DCS Dragline CLEANING SERVICES PTY LTD

MINING & INDUSTRIAL CLEANING

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Internal Tub/Rack Teeth (SWI)
Dragline

Owner: Dragline Cleaning Services Pty Ltd
Effective Date: 4/11/2020
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Version 1
Authorised by Justin Goodwin – General Manager

(SWI) – Internal Tub/Rack Teeth - Dragline

IMPORTANT – PRIOR TO COMMENCING THE TASK, identify any additional ***HAZARDS*** and ***CONTROLS*** that may be required to reduce the risk to a level as low as reasonably achievable.

Consider the skills and experience of the PEOPLE involved, the suitability of the EQUIPMENT to be used, and the workplace ENVIRONMENT. Any additions noted are to be submitted to the Document Owner for updates to this Work Instruction.

Related Procedures, Information and Documents *Documented information specifically related to the task, SOPs, SDS, OEM, permits etc.*	• Site specific Isolation SOP • Site specific Manual Handling SOP • SDS Genesis E-Greaser • Site Specific PTW • Confined Space • OEM - Vacuum Truck
Related Permits	• Site Permit to work • Confined Space Permit
Tools and Equipment *Specific tools and equipment needed to complete the task (other than standard equipment)*	• Paint Scrappers • Waste Bags • Buckets • Brooms • Spray Bottles • Degreaser • Shovels

Additional PPE *Specific PPE needed for the task (not including site standard minimum)*	• Dust Mask (When Required) • Respirator (When Required) • Gas Monitors • Two Way Radio • Overalls • Safety Glasses • Gloves • Hearing Protection (When Required) • Hard Hat • Head Lamps/Working Light (When Required) • Vacuum Truck
Skills or Roles *Specific skills or roles needed for the task*	• Work Area Familiarisation • Completion of work base training
Isolation *Specific isolation points relevant to the task are identified along with how the isolation will be verified or "tested for dead"*	**Isolation Point** • Group Isolation of equipment • Confirm all swing motors are isolated. If not, contact workers that are working on that swing motor. Do not work around unisolated swing pinion until personally isolated

Detailed Task Description	1. Escort DCS Field Team and DCS Supervisor to location

Detailed methodology considering all items listed above	2. General Group Isolation of the machine **a.** Lock on to group isolations/ equipment isolations as specified on RA and at Pre-start. Read group Isolation permit, look to see if hoist motor is under group isolation. If not, personally isolations at hoist motor. **b.** Confirm all swing motors are isolated. If not, contact workers that are working on that swing motor. Do not work around unisolated swing pinion until personally isolated
	3. Set up
	4. Interal Tub – Bulk **a.** Bulk remaoval roller path **b.** Bulk remove centre pin
	5. Rack Teeth – NDT (Can be priority and must start at this step first) **a.** Find rack teeth segment joints (some dragline have welded lettering by joints on top of tub) **b.** Bulk remove grease from 3 teeth either side of joint **c.** Spray e-greaser on bulk remove teeth, scrub with steel wool **d.** Clean e-greaser off with clean rags **e.** After NDT tested, paint with new grease (confirm with Lubies, proper type) **f.** If time permits, vacuum excess dust/dirt
	6. Pack up work area, double check work area if free of any debris and tools
	7. Report any defects to the supervisor

Job Steps	Known Hazards	Identified Controls	Responsible Person
1. Escort DCS Field Team and DCS Supervisor to location. - Ensure site access (people and fleet) and radio communication protocols are adhered to. Site access checks and Vehicle Compliance are	• Uncontrolled movement	○ Chock vehicle fundamentally stable	DCS Field Team and DCS Supervisor
	• Vehicle interactions	○ Escort/planned route/ communication procedures	
	• Mechanical breakdowns	○ Pre-start/up to standard maintenance	

Job Steps	Known Hazards	Identified Controls	Responsible Person
undertaken prior to site entry to ensure authorisations.	• Road conditions	○ Drive to conditions/monitor road conditions	
	• Other Workers in Area	○ Positive communication/two-way radio/Verbal	
2. General Group Isolation of the machine **a.** Lock on to group isolations/ equipment isolations as specified on RA and at Pre-start. **b.** Confirm all swing motors are isolated. If not, contact workers that are working on that swing motor. Do not work around unisolated swing pinion until personally isolated	• Electrical, Mechanical, Stored pressure	○ Identify energy source ○ Confirm all swing motors are isolated. If not, contact workers that are working on that swing motor. Do not work around unisolated swing pinion until personally isolated	DCS Field Team and DCS Supervisor
	• Uncontrolled release of energy sources	○ Positive isolation and secure ○ Place Tags, Locks or Permits	
	• Uncontrolled movement	○ Positive isolation and secure ○ Verify Isolation (Test for Dead)	
3. Set-up at location **a.** Participate in site prestart, sign onto Risk assessment, under-take a SLAM/Take 5, review scope with site representatives and DCS field Team. allocate Scope to teams of employees based on experience, capabilities, and authorisations.	• Electrocution / Release of energy sources	○ Positive isolation, lock tag test for dead ○ Identify Energy Source ○ Verify Isolation (Test for dead) ○ Conduct Risk Assessment	DCS Field Team and DCS Supervisor
	• Slips (Oil Spills, Grease Spills, Water)/trips (Poor housekeeping, Hoses, tools and equipment)/falls (access and egress)	○ Situational Awareness, appropriate footwear, 3 points of contact ○ Conduct Risk Assessment	
	• Pinch points (Doors, Hinges, Latches)	○ Situational Awareness, correct PPE, Stay out of the line of fire ○ Conduct Risk Assessment	
	• Noise Pollution	○ Conduct Risk Assessment	

Job Steps	Known Hazards	Identified Controls	Responsible Person
		○ Earplugs when needed, on person at all times	
	• Dust Pollution	○ Conduct Risk Assessment ○ Dust masks when needed, on person at all times, respirator, adequate ventilation	
	• Falling Objects	○ Drop Zone and Spotter	
	• Overexertions / Incorrect lifting techniques • Back injuries, sprains & strains	○ Team lift, fatigue management plans, correct lifting techniques, rotate tasks, mechanical lift if needed ○ Conduct Risk Assessment	
	• Dehydrations/Heat Stress	○ Drinking water on hand, work to conditions, regular breaks	
	• Other Workers in Area	○ Positive communication/two-way radio/Verbal, Barricades, signage/Tags, spotter when needed	
4. Interal Tub – Bulk **a.** Bulk remaoval roller path **b.** Bulk remove centre pin 5. Rack Teeth – NDT (Can be priority and must start at this step first) **a.** Find rack teeth segment joints (some dragline have welded lettering by joints on top of tub) **b.** Bulk remove grease from 3 teeth either side of joint **c.** Spray e-greaser on bulk remove teeth, scrub with steel wool	• Electrocution / Release of energy sources	○ Positive isolation, lock tag test for dead ○ Identify Energy Source ○ Verify Isolation (Test for dead) ○ Conduct Risk Assessment	DCS Field Team and DCS Supervisor
	• Slips (Oil Spills, Grease Spills, Water)/trips (Poor housekeeping, Hoses, tools and equipment)/falls (access and egress)	○ Situational Awareness, appropriate footwear, 3 points of contact ○ Conduct Risk Assessment	
	• Pinch points (Doors, Hinges, Latches)	○ Situational Awareness, correct PPE, Stay out of the line of fire ○ Conduct Risk Assessment	
	• Noise Pollution	○ Conduct Risk Assessment	

Job Steps	Known Hazards	Identified Controls	Responsible Person
d. Clean e-greaser off with clean rags **e.** After NDT tested, paint with new grease (confirm with Lubies, proper type) **f.** If time permits, vacuum excess dust/dirt with Lubies, proper type) Note: Each area is required to be designated on the scope of works provided by site, the list below is not specific order as each site requirement is as needs requested. Refer to each sub section with the know hazard identified the same for each.		○ Earplugs when needed, on person at all times	
	• Dust Pollution	○ Conduct Risk Assessment ○ Dust masks on person at all times, respirator, adequate ventilation	
	• Falling Objects	○ Drop Zone and Spotter	
	• Overexertions / Incorrect lifting techniques - back injuries, sprains & strains	○ Team lift, fatigue management plans, correct lifting techniques, rotate tasks, mechanical lift if needed ○ Conduct Risk Assessment	
	• Dehydrations/Heat Stress	○ Drinking water on hand, work to conditions, regular breaks	
	• Potentially Hazards Atmosphere	○ Confined Space, Permit, Gas Monitors and Radios	
	• Other Workers in Area	○ Positive communication/two-way radio/Verbal, Barricades, signage/Tags, spotter when needed	
	• Confined Space • Negative Pressure	○ Confined Space Permit, Radio, Gas Monitor ○ Trained and Competent	
6. Pack up work area, double check work area if free of any debris and tools - Remove Rubbish, tools, and equipment from job site. Ensure guarding or barriers are placed back in original position. Permits and job sheets to be signed off by appointed Supervisors. Remove	• Electrocution / Release of energy sources	○ Positive isolation, lock tag test for dead ○ Identify Energy Source ○ Verify Isolation (Test for dead) ○ Conduct Risk Assessment ○	DCS Field Team and DCS Supervisor

Job Steps	Known Hazards	Identified Controls	Responsible Person
Isolation Lock. Advise Supervisor of any comments or unfinished work. Pack-up vehicles ready to leave job site.	• Slips (Oil Spills, Grease Spills, Water)/trips (Poor house keeping, Hoses, tools and equipment)/falls (access and egress)	○ Situational Awareness, appropriate footwear, 3 points of contact ○ Conduct Risk Assessment	
	• Pinch points (Doors, Hinges, Latches)	○ Situational Awareness, correct PPE, Stay out of the line of fire ○ Conduct Risk Assessment	
	• Noise Pollution	○ Conduct Risk Assessment ○ Earplugs when needed, on person at all times	
	• Dust Pollution	○ Conduct Risk Assessment ○ Dust masks when needed, on person at all times, respirator, adequate ventilation	
	• Falling Objects	○ Drop Zone and Spotter	
	• Overexertions / Incorrect lifting techniques 2. Back injuries, sprains & strains	○ Team lift, fatigue management plans, correct lifting techniques, rotate tasks, mechanical lift if needed ○ Conduct Risk Assessment	
	3. Dehydrations/Heat Stress	○ Drinking water on hand, work to conditions, regular breaks	
7. Report any defects to the supervisor	4. NIL	○ NIL	DCS Field Team and DCS Supervisor

Stop Points *(Identified points in the task where the work is to stop for the completion of activities, checks of control effectiveness, inspections or tests)*		
Work Task Stop Points *(if any)* *Any need to stop during the task, where identified by the supervisor OR work Group*	**Identified Stop Points**	**What is to Occur**
	New workers to the area	Stop and Review Hazards
	Weather Changes	Stop and Review Hazards, Report to supervisor of change, before returning to work.
	Isolation Change	Stop and Review Hazards, Report to supervisor of change, before returning to work.
	User to Note any Additional Stop Points	**What is to Occur**

We have reviewed the task/work area and have identified any additional HAZARDS and implemented CONTROLS to reduce the risk to a level as low as reasonably achievable.

We have considered the skills and experience of the PEOPLE involved, the suitability of the EQUIPMENT to be used, and the workplace ENVIRONMENT and have determined that risk is at an acceptable level.

Review Acknowledgement *(Work Group and Supervisor)*				
	Name	**Signature**	**Name**	**Signature**
Work Group				
Supervisor	**Name**		**Signature**	