

### Work Instruction for Operating Excavator

Do's

DOC NO. OMC/PRODN/OC/WI/11 ISSUE NO. 01 REV. NO. 00 DATE. 10/01/2018

- 1. Every excavator shall be under the charge of a competent person called operator.
- 2. The operator authorized by the Mines Manager shall ride or operate the excavator.
- 3. Authorised operator should check the following before taking out the machine.
  - a. Brakes & lights
  - b. Track & roller
  - c. Bucket condition (For any crack)
  - d. Undercarriage for any oil leakage
  - e. Boom anchor pin (No crack or displaced)
- 4. PPE should be used Safety shoe, safety helmet, fluorescent jacket.
- 5. The cabin should be free of loose tools, grease container & inflammable materials.
- 6. The cabin window should be kept cleaned to ensure clear vision at all time.
- The operator should check nearby areas that no person is present before swinging the machine.
- When the excavator is shifted, the bucket shall be kept 0.5mtrs above ground with the boom kept in the direction of travel.
- 9. While loading truck/dumper, the machine swinging shall be over the body.
- 10. During blasting, machine should be shifted to safe distance & boom shall be turned in opposite direction to the site of blasting.
- 11. At the end of the shift/when not in use, the machine shall be moved to & parked on stable ground with the bucket rest on the ground.
- 12. The machine is to be parked in the designated place.



### Work Instruction for Operating Excavator

### Don'ts

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- 1. No person other than authorised operator shall operate the excavator.
- Authorised operator should not take out the excavator without checking the essential units.
- 3. Operator should not be allowed without proper PPE.
- 4. Loose tools, grease container & inflammable materials should not be kept in cabin.
- 5. Cabin windows should not be kept dirty; it will obstruct the clear vision.
- 6. Swinging the excavator without checking nearby areas can cause accidents.
- 7. Excavator should not be shifted in unusual position, which may result to accidents.
- 8. The machine swinging should not be over the cabin.
- During blasting, machine should not be left within danger zone & boom should not be kept in same direction to the site of blasting.
- The machine should not be left in uneven ground & bucket not to be left above the ground.
- Not to leave the machine without handing over to reliever or locking the excavator cab.



### Work Instruction for Operating Grader

Do's

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- 1. The machine shall be operated only by the authorised operator.
- 2. Before operation, operator shall inspect and test all the operational safety apparatus.
- 3. Blade condition for any crack, tightness of blade bolts are to be checked before operation.
- 4. Check tyre condition & any leakage in hydraulic system.
- 5. Use PPE Safety shoe, helmet & fluorescent jacket.
- 6. The operator should operate the machine without any assistant.
- 7. The cab window should always be kept clean.
- 8. The walk ways in & about the cabin should be kept free of loose tools, grease container & other materials.
- 9. Always maintain distance of 30m between two moving machines.
- 10. The operator should hoist/push any material within its designated capacity.
- 11. While reversing, satisfy yourself about any nearby object using rear view camera.
- 12. After completion of work, the operator should park the machine on a safe and level ground. The blade should be lowered to ground.
- 13. After completion of shift, machine should be handed over to authorised operator or the cabin is to be locked.



## Work Instruction for Operating Grader

### Don'ts

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- 1. Un-authorized persons should not operate or ride on the machine.
- Operator should not operate the machine without inspection and testing of all the operational safety apparatus.
- 3. Don't operate without maintaining tyre pressure or attending to the leakages.
- 4. Never neglect use of PPE.
- 5. The operator should not allow any unauthorised to ride in cabin.
- 6. Don't allow dirt on the cabin glass.
- Any material should not be kept inside cabin to restrict movement. Loose materials may fall & present tipping hazard.
- 8. Safe distance should always be maintained & no person should be in proximity.
- 9. The operator should not hoist/push any material beyond its designated capacity.
- 10. Don't carry out reversing if the conditions are not met.
- 11. After completion of work the operator should not park the machine in unsafe and uneven ground.
- 12. The operator should not leave the machine without ensuring safety.



## Work Instruction for Operating Pay Loader

Do's

DOC NO.
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- 1. The machine shall be operated only by the authorised operator.
- 2. Before operation, operator shall inspect and test all the operational safety apparatus.
- Bucket and teeth condition for any crack, tightness of bucket bolt, pin, leakage of hydraulic cylinder are to be checked before operation.
- 4. Check tyre condition & any leakage in hydraulic system.
- 5. Use PPE Safety shoe, helmet & fluorescent jacket.
- 6. The operator should operate the machine without any assistant
- 7. The cab window should always be kept clean.
- The walk ways in & about the cabin should be kept free of loose tools, grease container & other materials.
- 9. Always maintain distance of 30m between two moving machines.
- 10. The operator should hoist/push any material within its designated capacity.
- 11. The loader operator shall work with a stock-pile of height equal or less than loading height of loader.
- 12. While reversing, satisfy yourself about any nearby object using rear view camera.
- 13. After completion of work, the operator should park the machine on a safe and level ground. The bucket should be lowered to ground.
- 14. Three point contact should be ensured during riding to the cabin.
- 15. After completion of shift, machine should be handed over to authorised operator or the cabin is to be locked.



# Work Instruction for Operating Pay Loader

#### Don'ts

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- 1. Un-authorized persons should not operate or ride on the machine.
- 2. Operator should not operate the machine without inspection and testing of all the operational safety apparatus.
- 3. These checks should necessarily be done before operating the machine.
- 4. Don't operate without maintaining tyre pressure or attending to the leakages.
- 5. Never neglect use of PPE.
- 6. The operator should not allow any unauthorised to ride in cabin.
- 7. Don't allow dirt on the cabin glass.
- Material should not be kept inside cabin to restrict movement. Loose materials may fall & present tipping hazard.
- 9. Safe distance should always be maintained & no person should be in proximity.
- 10. The operator should not hoist/push any material beyond its designated capacity.
- 11. Don't carry out reversing if the conditions are not met.
- 12. After completion of work the operator should not park the machine in unsafe and uneven ground.
- 13. The operator should not leave the machine without ensuring safety.



# Work Instruction for Operating Welding Machine

Do's

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- Safety goggles should always be used in addition to welding mask. Always wear shoe with rubber sole. Use hearing protection. Fume collector should be used.
- Use welding apron. Always wear pants without cuffs; avoid clothes and gloves with snags, tear or worn spot; keep all pockets empty and sealed. Protective clothing to cover arms & legs.
- 3. Ensure electrode holder & welding cable in good condition.
- 4. Ensure earthing in the welding machine and enclosure.
- 5. Only weld in authorised areas. Make sure the area is dry, free of oil & grease and adequately ventilated
- Keep people away unless they are authorised to be there and are wearing the appropriate personnel protective equipment
- Inspect the equipment you will be using before you start. Familiarise with the machine & control.
- 8. The holder should not have electrode when the machine is switched ON.
- 9. Ensure that the welding socket is adequately rated.
- 10. Ensure current is correctly set according to type of electrode.
- 11. When job is completed, switch off machine, remove stub from holder and hang up the electrode and cable.



### Work Instruction for Operating Welding Machine

### Don'ts

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- 1. Do not use PPE that's defective or not in good condition.
- Do not weld with upturned sleeves or collars because sparks could get caught in them.
   Never wear clothing made of synthetic material such as polyester or nylon. Rings & jewellery should not be worn.
- 3. Do not use equipment that is defective. Welding cable should not be in damaged condition.
- 4. Do not lay down a torch on a table with oil residues. Oil and oxygen do not mix.
- 5. Never weld cut or do related work on drum, barrels or tanks. They could explode.
- 6. Do not weld near rooms where flammables objects are stored.
- 7. Don't switch on if an electrode is present.
- 8. The plug & socket should not be damaged. Don't connect with loose wire without plug.
- 9. Don't set current higher than recommended.
- 10. Safety precautions should not be neglected.



# Work Instruction for handling of Explosives

#### Do's

DOC NO.
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- 1. Ensure transit slip signed by the competent authority.
- 2. The magazine shall be operated during day time only.
- 3. Only authorized person shall be allowed to enter to the Magazine premises.
- 4. The quantity of explosives shall be properly counted by the Magazine I/C and handed over to the Blaster.
- 5. The Explosives and the detonators shall be kept in separate containers and locked securely.
- 6. The boxes with explosives shall be painted with red coloured and marked Explosives.
- 7. The boxes with explosives shall be handled carefully.
- 8. The explosives with the earliest batch number shall be issued first.
- 9. After blasting the Blaster shall return the un-used explosives to the Magazine.
- 10. Checking of the locks after the transaction shall be done by Security.
- 11. In case of emergency siren shall be blown.



# Work Instruction for handling of Explosives

### Don'ts

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- 1. Inflammable item, mobile or other electronic items shall not be allowed in the magazine area.
- 2. Explosives should not be left anywhere unattended.



### Work Instruction for Pumping Operation

#### Do's

DOC NO. OMC/PRODN/OC/WI/16 ISSUE NO. 01 REV. NO. 00 DATE. 10/01/2018

- 1. Only authorized person should operate the pump under direction of supervisors.
- 2. Check the foot valve and clear the obstruction if any.
- 3. Open the vent valve to ensure the proper priming before starting the pump.
- 4. Check the supply voltage to the pump for correct reading.
- 5. Use required PPEs like Safety Shoes, Helmet, Safety hand gloves etc.
- 6. Stop the pump if any vibration is there after pressing the start button.
- Make sure all guards and shields are in place and secured before starting of the engine.
- 8. Check the ampere meter and maintain as per guideline.
- Inform the shift in charge if any major breakdown or any abnormal sound is observed during running of the pump.
- 10. Ensure proper housekeeping and maintain the places dry near the pump station where electrical panel, switch boxes etc. are fitted.
- 11. Hand over the charge to the succeeding shift operator and maintain the daily shift report at the end of the shift.



# Work Instruction for Pumping Operation

### Don'ts

DOC NO. OMC/PRODN/OC/WI/16 ISSUE NO. 01 REV. NO. 00 DATE. 10/01/2018

- 1. Don't forget safety, health and environmental precautions.
- 2. Don't allow pump to run dry.
- 3. Don't run the pump more than the recommended operating limits.
- 4. Don't press the start and stop button frequently if any abnormality is observed during running of the pump.



# Work Instruction for formation of Spoil Banks

DO'S

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- The slope of a spoil bank face shall be determined by the natural angle of repose of the material being deposited but shall in no case exceed 37 degree from the horizontal.
- A Crater Boulder Wall around Over Burden dump and Concrete wall around Subgrade and fines dump must be constructed before start of dumping activity in that location.
- 3. Maximum height of bench should not exceed 30mt.
- A notice of dangerous occurrence should be given to the inspectorate if there is any indication of on stability of the dumps.



# Work Instruction for formation of Spoil Banks

#### DONT'S

DOC NO. OMC/PRODN/OC/WI/17 ISSUE NO. 01 REV. NO. 00

DATE. 10/01/2018

- Nobody is permitted to approach the toe of an active spoil bank where he may be endangered from materials rolling dower the face.
- 2. No slope should be steeper than as stipulated by DGMS
- 3. The Toe of spoil bank shall not be permitted to approach public roads or building or other permanent structure not belonging to the owner of the mine, closer than a distance equal to the vertical height of the face.
- 4. The spoil bank face shall not be retained by artificial means at an angle in excess of its natural angle of repose.