BAY 4 NORTH

1996

Item Name: Height Setting Tables	Item No. 205A-C
Name Plate:	2007-0
Associated Items: Individual	1 2 3 4 5 6 7 8 9 10 11 12
	8 9 10 11
4A 4 3 2	15
Photo: FILM No. No Number Photographed and inspected Decemb	er 1995

1996

icin iva	me: Hei	ght Setting	Tables				Item No.205a-c	
Conditio	on:	<u>.</u>		-				
The item	is in god	od/exceller	it operati	ng condition.				
_	ance Mai	trix Aesthetic	Social	Technology/	State His	storical Themes:		
				Research Potential	Category	☐ Moveable Item ☐	Industrial Relic	
Rare					Themes	☐ 13 Transport☐ 15 Utilities		
Repres- entative	E			_	 - -	16 Industry		
·····	_	_	_	_		☐ 18 Technology ☐ 20 Government Adm	inistration	
Stateme	nt of Sig	nificance						
operation	n for ove	er 50 year	s. The	item is signifi	cant to a	Vorkshops being assorting large number of form all part of the Spring S	ner workers and	
Conserv	ation Po	licy:	a . u					
		retained ir Group to	-		close by a	and be preserved as p	art of the Spring	
Policy In	nplemen	tation:						
rust is to	be remo	ved or trea	ated. All			g appropriate methods be treated with an ap		
Conserv	e. May r	eposition i	n same b	ay.				
			•					
Mainten	ance Scl	nedule		······································				
	ili externa		for rust	every 5 years.	Where ne	ecessary, treat as reco	mmended in the	
interpret	tation:			· · · · · · · · · · · · · · · · · · ·				
morpromisin.								

GODDEN MACKAY

OTHERS

			1000
ltem Name: [De Burgue Electric Shears		Item No. 206
Name Plate:	N/A	· · · · · · · · · · · · · · · · · · ·	
Associated It	ems:		
Individual	$m{\boxtimes}$		
Assemblage			
System			
Collection			
Description:	The De Burgue Electric Shears are	massive cast iron framed shoo	re which anarote
at low speed	The item is driven by a small slant	massive cast-iron manned shear	s which operate

Description: The De Burgue Electric Shears are massive cast-iron framed shears which operate at low speed. The item is driven by a small electric motor through a gear box and a very large driving gear which is meshed with the cam shaft of the shears. The item is equipped with its own Jib Crane and has its own jig for determining the length of the material to be cut. The shears can cut metal in excess of 50mm sections.

History: The item was installed prior to World War I. The rest of its history is unknown.

Function and Operation: The electric motor is started and the shears operated at low speed. This allowed stock to be fed through the jaws to the stock and cut to length.

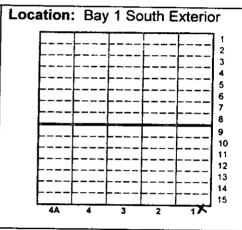
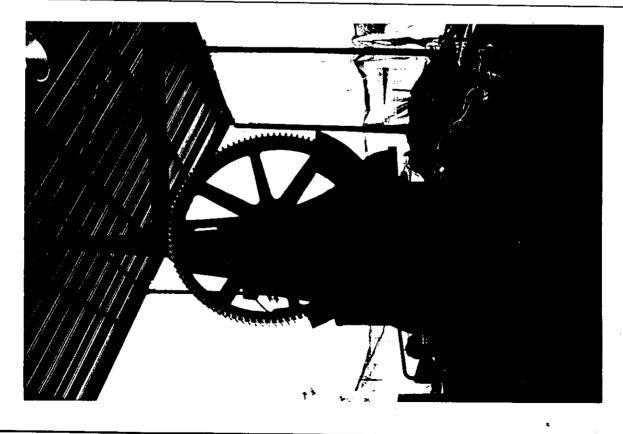


Photo: FILM No.

Photographed and inspected December 1995



Item Na	me: De	Burgue Ele	ectric She	ars		· · · · · · · · · · · · · · · · · · ·	Item No. 206			
Condition	on:		·							
In gener the item	In general, the item appears to be in operable condition providing power sources are connected and the item is cleaned, serviced and tested.									
The exte	ernal surf	ace of the	item has	patches of su	perficial rus	st and bare metal.				
Signific	ance Ma	trix		•	State His	storical Themes:	 			
g	Historical	Aesthetic	Social	Technology/ Research Potential	Category	☐ Moveable Item	☐ Industrial Relic			
Rare	Ø	Ø		Ø	Themes	☐ 13 Transport				
Repres-						15 Utilities				
entative	Ø			Ø		16 Industry				
on and vo	12.4	_	_	6.		18 Technology				
				-		20 Government A	dministration			
Stateme	nt of Sig	nificance			· · · · · · · · · · · · · · · · · · ·					
nature of	tion and f past wo	which had rk practice	general of s. The ite	engineering a	pplication. eration is e	trial piece exhibiting The item will yield asy to interpret fron	information on the			
Conserv	ation Po	olicy:								
and the operation	shear an nal. The	d punch co item is to	ollection. be prese	The item is t	o be recor ; cleaned,	ved as part of the percent of the pe	source and made			
Policy Ir	nplemen	tation:								
rust is to such as finish she	be remo Shell EN: ould be s crystallin	ved or trea SIS fluid or uitably poli e wax. All	ated. All or r polycrys ished and	external surfa talline wax. A I coated with a	ces are to All operatin an appropr	g appropriate methor be treated with an a g surfaces exhibiting iate sealant such as tre to be covered to	appropriate sealant g a normally bright s Shell ENSIS fluid			
Mainten	ance Scl	hedule:			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·				
Inspect all external surfaces for rust every 12 months. Where necessary, coat as recommended in the implementation section. Every 5 years internal surfaces should be inspected for rust. Any rust or oxidation product must be treated suitably by being removed and coated with an inhibitor and sealant. Inspect for physical damage and deterioration every 12 months and implement repair as necessary.										
Interpret	tation:									
*							•			

Item Name: Overhe	and C	rano	
Name Plate: N/A	sau c	raile	Item No. 207
Associated Items:			
Individua!			
Assemblage		Davy Press 1-24, 207	
Collection			
System			
Operational Groups			
Decemination			

Description: This crane consists of twin plate girder beams which taper towards the end. It was made by Craven Brothers and was probably located in another bay within the workshops. It would appear that the crane was originally driven by continuous rope, powered by a steam engine at one end of the workshop and later converted to electric power. This crane was mounted in this position, probably in 1926 and was dedicated to the operation of the Davy Press. The crane rail beams on the eastern and western side have been attached to new columns formed from high universal section steel.

History: The crane is of some considerable age and has been moved to this position from some other area of the workshop. It has been converted probably from rope drive to electric power. The crane was placed in this position probably prior to the Davy Press being installed so that it could assist with the installation of the Davy and possibly the removal of other items which were installed here previously.

Function and Operation: The crane is operated from a small cab which is suspended beneath the crane beams. The cab holds three motor controllers, one for each of the motors on the crane. These motors power the longitudinal movement of the crane, transverse movement of the crane carriage and of the crane hoisting cable.

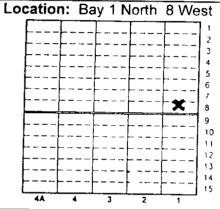


Photo: FILM No. No Number Photographed and inspected December 1995



GODDEN MACKAY PTY LTD, 78 GEORGE ST, REDFERN NSW 2016 PH: (02) 319 4811

1996

Item Na	Item Name: Overhead Electric Travelling Crane Item No. 207								
Condition: In general, the item appears to be in operable condition providing power sources are connected and the item is cleaned, serviced and tested. The external surface of the item has patches of superficial rust and bare metal.									
Significa	ance Mat	rix			State His	storical Themes:			
_	Historical	Aesthetic	Social	Technology/ Research Potential	Category	☐ Moveable Item	☐ Industrial Relic		
Rare	選	×		×	Themes	☐ 13 Transport ☐ 15 Utilities			
Repres-						16 Industry			
entative	×					☐ 18 Technology			
						20 Government A	dministration		
			9 21 1:		L				
assemble The iter engineer exhibits: Conserv Davy asset to its poor	Statement of Significance: The item was an integral part of the Eveleigh Locomotive Workshops being associated with their operation for over 90 years. The item is an integral part of the Davy assemblage. The item is impressive in size and form and exhibits a unity in its design and detail. The item has research and education potential for developing an understanding of early engineering practice. The item will yield information on the nature of past work practices. The item exhibits a high degree of structural integrity. Conservation Policy: The item is to retained in its present location and be preserved as part of the Davy assemblage and overhead crane collection to which it belongs. The item is to be reconnected to its power source and made operational. The item is to be preserved by being cleaned, serviced and maintained according to the implementation and maintenance schedules given below.								
All externant rust is to such as	be remo	ces are to ved or trea VSIS fluid (ted. All or polycr	external surfa	ces are to . All mov	g appropriate methors be treated with an a ling parts of electric	appropriate sealant		
Mainten	ance Scl	nedule							
	Inspect all external surfaces for rust every 12 months. Where necessary, coat as recommended in the implementation section.								
Interpre	tation:								

1996

					1330
Item Name: V	Vheel Shop Cra	ane			Item No. 208
Name Plate: 1 3 LC40	Vo nameplate.	Following marks:	Henry Berry and (Co. Leeds, SWL 7	TONNE, Class
Associated	Items:				
Individual					
Assemblage					
Collection					
System					
Operational Gro	oups ☑ W	heel Pressing 208	3, 209, 210, 211		
Description:					

Description: The crane consists of a heavy cast-iron pedestal which supports a large ring gear and a vertical king post. Suspended from the king posts is a rotatable crane assembly which consists of a horizontal jib, a vertical mast surrounding the king post, a pair of diagonal braces and a heavy counter weight. The operators cabin is also suspended from the king post. Mounted on the crane assembly are three electric motors, drive chains and rope tackle to enable loads to be hoisted, traversed or slewed.

History: The crane was installed in the wheel press shop in 1917 or 1918. It operated continuously from that time until its decommissioning in 1988. It was then dismantled and moved to Bay 4A for storage.

Function and Operation: The cranes were installed to lift and maneouvre bogies or bogy sets and individual wheels over the wheel press itself and onto the ring machine. The crane was operated by the crane driver using three motor controllers located within the cabin.

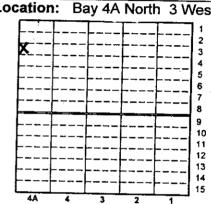
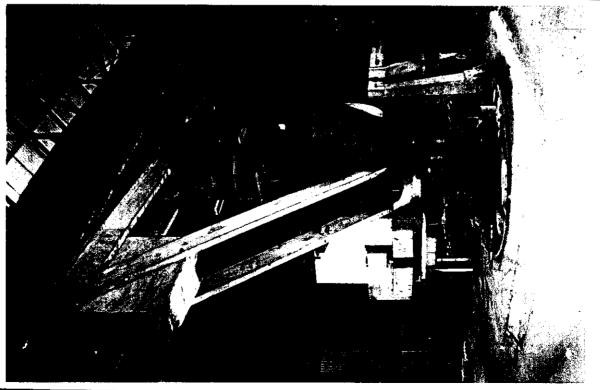


Photo: FILM No. 93-169-1-20 Photographed 1993. Inspected December 1995



1996

Itom Mamor Wheel Chan Crons									
item Na	Item Name: Wheel Shop Crane Item No. 208								
Condition	on: In ge	eneral, the	item ap	pears to be in	operable	condition providing po	wer sources are		
connect	ed and the	he item is	cleaned	, serviced and	d tested.	The external surface	of the item has		
patches	of superf	icial rust a	nd bare r	netal.			ì		
Signific	ance Ma	feiv			Ctata Lie	storical Themes:			
Signine	Affice IVIA	Aesthetic	Social	Technology/	State His	storicai illellies.			
				Research Potential	Category	_	Industrial Relic		
Rare	Q.				Themes	☐ 13 Transport			
Repres-						15 Utilities			
entative					1	☐ 16 Industry			
	_	_				☐ 18 Technology			
						20 Government Adm	ninistration		
being as Shop of represer is impre- and edu yield info integrity.	Statement of Significance: The item was an integral part of the Eveleigh Locomotive Workshops being associated with their operation for over 70 years. The item is an integral part of the Wheel Shop operational group. The item is an integral part of the Wheel Press Shop. The item represents former manufacturing technologies now rarely evident in operating workshops. The item is impressive in size and form and exhibits a unity in its design and detail. The item has research and education potential for developing an understanding of early engineering practice. The item will yield information on the nature of past work practices. The item exhibits a high degree of structural integrity. Conservation Policy: The item is to be preserved by being cleaned, reassembled, serviced and maintained according to the schedule below.								
All exter rust is to such as	be remo	ces are to oved or trea SIS fluid on	ated. All r polycrys	external surfa stalline wax. (ices are to Grease as	g appropriate method be treated with an ap appropriate. ent ingress of dust.			
Conserv	e. Reloc	ate in new	bay or e	xternally.					
Mainten	ance Sc	hedule							
Inspect	еvегу 3 у	ears.							
							_		
Interpre	etation:								
							ļ		
							, 1		
							ſ		
E .									

1996

Item Name:	Wheel Shop Cra		Item No. 209		
Name Plate: 3 LC41	No nameplate.	Following marks:	Henry Berry a	nd Co. Leeds, S	WL 7 TONNE, Class
Associated	Items:				
Individual					
Assemblage					
Collection					
System					
Operational G	eroups ☑ W	heel Pressing 208	3, <mark>209, 210, 211</mark>		

Description: The crane consists of a heavy cast-iron pedestal which supports a large ring gear and a vertical king post. Suspended from the king posts is a rotatable crane assembly which consists of a horizontal jib, a vertical mast surrounding the king post, a pair of diagonal braces and a heavy counter weight. The operators cabin is also suspended fro the king post. Mounted on the crane assembly are three electric motors, drive chains and rope tackle to enable loads to be hoisted, traversed or slewed.

History: The crane was installed in the wheel press shop in 1917 or 1918. It operated continuously from that time until its decommissioning in 1988.

Function and Operation: The cranes were installed to lift and maneouvre bogies or bogy sets and individual wheels over the wheel press itself and onto the ring machine. The crane was operated by the crane driver using three motor controllers located within the cabin.

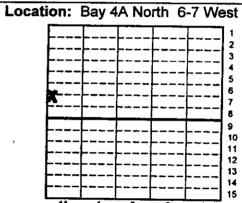


Photo: FILM No. 93-169-3-8A

Photographed and inspected December 1995



1996

Item Na	me: VVh	eel Shop C	rane				Item No. 209
Conditio	n: In a	onerel the	:4			***	
connecte	ad and ti	eneral, ine he itom is	item app	ears to be in	operable	condition providing	power sources are
natches	of superf	icial rust a	oleaneu, ad bare m	serviceu ario	ı testeti.	The external suna	ace of the item has
patorics	or superi	iciai iust ai	iu baie ii	iciai.			İ
Ī							
Significa	ance Ma	trix	.		State His	storical Themes:	
	Historical	Aesthetic	Social	Technology/	Otate ins	otorical inclies.	
				Research Potential	Category	☐ Moveable Item	☐ Industrial Relic
Rare					Themes	13 Transport	
	_	_	_	_		15 Utilities	
Repres-			•			☐ 16 Industry	
entative						☐ 18 Technology	
						20 Government	Administration
Chahama	-4 -6 Ol-		TI :				
Stateme	ent of Sig	Initicance:	: The Itel	m was an inte	egral part o	of the Eveleigh Loc	omotive Workshops
Chan as	socialed	with their	operation	for over /U	/ears. Ind	e item is an integra	al part of the Wheel
controp of	to forma	group.	rne item	ıs an ıntegi	al paπ or	the Wheel Press	Shop. The item
ie impres	eive in e	ite and for	m and a	mologies now	rarely evic	ent in operating w	orkshops. The item
and educ	estion not	eze anu ioi Iential for d	iii and ex leveloping	kniibits a unity	n its desi	gn and detail. The	e item has research actice. The item will
							degree of structural
integrity.	iiiialioii (JIS LIIC HALL	ile oi pas	t Work practic	CS. 1116 IU	eni eximple a riign	degree or structural
gy.							
Conserv	ation Po	licy: The	item is to	o be preserve	ed by being	cleaned, reassen	nbled, serviced and
		ding to the			·,	g 0.000u, , 00.000	
Policy In	nnlemen	tation					
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
All extern	nal surfac	ces are to	be clean	ed and degre	ased using	appropriate meth	ods. All superficial
							appropriate sealant
such as	Shell EN	SIS fluid or	polycryst	alline wax. G	rease as a	ppropriate.	'' '
All movin	ig parts o	of electric m	notors are	to be covere	d to preve	nt ingress of dust.	
0	. D-I	_4_ 4	4				
Conserve	e. Keloci	ate to new	bay.				
Mainten	anca Sci	andula .					
.v.atc11	anoe Jul	···uult		-			
Inspect e	very 3 ve	ears.					
	, .						
							ĺ
1-4	L_AT						
Interpret	ation:						
			•				

Item Name: Th	e Flange I	Press	Item No. 210
Name Plate: B	& S Mass	ey Ltd Manchester, England. NSWTD HT 3753 SO.	
Associated	items:		
Individual			
Assemblage			
Collection			
System	ū		
Operational Gro	ups 🗹	Wheel Pressing 208, 209, 210, 211	

Description: The Press consists of an upright chassi housing a drive mechanism and hydraulics and a set of horizontal wheel support arms near the floor level. The chassi is 1240mm long, 830mm wide and stand 1460 mm high. The chassi is in two sections, comprising a hollow base 1330 high of cast iron or cast steel with a wall thickness of 40mm and a ferrous cap 160mm high. The machine itself is complex and each one of the parts of the machine consists of several items.

History: This Flange Press or Rim Press was originally located at Chullora Workshops and was transferred to Eveleigh in 1965. Its construction and mode of operation indicates that it was manufactured prior to World War I.

Function and Operation: The Flange Press was specifically designed to lock rims onto the wheel centre. It is believed a circlip was placed into a recess on the outer edge of the wheel and the edge of the rim was rolled over this circlip to retain it. None of the informants interviewed had seen the Flange Press in operation.

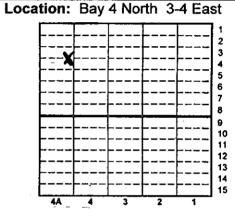


Photo: FILM No. 93-169-1-8 Photographed and inspected December 1995



GODDEN MACKAY PTY LTD, 78 GEORGE ST, REDFERN NSW 2016 PH: (02) 319 4811

1996

Item Na	me: The	Flange Pr	ess				Item No. 210			
Condition	on:						<u> </u>			
the item	In general, the item appears to be in operable condition providing power sources are connected and the item is cleaned, serviced and tested. The external surface of the item has patches of superficial rust and bare metal.									
Signific	Significance Matrix State Historical Themes:									
	Historical	Aesthetic	Social	Technology/ Research Potential	Category	☐ Moveable Item ☐	Industrial Relic			
Rare					Themes	13 Transport				
Repres-						☐ 15 Utilities☐ 16 Industry				
entative						18 Technology				
-						20 Government Admi	inistration			
Stateme	ent of Sig	nificance			· ·					
group. which ha now rare developi nature o	The item ad genera ely evide ng an un	is a largi il engineer nt in opera derstandin rk practice	e, rare, i ing applic ating wor ig of earl	industrial piec cation. The ite rkshops. The ly engineering	e exhibiting representation in the manner of	of the Wheel Press s of massive cast-iron of ents former manufacture research and educate The item will yield info e of structural integrity.	construction and ing technologies ion potential for ormation on the			
The item	n may be	displayed i				Bays 1-4a. The item is the implementation ar				
Policy I	mplemen	tation:								
superfici appropri	al rust is	to be re	moved o	or treated. A	II external	reased using appropria surfaces are to be illine wax. Displayed i	treated with an			
Mainten	ance Scl	redule								
Inspect all external surfaces for rust every 3 years. Where necessary, treat as recommended in the implementation section.										
Interpre	tation:					***************************************				
				•			ļ			
							Ì			

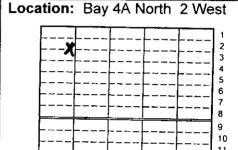
13

14. 11					
Item Name: 7	The Wheel P	ress			Item No. 211
Nama Blata	Fielding on a	I Diatilitati Oli			
markings.	rielding and	i Platt Ltd, Glouc	estor, England.	There were no other rea	dily observable
Associated	Items:	***			
Individual					
Assemblage					
Collection					
System					
Operational Gr	roups 🗆	Wheel Pressing	208, 209, 210,	211	

Description: The Wheel Press consists of a massive vertical frame, the horizontal bars of which support a hydraulic ram and a massive cast steel retaining bar which held the axle of bogey assemblies, the wheels of which were to be removed or pressed on. The Wheel Press is almost 6 metres long, 3 metres high and about 1 metre wide. Its mass is estimated at 10 tonne.

History: The item was installed in the Wheel Press Shop in 1917. It has remained in that position and was used until about 1986. A new Wheel Press was located in Bay 9 of the Workshops and this press was used only on certain occassions.

Function and Operation: The Wheel Press was used to press newly tired wheels or new wheels onto axles. It was also used to remove wheels from axles for re-tiring or repair. The bogey assembley, or axle, was placed in grooves in the support mechanism and the wheel was pushed on or taken off by hydraulic pressure generated by the Wheel Press itself.



GODDEN MACKAY PTY LTD, 78 GEORGE ST, REDFERN NSW 2016 PH: (02) 319 4811

Photo:

FILM No. 93-169-1-10

Photographed and inspected December 1995

1996

Item Na	me: The	Wheel Pre	ess				Item No. 211	
Conditi	on: In ge	eneral, the	item app	pears to be in	operable	condition providing pov	wer sources are	
connect	ed and th	ne item is	cleaned,	serviced and	tested.	The external surface	of the item has	
patches	patches of superficial rust and bare metal. The painted surface of the item is deteriorating.							
Signific	ance Mat		Cartal	T	State His	storical Themes:	-	
	nistorical	Aesthetic	Social	Technology/ Research Potential	Category		Industrial Relic	
Rare					Themes	☐ 13 Transport ☐ 15 Utilities		
Repres-						☐ 16 Industry		
entative						☐ 18 Technology		
						20 Government Admi	nistration	
being as exhibitin	ssociated g massive	with their of cast-iron	operatior construc	n for over 50 y ction and whic	ears. The	of the Eveleigh Locomo e item is a large, rare, eral engineering applic dent in operating works	industrial piece ation. The item	
has rese The item number	earch and will yield of former	education informatio	potential n on the nd memb	for developin nature of past pers of specia	g an under work prac	rstanding of early enging ctices. The item is sign ocieties. The item and	eering practice ificant to a large	
Conserv	ation Po	licy:						
The item	is to be r	relocated to	any Ba	y beside 4A aı	nd preserv	ed according to the Scl	nedule below.	
Policy li	mplemen	tation:						
				nders cleaned dried and gre		l, all bearings and glanderevent rust.	ds repacked, all	
All movir	ng parts o	f electric m	otors are	e to be covere	d to prevei	nt ingress of dust.		
Relocate	to any B	ay beside	4A.					
Mainten	ance Sch	nedule						
	all externa ntation se		for rust e	every 5 years.	Where ne	ecessary, treat as recor	mmended in the	
Interpre	tation:							
							1	

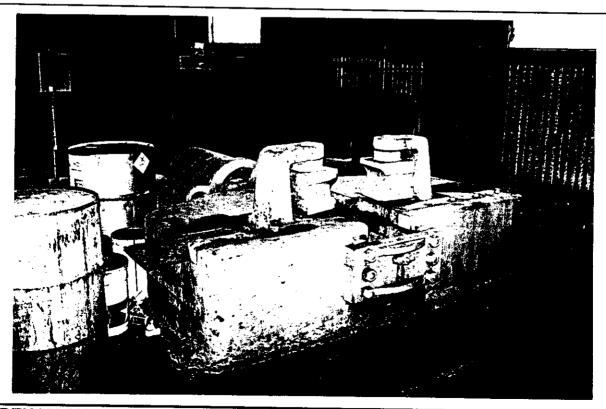
1996

Maria Alexandria		CENTATION	1996
Item Name: Hydraulic Pipe Bender			Item No. 212
Name Plate:			
Associated Items:		-	
Individual 🗆			
Assemblage 🔲			
Collection			
System			
Operational Groups			
Description: The Hydraulic Pipe Bender of be described as over-designed. It has a hy two large rotating mandrels, dies in which the History: There is no information on the his	oraulic ram which is fitte le pipe is pressed.	ed with a return va	alve. There are
Function and Operation: The item was o		on: Bay 4A North	n E G E not
plumbers and coppersmiths. A pipe to	be bent was	Day 4A NOIL	1 5-6 East
In some cases the mandrel was made froregon. The hydraulic was allowed into	paped mandril. Om a block of the ram by		1 2 3 4
means of a lever and the mandrel moved which was supported against the dies a through the desired angle. The bent pipes	onto the pipe ind was bent were used for	X	6 7 8 9
a wide variety of functions throughout the w	orkshop.		10 11

Photo:

FILM No. 93-169-1-1

Photographed and inspected December 1995



1996

Item Na	me: Hyd	raulic Pipe	Donder	······				
		aunc Pipe	Bender				Item No. 212	
Condition	on:	••						
the item	is cleane	d, serviced	d and tes	operable condited. The extended in the item of the ite	rnal surfac	iding power sources ar se of the item has pato iorating.	re connected and thes of superficial	
Significa	ance Mat	rix	. **		State His	storical Themes:		
	Historical	Aesthetic	Social	Technology/ Research Potential	Category	_	Industrial Relic	
Rare					Themes	☐ 13 Transport		
D						15 Utilities		
Repres-						☐ 16 Industry		
entative	–					☐ 18 Technology		
						20 Government Adm	inistration	
exhibiting is impres and educ yield info interpret	being associated with their operation for over 100 years. The item is a large, rare, industrial piece exhibiting massive cast-iron construction and which had general engineering application. The item is impressive in size and form and exhibits a unity in its design and detail. The item has research and education potential for developing an understanding of early engineering practice. The item will yield information on the nature of past work practices. The item and its operation is easy to interpret from its existing fabric. Conservation Policy: The item is to be relocated to any Bay except Bay 1-4A and preserved according to the Schedule below.							
Policy In	-							
The mac internal b	hine is to are meta	be strippe I surfaces	d, all cyli are to be	nders cleaned dried and gre	l and dried eased to pr	l, all bearings and glar event rust.	ıds repacked, all	
rust is to	All external surfaces are to be cleaned and degreased using appropriate methods. All superficial rust is to be removed or treated. All external surfaces are to be treated with an appropriate sealant such as Shell ENSIS fluid or polycrystalline wax.							
Relocate	to any Ba	ay beside 4	4A .					
Maintena	ance Sch	edule					<u>, </u>	
Inspect a implemer	ll externa ntation se	l surfaces ction.	for rust e	every 5 years.	Where ne	ecessary, treat as reco	mmended in the	
Interpret	ation:							
						•		
					•			

1996

Item Name: Hydraulic Press	1996
Hem Name. Hydraulic Press	Item No. 213
Name Plate: N/A	
Associated Items: Individual	nder of a 19th
for compressing material prior to clamping. Its precise original function is unknown. Location: Bay 4A North Action is unknown.	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 1
Photo: FILM No. Photographed and inspected December	er 1995

EVELEIGH LOCOMOTIVE WORKSHOPS MACHINERY CONSERVATION 1996 Item Name: Hydraulic Press Item No. 213 Condition: In general, the item appears to be in operable condition providing power sources are connected and the item is cleaned, serviced and tested. The external surface of the item has patches of superficial rust and bare metal. Significance Matrix State Historical Themes: Historical Aesthetic Social Technology/ ☐ Moveable Item ☐ Industrial Relic Research Category Potential ☐ 13 Transport 図 **Themes** X ¥ Rare ☐ 15 Utilities Repres-16 Industry entative ☐ 18 Technology ☐ 20 Government Administration Statement of Significance The item was an integral part of the Eveleigh Locomotive Workshops being associated with their operation for over 50 years. The item evidences the versatility of the workshops in the manufacture of tools and machines. The item and its operation is easy to interpret from its existing fabric. The item exhibits a high degree of structural integrity. **Conservation Policy:** The item is to be removed to Bay 10N. **Policy Implementation:** The machine is to be stripped, all cylinders cleaned and dried, all bearings and glands repacked, all internal bare metal surfaces are to be dried and greased to prevent rust. Maintenance Schedule

Inspect all external surfaces for rust every 5 years. Where necessary, treat as recommended in the implementation section.

Interpretation:

Item No. 214 Item Name: Air Compressor - Atlas Copco. Twin Two Stage

Name Plate: Atlas Copco Air Compressor Type ER8 Serial No. A240036 Max Presure Max R/M 500 kg/cm² 8.8 lb/sq.in 125

Manufactured by Atlas Copco, Stockholm, Sweden Engine: ASEA Mot 3 50 SVN GA 106

385 KVA x 09 500 R/M 35PP 415 VY

Associated Items: Individual Assemblage Collection

Air Compressor 214-217

System

N.5645410

Operational Groups

Description: The Atlas Copco is a 90 degree twin two stage air compressor run by an integrated ASEA electric motor of 50 horse power. The motor is direct coupled to a gear box unit on top of which is mounted on the large vertical piston of the primary cylinder. Air is brought to this via a 15 inch (375mm) steel welded pipe which discharges into the top cylinder. The compressed air is then passed directly into an inter-cooler which cools the air and is mounted immediately above the second stage piston. The air enters the second stage piston and, from there, passes into the main header pipe and to the air receiver.

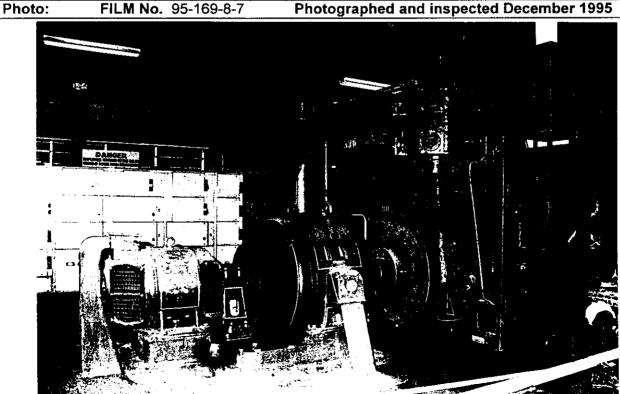
History: The compressor house supplied a high pressure air for the whole of the Eveleigh Workshops including the Carriage Workshops. Originally, there were four cooling towers mounted on the north side of the building, two of these have been removed and are believed to be down at the ACDEP Depot. The cooling towers at ACDEP would be suitable for connecting to this type of machinery. The coolers supplied cool water to reduce the temperature of the compressed air.

Function and Operation: The air compressors at Eveleigh tended to work continuously for eight hours a day passing compressed air through a number of receivers throughout the site. In general, the Atlas Copco supplied air on demand. When the demand was reduced the electric motor still functioned but the machine was not under load.

Air Compressor House Location: adjacent to the Explorer Maintenance Workshop. (North of the new Erecting Shop and outside the Masterplan area.

The cabinet containing the transformers for this item is immediately to its south. These cabinets contained the usual array of circuit breakers and current control and feed the excitor, the motor and the small water pump which pushed the circulating water through the system.

Photographed and inspected December 1995



Item Name: Air Co Impe	Item No. 215		
		Rand Co. New York, USA Imperial Type 10.	1
Associated It	tems:		
Individual			
Assemblage			
Collection		Air Compressor 214-217	
System			
Operational Groups			

Description: This is the largest machine in the shop and is about 9 metres long, including the belt, which drives the machine from the stand-alone motor. The compressor foundation is about 3.5 metres wide and it stands in excess of 3 metres high, including the safety valve and the exit pipe. Air enters the No.1 cylinder through an adjacent pipe which has a simple cylindrical screen to keep out unwanted solids. The partially compressed air passes through the inter-cooler into the smaller second piston and thence to the header pipe. The valving on this machine is operated by shaft and the whole of the machine is of mechanical rather than electrical design. It is believed that the valving on this is of the simple D-type. There is no date on the machine but it is believed to have been manufactured about 1914. The fabric belt is 450mm wide and the fly-wheel 2.3metres in diameter. It would appear to weigh in excess of 2 tonnes. The electric motor, which drives the compressor is of 50 horsepower. The switch gear is contained in a small cabinet adjacent to the motor and has the insignia WB Williams & Bennett Pty Ltd of Melbourne, Victoria. Like all the switch gear in the building it has an on-off switch for both the pump, the fan, as well as for the compressor.

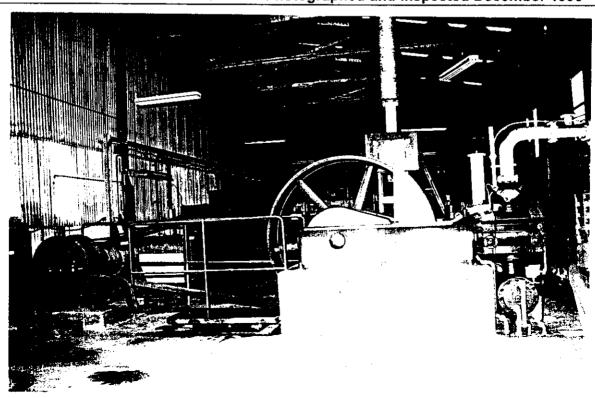
History:

Function and Operation:

The Ingersoll Rand Compressor supplied air on demand with the electric motor being activiated by a artenoid trigged by pressure in the system.

Location: Air Compressor House adjacent to the Explorer Maintenance Workshop. (North of the new Erecting Shop and outside the Masterplan area.

Photo: FILM No. 95-169-8-0 Photographed and inspected December 1995



Item Nam	tem Name: Air Compressor Ingersoll - Rand. Co New York, USA Imperial Type 10. Parallel Twin 2 Stage						
turned ov	er and o	perated with	a minir	nal amount of	f service.	 d. It is believed that the However, it should be operated prior to being 	noted that no air ['
Significa	nce Mat	rix		•	State His	storical Themes:	
	Historical		iocial	Technology/ Research Potential	Category	☐ Moveable Item ☐	Industrial Relic
Rare					Themes	13 Transport	
_						☐ 15 Utilities	
Repres-	rø	×		×		16 Industry	
entative	×	<u>. </u>	_			☐ 18 Technology	inintantion
					1	20 Government Adm	inistration
The item operation understa existing f	was an for ove nding of fabric. T	er 60 years. early engine he item exhi	The i ering p	tem has rese	earch and item and it	Norkshops being asso education potential for s operation is easy to integrity.	or developing an I
Conserv		_					
recomme recomme end of B	sors sim ended th lav 1 or	ilar to this we at this item to other suitab	ere ofte oe remo le locat	n driven from wed to the Lo ion in a suital	Tine shafts comotive V bly constru	type, having horizonta or by stand-alone stea Vorkshops and be inst acted cabinet. The ite am system into operation	am engines. It is alled at the north m could then be
Policy Ir	npleme	ntation:					
Before ir determin its install	ied. If th	ne item is in	icy, it is the cor	s essential thandition it is be	at the item lieved to b	n be stripped and its per then design work ca	precise condition in commence for
Mainten	ance Sc	hedule					
The item qualified		stalled in Ba	ay 1, w	ould be main	tained acc	ording to a schedule	determined by a
Interpre	tation:				<u> </u>		
meibie	tauvii.						
1							

Item Name: Thompson 90 degree V Twin 2 Stage Compressor Item No. 216									
Name Plate: The	417.	Size:	22½ -						
13½ 12". Speed:	333 Da	ate 8-4-52							
Associated	Items:								
Individual									
Assemblage									
Collection	☑	Air Compressor 214-217							
System									
Operational Group	os 🗆								

Description: This air compressor has a stand-alone motor with an attached starter motor. The starter motor is direct coupled to the main motor and the brushes of the main motor are open with a mesh cover. The large inter-cooler is vertical and is placed on the south side of the second cylinder. Air enters the primary cylinder through a 250mm pipe via the roof, passes to an air filter and then to the vertical No.1 cylinder. The whole machine is of massive cast-iron construction bolted together. There is the most impressive power panel at the end of the machine against the south wall. It contains a start switch for the pump, fan and the compressor. This machine, like all others, is fitted with an emergency stop.

History: The compressor house supplied a high pressure air for the whole of the Eveleigh Workshops including the Carriage Workshops. Originally, there were four cooling towers mounted on the north side of the building, two of these have been removed and are believed to be down at the ACDEP Depot. The cooling towers at ACDEP would be suitable for connecting to this type of machinery. The coolers supplied cool water to reduce the temperature of the compressed air.

Function and Operation: The air compressors at Eveleigh tended to work continuously for eight hours a day pressing compressed air through a number of receivers throughout the site. In general, the Thompson supplied air on demand. When the demand was reduced the electric motor still functioned but the machine was not under load.

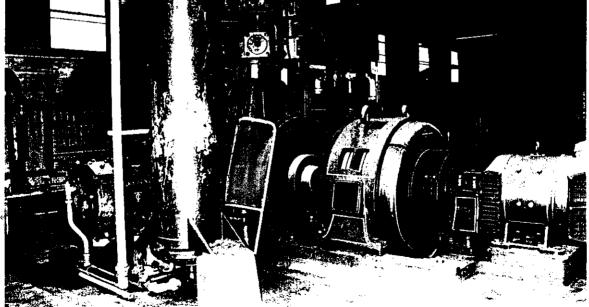
Location: Air Compressor House adjacent to the Explorer Maintenance Workshop. (North of the new Erecting Shop and outside the Masterplan area.

The cabinet containing the transformers for this item is immediately to its south. These cabinets contained the usual array of circuit breakers under current control and feed the excitor, the motor and the small water pump which pushed the circulating water through the system.

FILM No. 95-169-8-6

Photo:

Photographed and inspected December 1995



1996

Item Name: Thompson 90 Degree V Twin 2-Stage Compressor Item No. 216										
Conditi	on: The	condition o	of this ma	chine is susp	ect It app	ears that work was col	mmencing for its			
overhau	Condition: The condition of this machine is suspect. It appears that work was commencing for its overhaul when the Workshops were closed down and the machine is partially disassembled.									
Signific	Significance Matrix State Historical Themes:									
	Historical	Aesthetic	Social	Technology/ Research	Category	☐ Moveable Item ☐	Industrial Relic			
_	-			Potential		_	muustnai Kenc			
Rare					Themes	☐ 13 Transport☐ 15 Utilities				
Repres-						15 Othlities 16 Industry				
entative	×	×		×		☐ 18 Technology				
						20 Government Admi	nistration			
Stateme	ent of Sig	nificance			<u> </u>	<u> </u>				
The iten operation potential	n was an n for ove l for deve	integral pa r 40 years. loping an u	The ite Inderstar	m was producted and make make make make make make make make	ced in Aus engineerin	Vorkshops being assortralia and has research g practice. The item a high degree of structu	n and education and its operation			
Conserv	ation Po	olicy:								
The item	is to be	retained i	n its pre	sent location a	and be pre	eserved as part of the	air compressor			
collection	n to whicl	n it belongs	,		•	8.: 77' 21.				
The iter impleme	n is to ntation a	be preser nd mainten	ved by ance sch	being cleane ledules given l	d, service pelow.	d and maintained ac	cording to the			
Policy I	nplemen	tation:	-							
determin	Policy Implementation: It is essential that this machine be stripped by a qualified fitter and that its precise condition be determined. The item is to be greased and reassembled and covered with a suitable textile to prevent pollutants falling on the item.									
Mainten	ance Scl	nedule								
If the iter	If the item is left in this position it should be inspected by a qualified fitter every 12 months.									
				•						
Interpre	tation:									
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						•				
e*										
			÷							
						•				

Item Name: Thom	pson 9	0 degree V Twin 2 Stage Compressor			Item No.	217
		s Machine (Castlemain) Ltd Australia.	Machine No:	418	. Size:	22½ -
131/2 12". Speed: 3	33 Da	ate 8-4-52				
Associated I	tems:					
Individual						
Assemblage						
Collection		Air Compressor 214-217				
System						
Operational Groups	s 🗆					
D						

Description: This air compressor has a stand-alone motor with an attached starter motor. The starter motor is direct coupled to the main motor and the brushes of the main motor are open with a mesh cover. The large inter-cooler is vertical and is placed on the south side of the second cylinder. Air enters the primary cylinder through a 250mm pipe via the roof, passes to an air filter and then to the vertical No.1 cylinder. The whole machine is of massive cast-iron construction bolted together. There is the most impressive power panel at the end of the machine against the south wall. It contains a start switch for the pump, fan and the compressor. This machine, like all others, is fitted with an emergency stop.

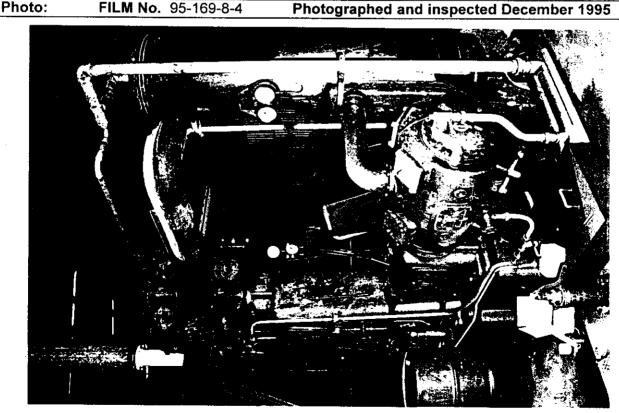
History: The compressor house supplied a high pressure air for the whole of the Eveleigh Workshops including the Carriage Workshops. Originally, there were four cooling towers mounted on the north side of the building, two of these have been removed and are believed to be down at the ACDEP Depot. The cooling towers at ACDEP would be suitable for connecting to this type of machinery. The coolers supplied cool water to reduce the temperature of the compressed air.

Function and Operation: The air compressors at Eveleigh tended to work continuously for eight hours a day pressing compressed air through a number of receivers throughout the site. In general, the Thompsons supplied air on demand. When the demand was reduced the electric motor still functioned but the machine was not under load.

Location: Air Compressor House adjacent to the Explorer Maintenance Workshop. (North of the new Erecting Shop and outside the Masterplan area.

The cabinet containing the transformers for this item is immediately to its south. These cabinets contained the usual array of circuit breakers under current control and feed the excitor, the motor and the small water pump which pushed the circulating water through the system.

Photographed and inspected December 1995



1996

Item Na	ame: Tho	mpson 90	Degree \	/ Twin 2-Stag	e Compres	ssor	Item No. 217
				n appears to l	be good ar	nd it is believed that, w	ith a service, the
machin	e would b	e operable	!.				ŧ
Cianific	ance Ma		··· ·	•	C4-4- 11:	4-1-1-76	
Signine	Historical	Aesthetic	Social	Technology/	l	storical Themes:	
		•		Research Potential	Category	☐ Moveable Item ☐	Industrial Relic
Rare					Themes	☐ 13 Transport	
Repres-						☐ 15 Utilities☐ 16 Industry	
entative	×	X		X		☐ 18 Technology	
						20 Government Adm	inistration
Statem	ent of Sig	Inificance			*		
						Vorkshops being asso	
						tralia and has researd	
						g practice. The item a a high degree of structi	
-	·		J				J
Conser	vation Po	olicy:			·		
		-	its nrese	nt location ar	nd he nre	served as part of the	air compressor
		n it belong		in location at	id be pie	sorrou do pare or are	
The ite	m is to	he nresei	wed by	heina cleane	d service	d and maintained ac	cording to the
				iedules given		u and maintained at	coloning to the
D-1'1		4 13	··	 			
Policy I	mplemen	itation:					
						fitt <mark>er and that</mark> its preci	
		e item is to efrom fallin	_		ssembled	and covered with a su	uitable textile to
provent	pondianto	i ii oiti taiii	ig on the	itorri.			
		à.					
Mainter	ance Scl	nedule '					
If the it-	المعامات المعا		اد الأرسمة			and the state of t	
months.		n this posi	uon it sho	oula be overha	auled by a	qualified fitter and insp	pectea every 12
				•			:
Interpre	tation:						

1996

				=		
Item Name: Ste	Item Name: Stephenson 7 Tonne Loco Crane 1083					
Name Plate: N	/A		·			
Associated	Items:					
Individual	\square	•				
Assemblage						
Collection						
System		•				
Operational Grou	ups 🗖	•				
Description: Se						
History: See O	ver					
						
Function and O			Location: In	n the Forecourt, between		
Like most small lo	co cranes, this	s one had jibbing and slewing	i	Innovation Centre and		
only and was not	equipped for h	noisting. The item to be lifted	Bay 1 of the V			
was simply slung t	rom one of the	hooks beneath the crane and	·			

Like most small loco cranes, this one had jibbing and slewing only and was not equipped for hoisting. The item to be lifted was simply slung from one of the hooks beneath the crane and lifted to the extent that the jib could be raised. This particular crane had three hooks, one which operated at a capacity of 3.5 tonnes, the second 5 tonnes and the third, which was closest to the engine itself, could lift 7 tonnes. However, the height by which the 7 tonne hook could be raised was severely restricted. The loco crane was also fitted with a steam turbine which provided current for an electro magnet to lift scrap iron and steel.

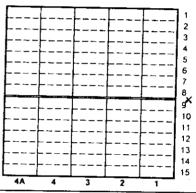
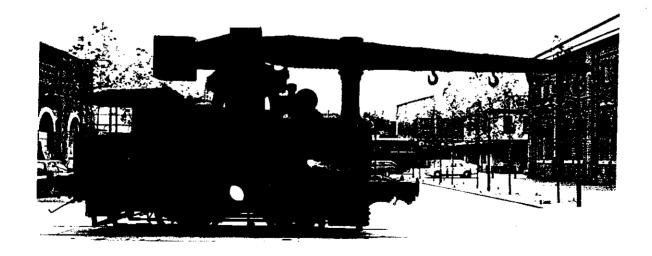


Photo: FILM No. 95-169-8-13 Photographed and inspected December 1995



_ ,			·	SHOPS WAC	SUINEKI	CONSERVATIO	1990
Item N	iame : Step	henson 7	Tonne Lo	oco Crane 108	33		Item No. 218
smoke opene is diffic gauge	mall locomorebox door and so the cocult to assess, are missing.	and the file not indition of second it appears in appears in appears in a second in a seco	rebox do the boiler opears to	or have been r, the smokebo	welded sox and the dition. Sor	shut. The smokeb stack can be deter ne fittings, such as	nknown as both the box door should be mined. The firebox water and pressure
missin safety These the tar	g from the valves are items have nk bottom, i nks would l	small eng missing. had wate s quite de	gine which The side In them Sep. Thes	ch powered th water tanks ap n for in excess se tanks could	e slewing opear to be of 40 year not be use	mechanism. The almost rusted throws and the rust in ped if the locomotive	ndition but parts are steam turbine and bugh in some areas. laces, especially on was to be restored. the locomotive was
Signif	icance Mat				State His	torical Themes:	
	Historical	Aesthetic	Social	Technology/ Research Potential	Category	☐ Moveable Item	☑ Industrial Relic
Rare	×				Themes	☑ 13 Transport ☐ 15 Utilities	
				,	l	LE 15 Utilities	

Discussion

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Repres-

entative

It is believed that this small locomotive crane 1083 is in good overall condition. An identical crane 1082 has been obtained by the Powerhouse Museum and it is possible that this is to undergo restoration. Both items are significant because they were the last steam locomotives imported prior to the demise of steam power on the New South Wales rail system. It is a very well known item amongst railway men, especially those who worked at Eveleigh and it is an indicator of the way in which the railway workshops were operated in the immediate post war period. Small engines of this nature are relatively easy to interpret and with interpretative material displayed close by, make an ideal educative item. Further, the crane must be regarded as an integral part of the railway workshops and, as such, has considerable significance.

X

X

☐ 16 Industry

☐ 18 Technology

☐ 20 Government Administration

Statement

The crane is a rare and representative example of a steam powered locomotive crane and has regional significance. The item is the last locomotive crane brought into New South Wales and is indicative of the work which steam was carried out in the workshops.

Conservation Policy:

The steam locomotive crane is to be preserved. No action must be taken which will reduce the possibility of restoration to operable condition being executed at a later date. All rust is to be removed by appropriate means. Remaining rust is to be converted and all bearings and cylinders are to be stripped, cleaned and greased.

Policy Implementation: See over.

Maintenance Schedule

The engine should be inspected for rust every 12 months and, where necessary, appropriate measures should be taken to inhibit rust or paint.

Description: The Locomotive Crane is a purpose-built crane and was one of the last two to be imported by the State Rail Authority. Like all locomotives it consists of a heavy chassis which supports the boiler, the cabin, the cylinders and the stack which is mounted on a special cowling. The chassis also supported, on very heavy steel brackets, a cylinder on which was mounted a turret, which in turn carried the crane jib. The crane jib itself was some 6 metres long with a rear extension of about 1.5 metres which supported the 3 tonne balance weight. The loco is an 0-4-0 and was constructed by Robert Stephenson and Hawthorne Ltd of the UK. It entered service in February 1950. The total weight of the item when in steam was about 40 tonnes.

The power pack consisted of two standard cylinders horizontally mounted which were 14 inches (350mm) diameter with a 20 inch (500mm) stroke. The heating surface for the boiler tubes was 557 square feet $(51m^2)$ in total while the fire box had a total heating surface of 54 square feet $(5m^2)$ with a grate area of 9.5 square feet.

When the locomotive was being moved, the crane jib rested on the heavy smoke stack. In this position the lower chord of the jib was horizontal. The jib itself was about 12 feet (3.8 metres) above rail height. The jib was raised and lowered by a steam or hydraulic ram, the piston for which was located in the centre of the turret. This piston was connected to a shaft which itself was direct coupled to a bracket attached to the after end of the jib. A pivot point was located about 600mm in front of the centre line of the shaft. The travel of the shaft appears to be about 500mm which means that the 7 tonne hook could be raised through a distance of about 1.2 metres. The 3.5 tonne hook could be raised to about twice that distance. Slewing was powered through a small twin cylinder steam engine mounted on a bracket at the front of the turret. This was coupled to a worm gear which operated a small, vertically mounted cog which was in constant mesh with a second gear wheel which was attached to the outer surface of the turret. It would appear that the slewing drive would have been extremely slow.

The cab of the loco crane is extremely small. The amount of coal which could be carried was given as 11cwt (.5 tonne). However, this has been disputed and the weight carried is thought to be less than 5cwt. The ability to carry large quantities of coal was not important as the engine could be frequently topped up at almost any point in the workshop. As with all other locomotives on the SRA, this one was operated by a driver who also had a crane ticket, plus the fireman.

The number of components which are original and bear the original number is very high for a steam locomotive. The number borne by most of the components is 7543, which is the builder's number for the original engine. This number is evident on much of the running gear. The number is also evident on the wheel boxes. It should also be noted that the boiler in this loco is X1067A, which means that this was the second new boiler constructed for crane locomotive 1067 which was relocated when it was overhauled into this locomotive.

History: The small 10 Class locomotive crane presently in the forecourt between the main workshops building and the National Innovations Centre, formerly the New Loco Shop, at Eveleigh was manufactured by Robert Stephenson and Hawthorne Ltd of Darlington and Newcastle-on-Tyne. It was classified as a 7 tonne loco crane and was designated a yard crane.

Basically there were two types of cranes used on the New South Wales rail system. The first was the 'accident crane' which was a mobile steam crane constructed on its own chassis and wheels, with its own dedicated boiler. The accident crane was pushed or towed to the site of the accident and was used to raise capsized locomotive or rolling stock, placed them back on the rails or onto flat cars. These cranes, some of which had a maximum lifting capacity of 120 tonne, were usually supplied with a vertical boiler and had slewing, jibbing and hoisting capabilities. The accident cranes were generally purpose-built, designed for specific loads and were distributed throughout the network. The first of these cranes was imported in 1886.

The second type of crane was the steam locomotive crane or yard crane as it was sometimes known. These were classified in 1924 into the X10 Class (miscellaneous stock) and were normally side tank locos with a limited coal supply held in extensions to the side water tanks. The purpose of the engine was to move around the yard to points where they were required where they could lift items such as kibble bins, place them on flat cars or simply lift items for relocating around the workshop. These loco cranes were particularly good at moving in tight areas and they could also tow or push a flat car around and lift and deposit items on them.

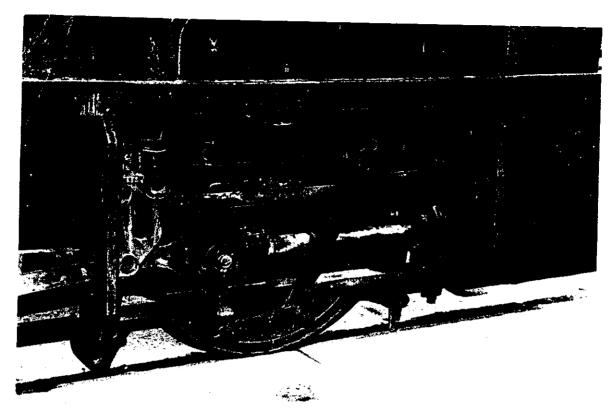
Unlike the accident cranes, which were normally fitted with stabilising bars, the loco crane relied on its distribution of weight to perform its task.

Policy Implementation:

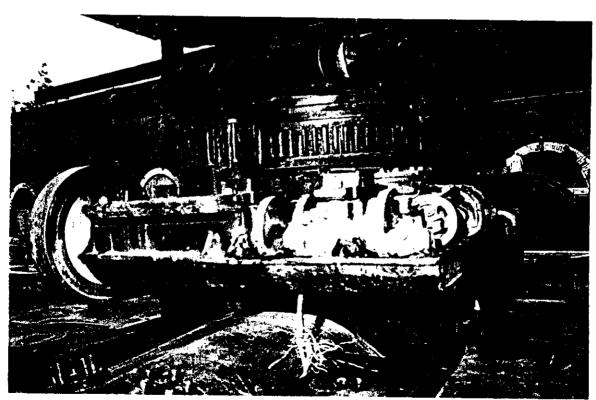
- 1. The steam locomotive crane is to be preserved and displayed.
- 2. A suitable cover is to be erected over the locomotive, which will protect it from the weather.
- 3. The crane may be removed temporarily from its present location for conservation work to be completed. The crane should be removed from the elements as soon as possible.
- 4. The crane should be fully inspected for rust and steps should be taken to inhibit rust on all internal and external surfaces by the use of a rust converter followed by protection with a heavy duty sealer or paint.
- 5. Side tanks. The tanks may be removed, cleaned internally and externally by abrasive blasting. The internal surface should then be protected by being sealed with a heavy duty sealer or with a two pot epoxy paint. The sealer will fill most of the small rust holes which appear in the side of the tank. Corrosion in the rear or coal section of the tank should be removed by abrasive blasting and the area coated internally with a two pot epoxy paint. No part of the fabric should be removed by cutting or welding. The surfaces between the tank and the loco proper should be cleaned by abrasive blasting and finished with a heavy duty sealant.
- 6. The boiler. The lagging sheet should be removed from both the front and rear sections of the boiler and the boiler shell itself should be cleaned using appropriate methods and then painted or sealed with a heavy duty sealant to prevent further corrosion.
 - The various holes for the valves, clack boxes and safety valves are to be plugged.
 The regulator should be greased.
 - The mud plate should be removed and lime sprayed into the boiler.
 - A candle or firelighter should be placed in the space and the mud plate replaced.
 This will remove all oxygen from the boiler and should stabilise the boiler internally.
 - The smoke box and fire box should be inspected and cleaned. The inside of the ash box and the smoke box should be converted and sealed to prevent further corrosion.
 - The plates which form the main frame of the locomotive should be abrasive blasted or converted and sealed with a heavy duty sealer.
 - Lagging to be replaced by 'brick bats'.

7. Other surfaces.

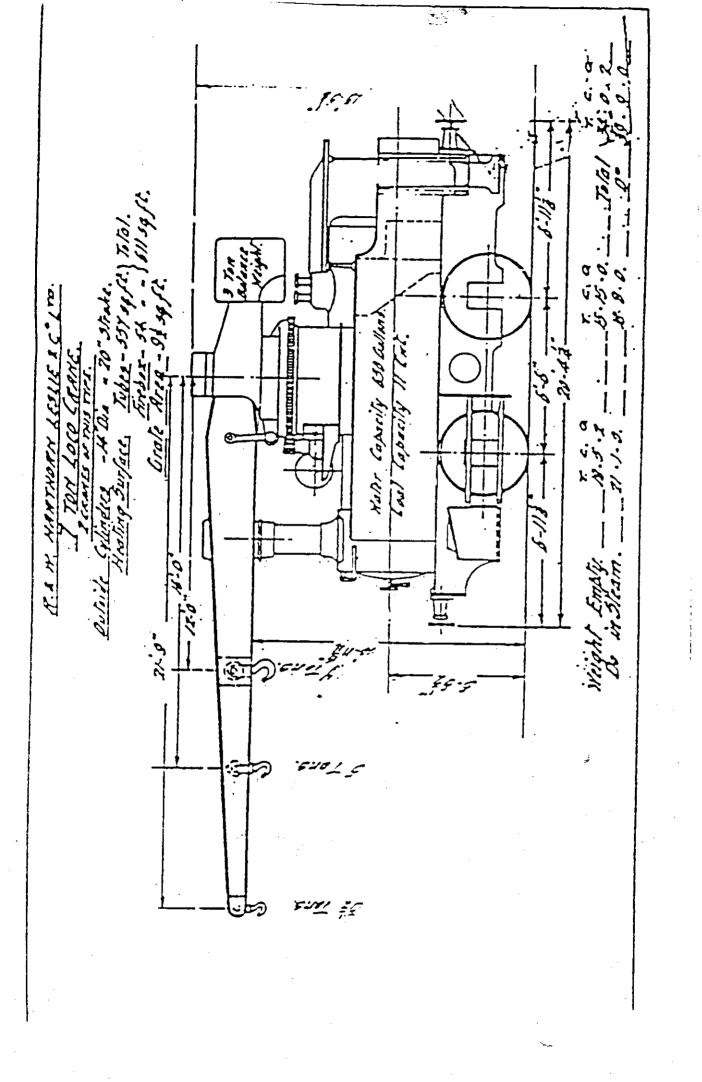
- The underside of the foot plate should be cleaned and sealed.
- The chain plate at the front of the locomotive should be abrasive blasted to remove any traces of rust. The whole of the area should then be sealed with a two pot epoxy paint.
- The tray beneath the smoke box should be cleaned by abrasive blasting and should be sealed with a two pot epoxy paint.
- Slewing motor should be stripped, re-greased and, where necessary, painted. All bright parts should be coated with polycrystalline wax after removal of corrosion. The drain pipe on the slewing motor should be repositioned so that water is drained away from the tray.
- 8. The jib. This should be spot cleaned by brushing and a converter placed on any rusted sections. These sections should then be primed and painted.
- 9. All bright surfaces, including the conrods and side rods, should be polished to remove corrosion and finished with a polycrystalline wax.
- 10. The stack should be appropriately sealed to prevent ingress of water.
- 11. The jib-activating cylinder should be cleaned and greased and the stuffing box repacked with the shaft being cleaned and polished. The jib bearing should be cleaned and greased.
- 12. The running gear, including the conrods and side rods, should be cleaned. The cylinder should be opened, cleaned and greased to allow easy movement and facilitate relocation.



Steam crane cylinder, connecting rod, cross lead and side rods.



Slewing motor and turret of jib.



Item Name: Electric	: Ove	erhead Travelling Crane	44
Name Plate: N/A		Traveling Grane	Item No.219A-H
Associated Items:			
Individual			
Assemblage			
Collection	Ø	EOHTS 196, 197, 202, 207, 219 (A-H) 8 cranes	
System			
Operational Groups			
Descriptions All Co			

Description: All of the cranes have twin crane beams made from box, plate or lattice girders. Each has a small carriage which runs on the upper surface of the beams and supports the transverse motion, the cable drum and the cable drum/motor. Longitudinal movement of the crane is via the longitidunal motor which is generally mounted on a bracket attached to the leading crane beam. Each crane has a small cabin, slung below the crane beams. The cabin contains a fuse box and three controllers, one for each of the longitudinal travel, transverse travel and hoist mechanisms. Power for each crane is via six cables which run on insulators along the western crane beam of each bay. Most of these power cables appear to be intact, but they have all been disconnected from the electricity power supply.

History: There are electric cranes in Bays 6, 8, 9, 10, 11, 14 and 15. Those in Bays 6, 8, 9 South, 10 and 15, were originally powered by a steam engine mounted on the south wall of the workshops and are all by Craven Bros of Manchester. Between 1901 and 1907 most of these cranes were converted to electric power. Cranes in Bays 6, 9 North, 11 and 13 were electrically powered when installed and are by Craven Bros, Vaughan & Son, Babcock & Wilcox. All the Craven cranes have plate or box-girder beams and all appear to be manufactured in 1884 or 1886. The other cranes have lattice girder beams and all appear to have been manufactured prior to 1914. No information is available on the conversion of steam driven cranes to electric power.

Function and Operation: The cranes were driven from the drivers cabin and frequently each driver had an assistant who carried out any necessary work on the crane beam. This included attending to the motors and switching the gears which could not be controlled from the cabin. Each crane could run the length of the bay. Bay 9 had two cranes to assist with the high frequency movement of wheel bogeys. The driver used the three motor controllers, each of which had five forward and five reverse speeds, to place the slung load in any position on the bay floor. Loads were slung and then moved from one location to another while directly over a dedicated path, usually free of workers.

Location:

Bay 6 North

Bay 8 North

Bay 9 North

Bay 9 South

Bay 10 North

Bay 11 South

Bay 13 North

Bay 15 North

Photo: FILM No. Photographed and inspected December 1995



GODDEN MACKAY PTY LTD, 78 GEORGE ST, REDFERN NSW 2016 PH: (02) 319 4811

Item Na	ame: Elec	tric Overh	ead Trav	elling Cranes			Item No.219a-h	
Condit	ion: All ap	opear to be	e in opera	ative condition	Some ha	ive superficial rust.		
Signific	cance Mat	trix Aesthetic	Social	Technology/	State Historical Themes:			
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	4 00.a.	Research Potential	Category	Moveable Item	☑ Industrial Relic	
Rare	X			X	Themes	☑ 13 Transport		
Repres-	v			•		区 15 Utilities 区 16 Industry		
entative	×	×	×	X		≥ 18 Technology		
						20 Government A	dministration	
Statem	ent of Sig	nificance		··········				
The cranes were an integral part of the Eveleigh Locomotive Workshops being associated with their operation, in some cases, for almost 100 years. The items are an integral part of the Workshops operations. The cranes are impressive in size and exhibit a unity in design and detail which is now rare. All cranes have research and education potential for developing an understanding of early engineering practice and each crane is an easily interpreted item. The cranes all exhibit a high degree of structural integity and all will yield information on the nature of past work practices.								
Conser	vation Po	licy:						
Each item is to be retained in its present bay and to be conserved as part of the Eveleigh Locomotive Crane Collection to which it belongs. Each crane is to be preserved by being cleaned and serviced according to the maintenance schedule given below. The electric power cables above each of the western crane rail beams are to be preserved.								
Policy Implementation:								
All external surfaces are to be cleaned and degreased using appropriate methods. All superficial rust is to be removed or converted. All external surfaces are then to be treated with an appropriate sealant such as Shell ENSIS Fluid or polycrystalline wax. The moving parts of the electric motors are to be covered to prevent ingress of dust. Exposed gear trains are to be covered to prevent ingress of dust.								
Each crane may be re-positioned in the bay in which it is located.								
Maintenance Schedule								
All external surfaces are to be checked for rust, every 12 months. Where necessary, surfaces are to be treated as recommended in the implementation section of this report.								
Interpretation:								