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| **TASK DESCRIPTION** | | Operation of articulated front-end loader (customise for your site):   * loading mobile crusher hopper with ore * loading mobile screen hopper * transferring from screen output piles to stockpile * stockpile management * loading dump trucks at face * yard/haul road maintenance * Sales loader – quarry truck loading from stockpiles | | | | | | | |
| **Personal protective equipment** | | Icon  Description automatically generated |  | |  | |  | Icon  Description automatically generated | Icon  Description automatically generated |
| **Competencies**  (Licences and competencies required to perform the work) | | Front-end loader (LL) verification of competency *OR*  RIIMPO321F Conduct civil construction front-end loader operations | | | | | | | |
| **Tools and Equipment**  (Any additional tools and equipment required to perform the task) | | Machine start-up lockout hardware and tags  P2 respirator kit  Safety Data Sheet folder in maintenance area for fuels and lubricants | | | | | | | |
| **Chemicals and Substances**  (Chemicals or substances that will be used to perform the work) | | Diesel fuel (Refer to SDS)  H/D greases  Engine, transmission, differential, transmission, hydraulic oils and brake fluid (Refer to SDS) | | | | | | | |
| **Energy isolation required**  (Does this task require any isolations, e.g., for performing maintenance tasks on plant or equipment) | | Maintenance tasks – refer to manufacturer’s manual and service tasks JSA:   * A picture containing text, sign, outdoor, pole    Description automatically generatedenergy isolation/lockout register and station (padlocks, devices and tags) * lockable master disconnection switch * articulated frame lock compliant with AS ISO 10570:2021 (crush protection) * lift-arm support devices compliant with AS ISO 10533:2021 | | | | | | | |
| **Permits required** | | Refer to site Hot-work procedure  Hot work permit templates and risk assessment and training register | | | | | | | |
| **References**  (Documents that are to be referred to when performing the task, e.g., other safe operating procedures, legislative requirements, etc) | | Operators must be familiar with the manufacturer’s manual  Pre-start inspection checklist and SOP must be available to all operators  Hazard reporting procedure  Service tasks JSA and service manual | | | | | | | |

| **ANY PROBLEMS, MALFUNCTIONS OR DAMAGE TO EQUIPMENT OR GUARDING MUST BE REPORTED TO YOUR SUPERVISOR**  Instructions in the manufacturer’s manual must always have precedence over this SOP  Where the manual is not available due to the age of machine, a competent person must be consulted | | | |
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| **Steps and safety instructions** | | **Hazards** | **Risk Controls** |
| **Customise to suit your quarry** | | | |
| 1. | **Cabin access & starting**  Attend morning safety meeting  Perform the pre-start safety inspection – advise supervisor of any safety concerns  Use three-points-of-contact on access ladder  Follow the starting sequence outlined in machine manual and review instrumentation read-outs and warning lights for problems | Other moving quarry vehicles  Height from the ground at cabin entrance  Uneven ground surface | Delineated pre-start/parking zone with hard barrier controls, smooth ground surface and good lighting  Access steps, platform & handrail/hand holds compliant with AS 5327: 2022  Mandatory hi-vis workwear & safety foot-ware (reflective)  Establish designated, safe LV parking locations in operational areas  Machine headlights & portable floodlights if needed for pre-start checking |
| 2. | **Warm-up & safety checks (Follow sequence in manual)**  Turn on rotating beacon & headlights  Test the reversing siren  Adjust rear-view mirrors/check camera view  Follow site radio protocol for advising of intentions and location of other vehicles  Fit seat belt  Fit earmuffs/plugs  Close door and activate HVAC system |  | Delineated pre-start/parking zone with hard barrier controls & good lighting  Site vehicle radio procedures  Rotating amber beacon  Seat belt warning alarm  Machine headlights, reversing siren and reversing camera |
| 3. | **Load-shifting work**  Inspect the crusher/screen access ramps – level surface, side bunding, height provides view into hopper  Apply skills developed through competency training (Follow sequence in manual):   * Operate machine crowding bucket control to fully fill bucket * Work the throttle and forward/reverse control and brakes to minimise wear & tear on the machine (maintain a watch on rear camera or mirrors)   Maintain crusher/screen access ramps to a level surface  Keep full bucket low while moving  Maintain a listening watch on the radio | Fixed support structure for crushers, conveyors etc.  Pedestrians  Emergency situation  Quarry bench and haul-road edges  Hazardous dust  Overhead powerlines  Hazardous noise  Moving plant – water truck, dump truck, light vehicles  Optical radiation | Operator cabin – door closed, filtered cabin ventilation  P2 RPE and fit testing  CB radio in vehicle  Powerline exclusion zone/signage  Designated, safe LV parking locations in operational areas  Reversing siren, mirrors & camera  PPE including shaded safety glasses |
| 4. | **Lifting heavy objects with bucket**  Check that burst protection is fitted on machine if the rated capacity exceeds 1 tonne  Check that there is a manufacturer designed lifting point with a Maximum Rated Capacity (MRC) clearly marked  Prepare a lifting plan (Risk assessment) in consultation with qualified dogger  Inspect lifting shackles, slings, or chains - must have a load rating tag  Ensure that the lift area is well clear of powerlines  Plan the lift to maintain a clear line of site while operating the machine | High centre of gravity  Overhead powerlines  Unconsolidated, sloping or undulating ground  Faulty chains and slings (must be inspected and tagged)  Pedestrians  Stormy weather conditions | Manufacturers load chart must be used to ensure lift is within machines capacity  Documented ‘lifting plan’ with competent person (Dogging)  Lifting equipment register & inspection schedule and current tags fitted (Chains/slings/beams/shackles)  May need dogging (DG) competency (if no safe work lifting procedures)  Pedestrian exclusion zone, hardware and signage |
| 5. | **Cleaning machine**  Use protected cleaning zone away from traffic movement  Lower bucket to the ground, lock transmission, apply parking brake  Chock wheel(s)  Use a M or H-rated vacuum cleaner for cabin dust removal (check test & tag date currency)  Vacuum first, remove vacuum and leads before using water  Use a platform stepladder or access platform for washing above ground level | Passing vehicles  Hazardous dust  Unintended machine movement  Mains electricity  Elevated heavy parts (gravity).  Working at height | Traffic Management Plan – delineated maintenance zone with hard barriers  M or H-rated vacuum cleaner  Electrical test & tag schedule  Platform stepladder or access platform |
| 6. | **Maintenance & servicing jobs**  Use delineated maintenance bay away from traffic movement  Review the relevant service tasks JSA’s  Set parking brake  Position wheel chocks  Lock master disconnection switch  Identify location of ‘crush zone’ decals  Fit articulated frame lock  Use a M or H-rated vacuum to remove dust where necessary to minimise exposure  Follow depressurisation instructions in manual for all systems to be accessed  Always adhere to safe manual handling practices – use 2-person lifting or chain-blocks, lifting trolleys, pinch-bars etc  Clean hands thoroughly with hand cleaner product | Hazardous dust  Unintended machine movement  Passing vehicles  Hydraulic oil under pressure  Elevated heavy parts (gravity)  Battery electrical energy  Crush and shear hazards  Manual handling hazards  Diesel fuel and lubricants  Working at height | Traffic Management Plan – delineated maintenance zone with hard barriers  Manufacturers maintenance & servicing manuals  Service tasks JSA’s  Articulated frame lock compliant with AS ISO 10570:2021  Manufacturer supplied lift-arm support devices compliant with AS ISO 10533: 2021  Lockable master disconnection switch  M or H-rated vacuum cleaner  Platform stepladder or access platform  Fuel and lubricant SDS’s  Long workwear and safety footwear  Manual handling training  Chain block, hydraulic lifting trolley, trolley jacks, axle stands  Washing facilities for maintenance persons |
| 7. | **Refuelling machine**  (Insert sequence and safeguards in manual):  Position machine so that filler hose reaches filler cap comfortably  Lower the bucket to the ground and set hand brake  Close engine down and remove starter key | Flammable fuel  Static electricity  Ignition sources  Moving vehicles | Purpose-built fuelling station with hard barriers  Site refuelling SOP  Fuel tank earthing/bund  Fire extinguisher  Spill kit  Emergency eye-wash station  PPE - eye protection, PVC/Nitrile gloves |
| 8. | **Machine disposal** | Damaged or failed components - hazards | Prepare an owner transfer document that identifies all failed components, damage, loss of structural integrity and other hazards. Keep a copy in file system |

I have read and understand the procedure described above and are aware of my legal obligation to follow the procedure.

Where I have identified this procedure to be incorrect or incomplete, I will immediately report it to my supervisor and conduct a risk assessment to ensure adequate controls are in place to manage the hazard before commencing the task.

**Signed\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Print Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Supervisor Signature**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Note:** *This section is to be removed and recorded in the workers training file.*