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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 tagsP2 respirator kitSafety 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 greasesEngine, 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
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| **Permits required** | Refer to site Hot-work procedureHot 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 manualPre-start inspection checklist and SOP must be available to all operatorsHazard reporting procedureService 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 SOPWhere 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 meetingPerform the pre-start safety inspection – advise supervisor of any safety concernsUse three-points-of-contact on access ladderFollow the starting sequence outlined in machine manual and review instrumentation read-outs and warning lights for problems | Other moving quarry vehiclesHeight from the ground at cabin entranceUneven 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: 2022Mandatory hi-vis workwear & safety foot-ware (reflective)Establish designated, safe LV parking locations in operational areasMachine headlights & portable floodlights if needed for pre-start checking |
| 2. | **Warm-up & safety checks (Follow sequence in manual)**Turn on rotating beacon & headlightsTest the reversing sirenAdjust rear-view mirrors/check camera viewFollow site radio protocol for advising of intentions and location of other vehiclesFit seat beltFit earmuffs/plugsClose door and activate HVAC system |  | Delineated pre-start/parking zone with hard barrier controls & good lighting Site vehicle radio proceduresRotating amber beaconSeat belt warning alarmMachine headlights, reversing siren and reversing camera |
| 3. | **Load-shifting work**Inspect the crusher/screen access ramps – level surface, side bunding, height provides view into hopperApply 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 surfaceKeep full bucket low while movingMaintain a listening watch on the radio | Fixed support structure for crushers, conveyors etc.PedestriansEmergency situationQuarry bench and haul-road edges Hazardous dustOverhead powerlinesHazardous noiseMoving plant – water truck, dump truck, light vehiclesOptical radiation | Operator cabin – door closed, filtered cabin ventilationP2 RPE and fit testingCB radio in vehiclePowerline exclusion zone/signageDesignated, safe LV parking locations in operational areasReversing 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 tonneCheck that there is a manufacturer designed lifting point with a Maximum Rated Capacity (MRC) clearly markedPrepare a lifting plan (Risk assessment) in consultation with qualified dogger Inspect lifting shackles, slings, or chains - must have a load rating tagEnsure 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 gravityOverhead powerlinesUnconsolidated, sloping or undulating groundFaulty chains and slings (must be inspected and tagged)PedestriansStormy weather conditions | Manufacturers load chart must be used to ensure lift is within machines capacityDocumented ‘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 movementLower 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 waterUse a platform stepladder or access platform for washing above ground level | Passing vehiclesHazardous dustUnintended machine movementMains electricityElevated heavy parts (gravity).Working at height | Traffic Management Plan – delineated maintenance zone with hard barriers M or H-rated vacuum cleanerElectrical test & tag schedulePlatform stepladder or access platform  |
| 6. | **Maintenance & servicing jobs**Use delineated maintenance bay away from traffic movementReview the relevant service tasks JSA’sSet parking brake Position wheel chocks Lock master disconnection switch Identify location of ‘crush zone’ decalsFit articulated frame lockUse a M or H-rated vacuum to remove dust where necessary to minimise exposureFollow depressurisation instructions in manual for all systems to be accessedAlways adhere to safe manual handling practices – use 2-person lifting or chain-blocks, lifting trolleys, pinch-bars etcClean hands thoroughly with hand cleaner product | Hazardous dustUnintended machine movementPassing vehiclesHydraulic oil under pressureElevated heavy parts (gravity)Battery electrical energyCrush and shear hazardsManual handling hazards Diesel fuel and lubricantsWorking at height | Traffic Management Plan – delineated maintenance zone with hard barriersManufacturers maintenance & servicing manuals Service tasks JSA’sArticulated frame lock compliant with AS ISO 10570:2021 Manufacturer supplied lift-arm support devices compliant with AS ISO 10533: 2021Lockable master disconnection switch M or H-rated vacuum cleanerPlatform stepladder or access platformFuel and lubricant SDS’sLong workwear and safety footwearManual handling trainingChain block, hydraulic lifting trolley, trolley jacks, axle standsWashing facilities for maintenance persons |
| 7. | **Refuelling machine**(Insert sequence and safeguards in manual):Position machine so that filler hose reaches filler cap comfortablyLower the bucket to the ground and set hand brakeClose engine down and remove starter key | Flammable fuelStatic electricityIgnition sourcesMoving vehicles | Purpose-built fuelling station with hard barriersSite refuelling SOPFuel tank earthing/bundFire extinguisherSpill kit Emergency eye-wash stationPPE - 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.*