

OWN SAFETY ONSITE

Toolbox Talk – Suspended pipe work

Applying a dynamic risk assessment approach to managing hazardous manual tasks onsite during In Ground Works

STOP

THINK about and plan your work tasks

- Ensure that lifting aids, equipment and appropriate resources are considered in the project budget.
- Plan forward and look ahead. Have you planned for a budgeted earthmoving equipment (excavators, bulldozers, skid steers, etc.) and considered site access? Do you have the resources and tools to ensure the job is done safely?
- Does the machine or equipment have all appropriate attachments and lifting aids including rock breakers, slings, and hooks?
- Do you have appropriately licenced and skilled operators? Ensure operators plan trenches to allow for grading slopes for ease of access and egress of workers. Ensure operators understand how to minimise unnecessary manual handling such as spreading gravel evenly in trenches to reduce raking.
- Do workers understand and know how to use tooling to avoid unnecessary manual handling such as hammer drills, Wacker packers, jackhammers rather than sledgehammers, shovels, crow bars, etc.
- Ensure any pipe is stored close to the site works to avoid unnecessary lifting or carrying. Use a sling lift for any heavy or awkward lengths of pipe that can't be safely lifted by two workers.
- Aim to eliminate lifting using lifting and mechanical aids wherever possible. If lifting or carrying must occur, always use two workers to lift or carry lengths of pipe.

ACT using safe lifting principles

- Workers to understand their capabilities and limitations regarding manual handling tasks (stature, strength, pre-existing weaknesses, or injuries).
- Visual assessment – weight, size, shape, handles.
- Assessment with foot or hand – tap or pull to get a feel for weight when unsure of weight or awkwardness.
- Check path for hazards or obstructions.
- Ensure regular job and task rotation to avoid sustained or repetitive postures.

Lifting lengths of pipe into trenches

- Eliminate lifting using a sling and machine where possible
- Use a two man lift for long or heavy pipe lengths –ensure firm footing and good base of support, smooth controlled, placement and prep – lift into trench rather than overreaching and bending down into trench. Use a squat lift with good two-handed grip on pipe.

Using tooling during ground works stages. Remember to use a neutral power grip.

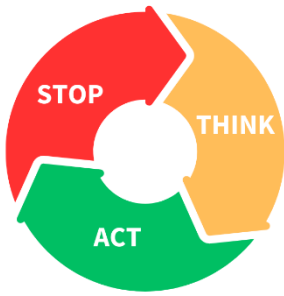
- When using tooling such as a whacker packer, use a two-handed neutral power grip, keep tooling close to you and avoid 'fighting' tooling by letting the machine or tool do the work.
- Hammer drill – use a squat, kneel approach to reduce bending of the back and don't fight it, work with the tool.
- Jackhammer – keep close, good two-handed grip and don't fight it or let it get away on you.

Carrying equipment and tooling onsite and trenches

- Always use a ramp or step in and out of trenches, never jump in and out or over trenches.
- Use a wheelbarrow or trolley – to reduce carrying loads.
- Ensure solid footing by keeping eyes on path and watching for uneven ground or hazards and obstacles.
- Ensure regular rotation through positions to reduce exposure to one task.

Report any issues early

- Ensure any issues machinery or equipment is reported, and if you develop any discomfort or pain.
- Report any hazards early.
- Seek early treatment or medical assistance.



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In Ground Works: Task examples



Do

- Use mechanical lift whenever possible to lift long or heavy lengths of pipe into trenches.



Do not

- Throw long or heavy lengths of pipe uncontrolled into trenches.
- Lift alone with a bent or stooped back, or poor posture.
- Lift one-handed.



Do

- Two-man controlled lift to get pipe into trench.



Do not

- Let whacker-packer 'get away from you' or 'fight it' rather than letting the machine do the work.
- Working with a bent or stooped back, or poor posture.





Do

- Let the whacker-packer do the work, keeping close to the machine and push with a neutral back posture
- Use two hands with a firm grip on the tool and good base of support.



Do not

- Excessively bend your back or work with 'stooped' posture when joining pipes and working at low or ground heights – instead cycle through squatting, kneeling and crouching
- Working with a bent or stooped back, or poor posture.



Do

- Squat in trenches whilst working to avoid sustained or repetitive bending of the back.



Disclaimer

The information contained within is general in nature and is not related to your specific circumstances, situations, or medical conditions. Neither Master Plumbers' Association of Queensland (MPAQ) nor WorkCover Queensland will be liable for any injury or illness sustained for following this information and it is recommended to seek advice as to individual circumstances before using this information.

Safety Equipment Recommendations

Hitachi 13.5t Excavator (large jobs)



Purchase:

<https://hitachicm.com.au/machinery/excavators/#product-ZX135US-7>

Price on application

Hire: <https://www.easternplanthire.com/plant-hire-equipment/>

Price on application

Purchase: <https://hitachicm.com.au/machinery/excavators/#product-ZX48U-5>

Price on application

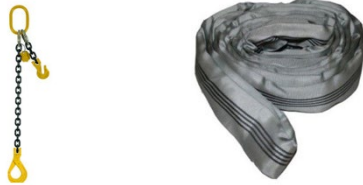
Hitachi 5t Excavator (small jobs)



Hire: <https://www.easternplanthire.com/plant-hire-equipment/>

Price on application

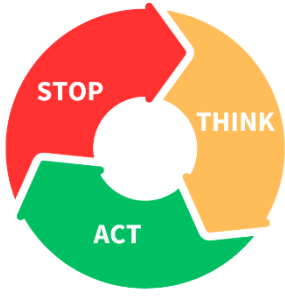
Excavator attachments
Chains and Slings



Ross Lifting Slings and Chains:

<https://rosslifting.com.au/collections/slings>

Price dependant on sling or chain type



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In Ground Works: Task specific dynamic warm-ups and strength exercises for you to own your health, safety and wellbeing.

Ankle and lower limb exercises targeting strength, mobility and balance for in ground works stage. (Consult a GP or Allied Health professional prior to commencing any new exercise program).

Single leg squats



As a warm-up, try 20-30 repetitions each leg, aiming to keep knee, hip and ankle in alignment. Add weights to perform at gym or home for strengthening.

Single leg balance with alternate knee lift



As a warm-up, try and hold 30 seconds each leg. For a challenge, add leg lift on the opposite leg or add an unstable surface like gravel, grass or in the gym, try a bosu or wobble board.

Squat to overhead reach



As a warm-up, try 20 repetitions, modify reaching down to a squat if you do not have good flexibility through your back or hips. Add dumbbells in the gym or at home for strengthening.

Back extension stretches



Try 10 repetitions backwards into extension especially after work where you have been repetitively bending forwards.

Acknowledgements

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For further information on workplace health and safety, please refer to:

[Hazardous Manual Tasks Code of Practice 2011](#)

[Work Health and Safety Regulation 2011](#)

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