Moderate | Unlikely | Medium | Operation of the equipment can result in high noise levels. | Appropriate hearing protection should be worn whilst operating the equipment. |
| **VIBRATION**Can anyone be injured or suffer ill-health from exposure to vibration? | Y [ ]  N[x]  | Moderate | Unlikely | Medium | The operator of the tractor could suffer from Whole Body Vibration (WBV) as a result of vibration generated by the tractor. | Take regular breaks from continuous operation.Conduct periodic maintenance of the tractor for smooth operation and to reduce vibration. |
| **FRICTION**Can anyone be burnt due to contact with moving parts, materials or surfaces of the plant? | Y [ ]  N[x]  |  |  |  |  |  |
| **SUFFOCATION**Can anyone be suffocated due to lack of oxygen, or atmospheric contamination?  | Y [ ]  N[x]  |  |  |  |  |  |
| **CONDITION**Is a hazard likely due to the age and condition of the plant? (*Consider how hard the machine has been worked, and whether it is used constantly or rarely).* | Y [ ]  N[x]  |  |  |  |  |  |
| * Can anyone be injured as a result of the plant not serviced appropriately and/or maintained in line with manufacturer’s recommendations?
 | Y [ ]  N[x]  |  |  |  |

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| Hazards Inspected | Risk Assessment | Description of Risk | Control Measures |
|  | **Cons** | **Like** | **Risk****Level** |  |  |
| **SLIPS/TRIPS/FALLS**Can anyone using the plant, or in the vicinity of the plant, slip, trip or fall due to: |  |  |  |  | Risk of slip, trip or fall from the tractor whilst accessing or exiting the vehicle. | Ensure operator wears slip resistant footwear to reduce risk of slips/falls.Ensure operator maintains three points of contact when accessing or exiting the vehicle. |
| * Uneven, slippery or steep work surfaces?
 | Y [x]  N[ ]  | Major | Possible | High |
| * Poor housekeeping, e.g. spillage in the vicinity?
 | Y [x]  N[ ]  | Major | Possible | High |
| * Obstacles being placed in the vicinity of the plant?
 | Y [ ]  N[x]  |  |  |  |
| * Inappropriate or poorly maintained floor or walking surfaces (i.e. lack of a slip-resistant surface, unprotected holes, penetrations or gaps?)
 | Y [x]  N[ ]  | Major | Possible | High |
| If operating or maintaining plant at height can anyone slip, trip or fall due to: |  |  |  |  |
| * Use of work platforms, stairs or ladders?
 | Y [ ]  N[x]  |  |  |  |
| * Lack of guardrails or other suitable edge protection?
 | Y [ ]  N[x]  |  |  |  |
| * Other
 | Y [ ]  N[x]  |  |  |  |
| **Hazards Inspected** | **Risk Assessment** | **Description of Risk** | **Control Measures** |
|  | **Cons** | **Like** | **Risk****Level** |  |  |
| **FIRE AND EXPLOSION**Can anyone be injured by fire? | Y [x]  N[ ]  | Major | Rare | Medium  | The storage and handling of fuel (e.g. refuelling) may pose a risk of fire and explosion to the operator. | Ensure engine is stopped and has cooled down before refuelling.Ensure refuelling occurs in a well- ventilated area.Ensure fuel and refuelling equipment is stored appropriately (e.g. locked storage room away from any possible sources of ignition). |
| * Can anyone be injured by explosion of gases, vapours, liquids, dusts, or other substances?
 | Y [x]  N[ ]  | Severe | Rare | Medium  |
| **TEMPERATURE/MOISTURE**Can anyone come into contact with objects athigh or low temperatures? | Y [ ]  N[x]  |  |  |  |  |  |
| * Can anyone suffer ill-health due to exposure to high or low temperatures?
 | Y [ ]  N[x]  |  |  |  |
| * Can anyone be injured or suffer ill-health due to exposure to moisture?
 | Y [ ]  N[x]  |  |  |  |
| **OTHER**Can anyone be injured or suffer ill-health from exposure to: |  |  |  |  |  |  |
| * Chemicals?
 | Y [x]  N[ ]  | Minor | Unlikely | Low |
| * Toxic gases or vapours?
 | Y [ ]  N[x]  |  |  |  |
| * Fumes/Dusts?
 | Y [x]  N[ ]  | Major | Rare | Medium |
| * Other? (please specify)
 | Y [ ]  N[x]  |  |  |  |
| **4. Risk Assessment Signoff** |
| Authorised By:       | Signature: | Date:       |

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| Consequence - Evaluate the consequences of a risk occurring according to the ratings in the top row

|  |  |  |
| --- | --- | --- |
| Descriptor | Level | Definition |
| **Insignificant** | **1** | No injury |
| **Minor** | **2** | Injury/ ill health requiring first aid |
| **Moderate** | **3** | Injury/ill health requiring medical attention |
| **Major** | **4** | Injury/ill health requiring hospital admission |
| **Severe** | **5** | Fatality |

3. Risk level - Calculate the level of risk by finding the intersection between the likelihood and the consequences

|  |  |
| --- | --- |
| Likelihood | Consequence |
| **Insignificant** | **Minor** | **Moderate** | **Major** | **Severe** |
| **Almost Certain** | Medium | High | Extreme | Extreme | Extreme |
| **Likely** | Medium | Medium | High | Extreme | Extreme |
| **Possible** | Low | Medium | Medium | High | Extreme |
| **Unlikely** | Low | Low | Medium | Medium | High |
| **Rare** | Low | Low | Low | Medium | Medium |

  | Likelihood - Evaluate the likelihood of an incident occurring according to the ratings in the left hand column

|  |  |  |
| --- | --- | --- |
| Descriptor | Level | Definition |
| **Rare** | **1** | May occur somewhere, sometime (“once in a life time / once in a hundred years”) |
| **Unlikely** | **2** | May occur somewhere within the Department over an extended period of time |
| **Possible** | **3** | May occur several times across the Department or a region over a period of time |
| **Likely** | **4** | May be anticipated multiple times over a period of timeMay occur once every few repetitions of the activity or event |
| **Almost Certain** | **5** | Prone to occur regularlyIt is anticipated for each repetition of the activity of event |

4. Risk Level/Rating and Actions

|  |  |
| --- | --- |
| Descriptor | Definition |
| **Extreme:** | Notify **Workplace Manager and/or Management OHS Nominee** immediately. Corrective actions should be taken immediately. Cease associated activity. |
| **High:** | Notify **Workplace Manager and/or Management OHS Nominee** immediately. Corrective actions should be taken within 48 hours of notification. |
| **Medium:** | Notify **Nominated employee, HSR / OHS Committee**. Nominated employee, OHS Representative / OHS Committee is to follow up that corrective action is taken within 7 days. |
| **Low** | Notify **Nominated employee, HSR / OHS Committee**. Nominated employee, HSR / OHS Committee is to follow up that corrective action is taken within a reasonable time. |

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