Purpose: This document outlines the governance framework, procedures, and compliance requirements for the replace of steel bracings (Defect LS-7) on the CHPP Centrifuge floor (Module 5, Grid F3-G3). The repair process addresses structural damage caused by continuous mining operations and degradation over time, ensuring compliance with Australian Standards AS4100.

Scope: The repair involves the removal of the existing bracings and their replacement with new ones, followed by post-repair inspection and testing, and the application of protective coatings in accordance with relevant Australian Standards. All activities shall be undertaken to restore structural integrity and ensure the safe operation of the conveyor system.

Asset Code: CHPP

Reference Drawings:

- J641MCA001-1

MATERIAL RISKS, HAZARDS AND CONTROLS		
Risk	**Description of Risk**	**Critical Controls**
	Manual handling.	Use certified lifting aids (chain blocks, spreader beams). Apply team lifts for components < 25 kg.
	Entanglement and crushing.	Consider the local site conditions and assess the risk of crushing. Assess the risks of injury or harm and implement control measures.
	Uneven or loose ground.	Visually check the work area prior to commencing task and remove and trip hazards.
	Loud noises.	Wear (double) hearing protection as required.
	Fall from height	Personnel WAH trained and competent. Harness and Lanyard Certified, Tested and Tagged. 100% hook up to be maintained when maintenance platform is not in use or where personnel are at risk of fall. e.g. Ladder access, arm guard removal. All risks to evaluated and assessed in JHA.
	Pinch points.	Consider the local site conditions and assess the risk of pinch points. Assess the risks of injury or harm and implement control measures.

MATERIAL RISKS, HAZARDS AND CONTROLS

Risk	Description of Risk	Critical Controls
	Dropped objects	Secure tools and materials at heights, use toe boards and debris nets, conduct exclusion zone planning.
	Exposure to Dust	Wear appropriate respiratory protection (P2 or P3 masks). Use dust suppression methods such as water sprays or vacuum extraction.

ADDITIONAL PPE REQUIRED

 Foot Protection	 Head Protection	 Breathing Protection	 Protective Clothing	 Safety Harness	 Eye Protection	 High Visibility	 Hand Protection	 Face Protection	 Hearing Protection	 Sun Protection
X	X	X	X	X	X	X	X	X	X	X

SPECIFIC COMPETENCIES, KNOWLEDGE AND SKILLS REQUIRED

1. Structural and Welding Personnel

- Proficiency in AS/NZS 1554 welding standards for structural repairs.
- Knowledge of oxy-fuel and plasma cutting techniques for structural modifications.
- Experience in material thickness assessment and patch reinforcement.

2. Site Engineers and Inspectors

- Understanding of AS 4100 steel structure requirements for column installations.
- Competency in non-destructive testing (NDT) to assess weld integrity.
- Knowledge of load-bearing principles and steel member replacements.
- Ability to interpret structural drawings and verify compliance during structural repairs.

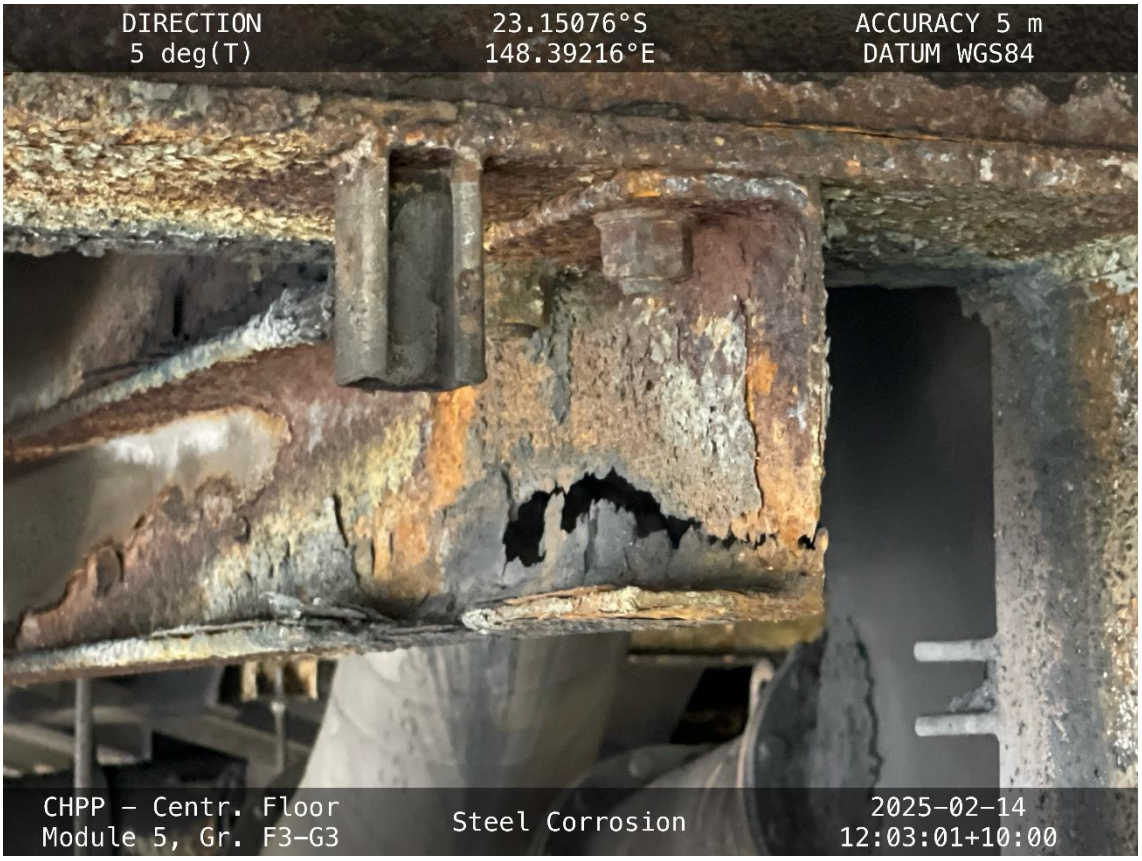
3. Safety Officers and Risk Management Personnel

- Certification in risk assessment methodologies and emergency response planning.
- Familiarity with hot work permitting, atmospheric monitoring and site safety protocols.

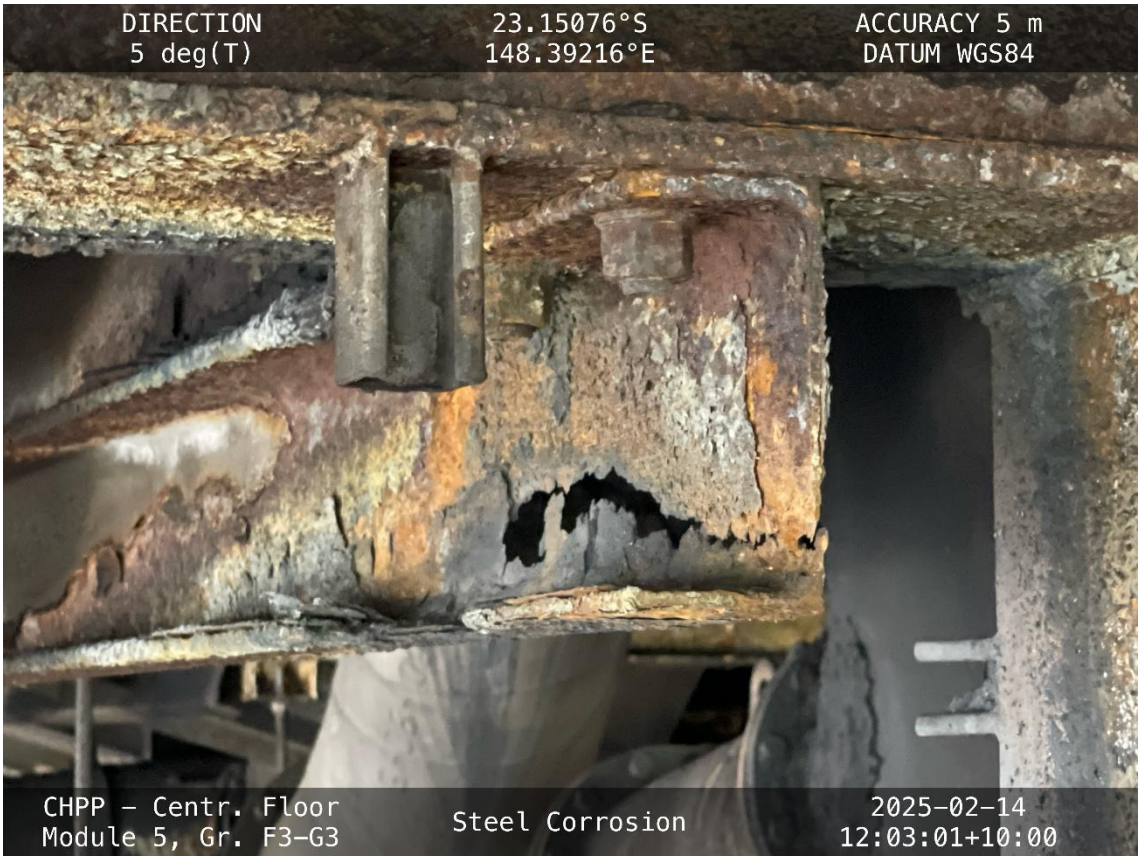
TOOLING AND EQUIPMENT REQUIRED
Removal Equipment
Certified lifting slings and chain blocks for beam handling.
Angle grinder
Cutting and grinding discs
Combination spanners and impact wrenches (M16)
Installation Equipment
Certified lifting slings and chain blocks for beam handling.
Torque wrench
Magnetic drill or hammer drill
HSS drill bits (Ø16.5 mm)

DEFECT INFORMATION
Description
Severe corrosion with significant material loss was observed on the structural frames including purlins and connections, located in Module 5, between Grid F3-G3. This deterioration has reduced the structural capacity, increasing the risk of compromised stability. The damage is likely due to prolonged exposure to a corrosive environment. If left unaddressed, further degradation may lead to structural failure, increased maintenance costs, and operational disruptions. It is recommended to restore the original cross-section and ensure structural integrity through material replacement and the application of a protective coating.
Risk Rating
Extreme [18]

DEFECT IMAGES



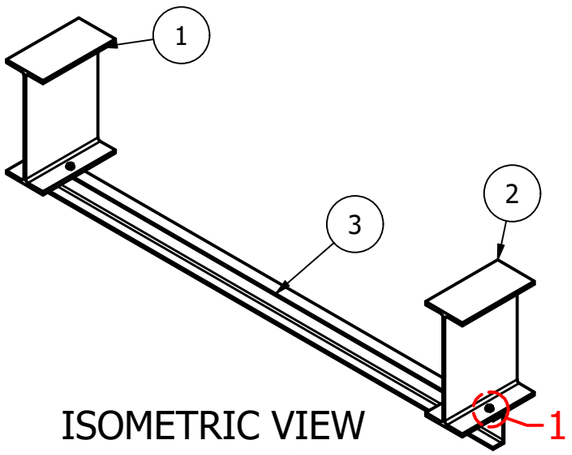
DEFECT IMAGES



REMOVAL AND REPARATION OF DAMAGED STRUCTURAL MEMBER
Phase 1: Pre-Tasks
Verify all the dimensions before the procurement process.
Delimitate the work area with mesh barricades and “No-Go Zone” signage.
Review and sign-off the Job Safety Analysis (JSA) and Safe Work Method Statement (SWMS) with the full crew.
Verify inspection tags and Safe Working Load (SWL) on all slings, pulleys and lifting lugs.
Confirm isolation of adjacent plant and tag-out any live services within the removal zone.
Brief the emergency response plan, muster point and access/egress routes before commencing work.
Phase 2: Removal phase
Secure the bracing using the designated lifting system for the repair works.
Remove the bolts at each end of every bracing member.
Lower the bracing slowly to the laydown area.
Phase 3: Cleaning phase
Mask off areas of the steel plate and surrounding infrastructure that will not be blasted or coated, using fire-retardant sheeting and masking tape as required.
Abrasive blast the surface of the beams supporting the bracings and surrounding affected steelwork class 2½ finish, removing rust, scale, and existing coatings.
Immediately following blasting, verify surface cleanliness and anchor profile depth in accordance with coating manufacturer’s technical datasheet.
Allow surface to remain clean and dry prior to welding operations to prevent contamination or flash rusting.
Phase 4: Installation phase
Adjust the length of the braces using the previously removed bracing as reference.
Drill holes at the ends of each brace where the bolts will be installed.
Lift the braces using the designated lifting system and align the brace holes with those on the support beams.
Apply lubricant into beam holes and insert bolts.
Phase 5: Protective coating applies
Clean all areas previously exposed to work using a wire brush to ensure adequate surface preparation.
Apply a primer coat compatible with the site’s corrosion protection system immediately after cleaning, in accordance with the coating manufacturer’s specifications.
Allow the primer to dry to the appropriate recoating condition before applying the intermediate and final coats.
Apply the full protective coating system to the new section of the bracing member, including overlap onto the existing steelwork to ensure complete encapsulation.

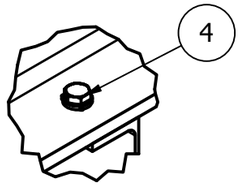
MATERIAL LIST			
Item	**Specification**	**Quantity**	**Notes**
Replacement Bracings	PFC 180x75x3m – Steel Grade 300	3 Units	-All measurements must be verified on site before the procurement process.
Structural Bolts	M16	12 Units	-
Sandblasting	GMA Garnet 30/60 mesh	$1m^2$	-
Protective Coating	As per Sojitz Standards Designation	$7m^2$	-

REMEDIATION COST	$	AUD
Material Cost	**$**	**2.510**
Labour Cost	**$**	**4.260**
Total Cost	**$**	**6.770**

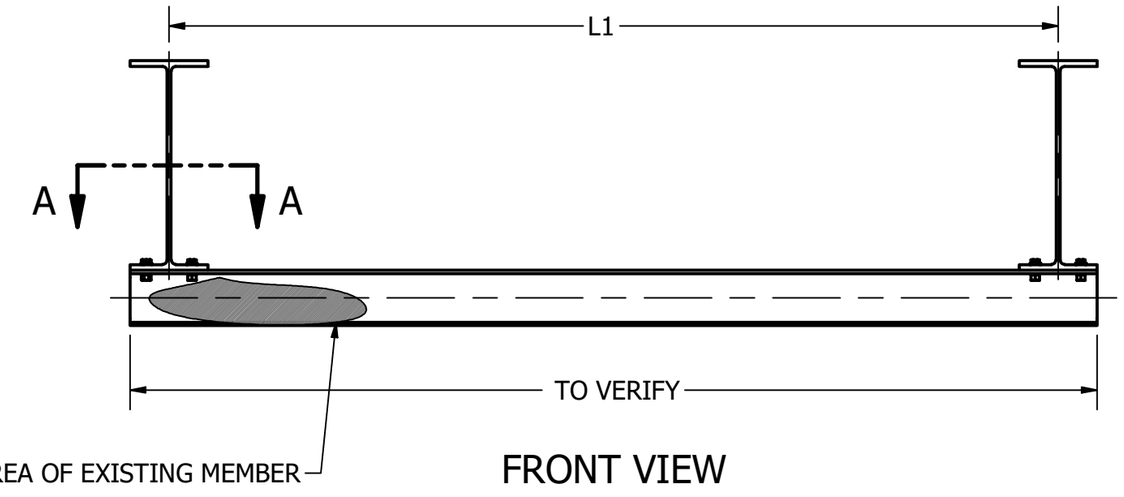


ISOMETRIC VIEW
SCALE 1 : 30

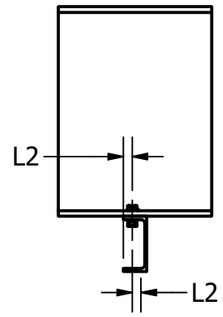
PARTS LIST - FOR MANUFACTURE				
ITEM	ITEM QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1	J641MCA001-1-FP-01	EXISTING BEAM	AS 3679.1 Gr 300
2	1	J641MCA001-1-FP-02	EXISTING BEAM	AS 3679.1 Gr 300
3	1	J641MCA001-1-FP-03	PFC TO BE REPLACED	AS 3679.1 Gr 300
4	4	AS 1252 - M16 x 55	HEX BOLT M16 - GR 8.8	GR 8.8
5	4	AS 1252 - M 16	FLAT WASHER - GR 8.8	GR 8.8
6	4	AS 1968 - 1976 - 16	HELICAL SPRING LOCK WASHER M16 - GR 8.8	GR 8.8
7	4	AS 1252 - M16	HEX NUT M16 - GR 8.8	GR 8.8



DETAIL 1
SCALE 1 : 7



FRONT VIEW
SCALE 1 : 20



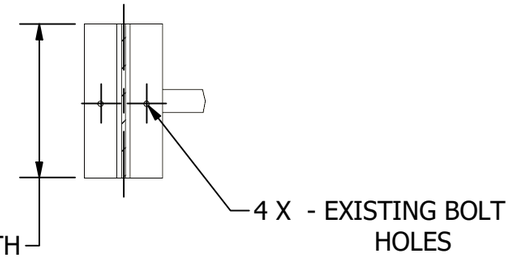
SIDE VIEW
SCALE 1 : 20

GENERAL ASSEMBLY NOTES:

1. ALL STEEL TO CONFORM WITH AS3678-250 & AS3679-300 U.N.O.
2. ALL BOLTS TO BE 8.8 STRUCTURAL U.N.O.
3. ALL LOOSE BOLTS TO BE WIRED TO ASSEMBLY.
4. PRIOR TO ASSEMBLY ALL PINS, BOLTS, THREADS & MACHINED SURFACES TO BE COATED IN NEVER SEIZE LUBRICANT, EXCEPT BEARING BORES.
5. ANY MOVING PARTS, (STEEL ON STEEL), TO BE GREASED.
6. DO NOT OBTAIN DIMENSIONS BY SCALING FROM THE DRAWINGS.
7. ALL DIMENSIONS ARE IN MILLIMETRES.
8. BOLT INSTALLATION ACCORDING TO AS/NZS 5131.
9. SEE THE DOCUMENT "J641-Remediation Guideline Defect LS-7" BEFORE CONSTRUCTION.

GENERAL DETAIL NOTES:

1. ALL STEEL TO CONFORM WITH AS3678-250 & AS3679-300 U.N.O.
2. LINEAR DIMENSIONS 100mm AND UNDER TO BE WITHIN ± 1.0mm
   LINEAR DIMENSIONS OVER 100mm AND UNDER 500mm ± 2.0mm
   LINEAR DIMENSIONS OVER 500mm TO BE WITHIN ± 3.0mm
   ANGULAR DIMENSIONS ± 0.25° U.N.O.
3. ALL FLAME CUTTING TO BE MINIMUM OF 25 um OR CLASS 2 U.N.O.
4. REMOVE ALL BURRS AND SHARP EDGES.
5. DO NOT OBTAIN DIMENSIONS BY SCALING FROM THE DRAWINGS. ALL DIMENSIONS ARE IN MILLIMETRES.
6. VERIFY ALL DIMENSIONS ON FIELD BEFORE MANUFACTURING AND INSTALLING.



SECTION A-A
SCALE 1 : 20

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CLIENT	Sojitz	LEVEL 27 101 COLLINS ST MELBOURNE, VIC 3000 AUSTRALIA PHONE +61 3 9653 9647 INFO@MINCKA.COM.AU		DO NOT SCALE 3RD ANGLE PROJECTION ALL DIMENSION IN mm UNLESS SHOWN OTHERWISE	CHECKED	JD	16/04/2025	SHEET	1 OF 1	Structural Defect Closure Gregory Coal Mine Defect LS-7	REVISION 0
CONTACT	Jodie Belleville				APPROVED	RC	16/04/2025	SCALE	1 : 30		
					MATERIAL	SEE PARTS		MASS (KG)	SEE PARTS		