TRACKDOZER MAINTENANCE

From the way we used to do it,

To the way we do it now..

Table 1. Relevant data taken from the U.S study of injuries involving dozers, 1997-1998

Category	Serious Injuries	Fatalities	Lost time Injuries	Lost workdays	Average of workdays lost
Injuries involving dozers.....	2,962	23	2,939	98,476	33.5
Mineworker activity					
Getting on or off dozer.....	875	1	874	30,889	35.3
Maintenance and repair dozer.....	612	3	609	17,978	29.4
Operating dozer.....	921	17	904	33,793	37.4
All others involving dozers.....	554	2	552	15,816	28.7

An Analysis of Serious Injuries to DozerOperators in the U.S. Mining Industry

By William J. Wiehagen, Alan G. Mayton, Jasinder S. Jaspal,
and Fred C. Turin

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health
Pittsburgh Research Laboratory


2DZ 905
D10R

Using harness & lanyard

First version of handrail

Prototype clamp & handrail

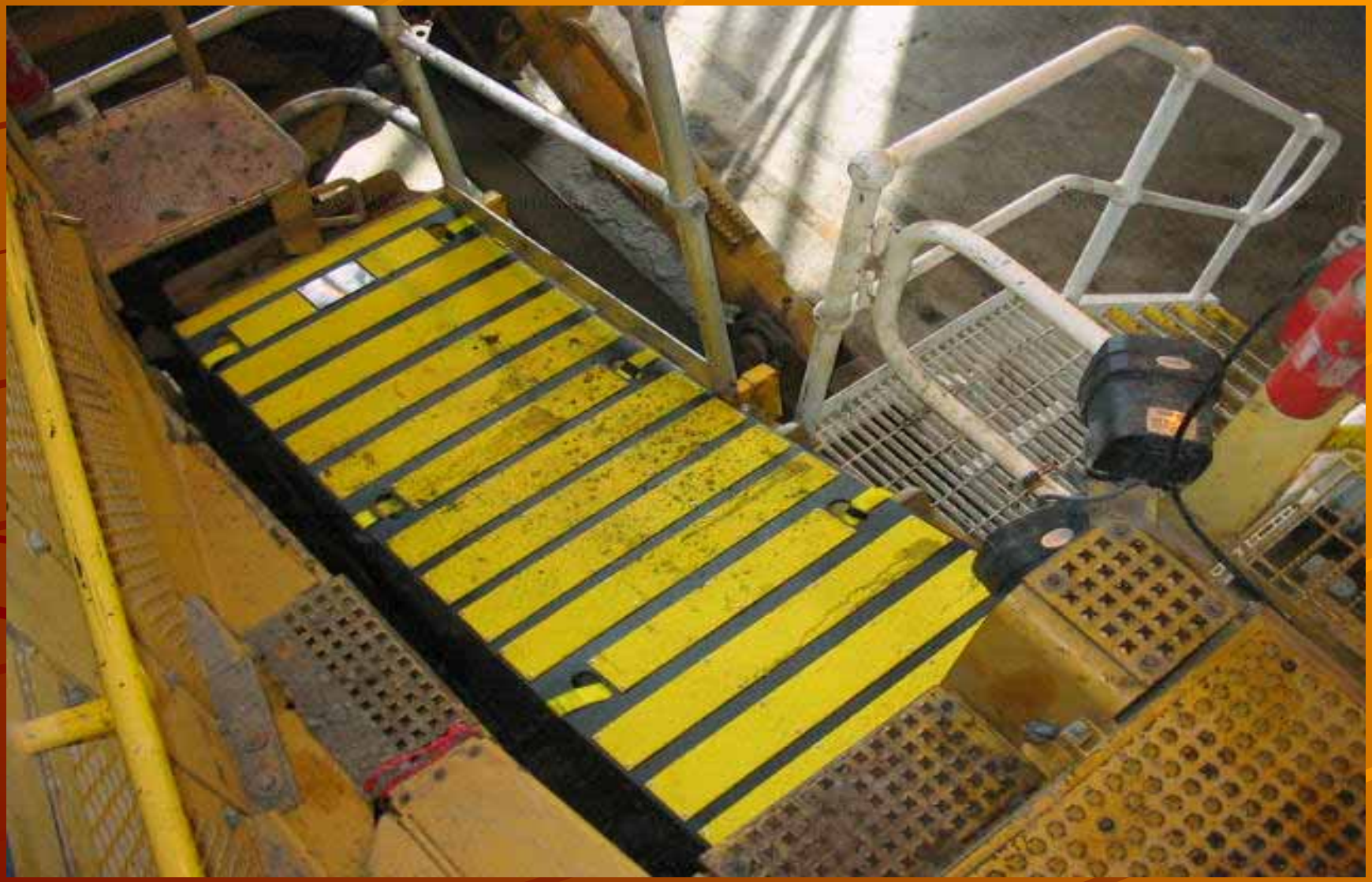
Alteration to remove trip hazard

Modification, sliding section

Final version of clamp

Handrails with mat fitted

View down from cab



Set up for engine work

Rails with no blade fitted

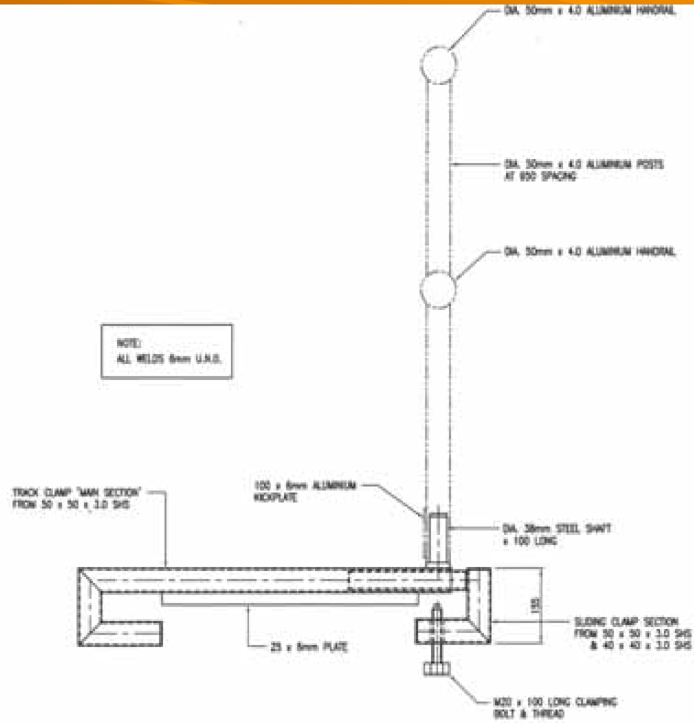
Stand for parts storage

1. Isolate machine to the relevant site standard
2. Ensure tracks are clean enough to allow secure fitting of the clamp assemblies.
3. Loose fit correct size rear clamp assemblies onto grousers as shown, far enough apart to suit the handrails. Make sure the one closest to the final drive has a safety bolt hole drilling in the vertical peg. Not the weight of each complete clamp is approximately 10Kg.

4. Install the outer clamp ends loosely into full depth, ensuring the rear clamp isn't pushed away from the grouser plate.

RISK ASSESSMENT STUDY- Performing maintenance tasks from dozer tracks

		INTRINSIC RISK				CURRENT RISK				RESIDUAL RISK			
No	HAZARDS	C	L	R	EXISTING CONTROLS	C	L	R	ADDITIONAL CONTROLS	C	L	R	
	Falling from dozer tracks while performing maintenance	2	C	L	Set up handrail system & use correct height access stairs	2	D	L		2	D	L	
	Handrails strong enough to prevent falls & comply with a relevant standard	2	C	L	Engineer supervised test of handrails to the 1000N standard in AS3868-1991	2	D	L	Engineer certification of design to AS 1657-1992	2	D	L	
	Incorrect installation of handrail system	2	C	L	Document procedure for how to fit & use handrail system	2	D	L	Brief all maintainers of the change & train in the use of the handrail system	2	D	L	
	Manual handling of the handrail system	2	C	L	Weigh components & notify personel of expected weights during training	2	D	L	Safe storage method	2	D	L	
	Trips while moving about on uneven grouser plates	2	B	L	Use of special non slip fibreglass mats on tracks	2	D	L		2	D	L	
	Foot falling into relief holes cut into grouser plates	2	B	L	Use of special non slip fibreglass mats on tracks	2	D	L		2	D	L	



TRACK CLAMP & HANDRAIL ARRANGEMENT

SCALE: 1=5

AS BUILT

DATE:	6-06-07	APPROVED:	R.S.
DRAWN:	P.C.	CHECKED:	R.S.
SCALES:	1=5 (A1); 1=10 (A3) U.N.O.		

STAFFORD ADAMSON
PROJECT MANAGERS & CONSULTING ENGINEERS
PO BOX 7130
TOOWOOMBA MAIL CENTRE
QLD 4352
Phone: (07) 4639 6600 Fax: (07) 4639 6300
Email: staffadam@staffadam.com.au

PROJECT: TARONG COAL - TEMPORARY HANDRAIL SYSTEM

TITLE: GENERAL ARRANGEMENT

DRAWING No. G0131-00-01 REVISION A

Approximate costs to set up..

- LH & RH Handrails plus 2 straight handrails and 4 track clamps to suit a D11

  $4384 Set

- Optional
- Single non slip mat x 2 = $1050 EA
- Folding non slip mat x 2 = $1600 EA