GODDEN MACKAY

## **BAY 2 NORTH**

Item Name: Rack of Moulds a	nd Templates for Hammer	Shop	Item No. 2	26
Name Plate: N/A	-			
Associated Items:				
Assemblages 🗹	Steam Hammer (1) 26, 2	7 28 34 36 37		
Collection	0.000.000.000.000.000.000	7, 20, 04, 30, 37		
Systems Ø				
Operational Groups	Steam Hammer Shop	Il items in Bay 2N except 3	29	
Description: Steel rack which				
appears to be grossly over-des been stored here in a random n	ee steel sheet shelves. T signed. The series of dye nanner when the workshop	he item has two braces on s, moulds and templates a s were to be closed down.	on the side appear to h	ano ave
<b>History:</b> The history of the ite templates which it holds are of v	em is unknown but it appea varying ages and varying co	ars to be of some age. T onditions.	he moulds a	апс
Function and Operation: The	e rack was purpose-built to	Location: Bay 2 North	3 West	
hold a series of moulds.		<u>[</u>	ŢŢ .	
			2	
			3 4	
			5	
			7	
			8	
			9 10	
			11	
			13	
			14	
	· .	4A 4 3 2	1 13	
Photo: FILM No. 95-169	9-3-27 Photographed	and inspected Decemb	er 1995	
		the second se		

Item Name: Rack of Moulds & Templates for Hammer Shop

## **Condition:**

The item is in good/excellent operating condition.

The external surface of the item has patches of superficial rust and bare metal.

Significance Matrix					State Historical Themes:		
	Historical	Aesthetic	Social	Technology/ Research Potential	Category	A Moveable Item	Industrial Relic
Rare					Themes	13 Transport 15 Utilities	
Repres- entative	Ø			Ø		16 Industry	
						<ul> <li>18 Technology</li> <li>20 Government J</li> </ul>	Administration

**Statement of Significance:** The item was an integral part of the Eveleigh Locomotive Workshops being associated with their operation for over 20 years. The item is an integral part of the steam hammer and oliver systems. The item represents former manufacturing technologies now rarely evident in operating workshops. 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.

## **Conservation Policy:**

The item is to be retained and be preserved as part of the steam hammer assemblage. It may be repositioned in same bay.

## Policy Implementation:

All items which are not being used in the present operations in Bays 1 & 2 South Should have 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.

#### **Maintenance Schedule**

Inspect all external surfaces for rust every 12 months. Where necessary, coat as recommended in the implementation section.

#### Interpretation:

1996

Item Name: The Bla	acksmiths F	orges including coke bins a	and water tanks	Item No. 27A-H
Name Plate:				
Associated Items:				
Individual				
Assemblages		(Steam Hammer 8CWT1, 26, 23	7AB, 28, 34KJ, 36DF, 37ABC)	
Collection	D	C3 Forges		
Systems				
Operational Groups	Image: Second se	Steam Hammer Shop. All items	in Bay 2N except 38.	
Description: 8 of the	original 20 ca	st iron blacksmith forges or furnad	ces remain in Bay 2 North. Th	e Forges consist of
a cast-non stage of frame	e which holds	the cast-fron fire pan. The rear le	eas extend about 800mm bevo	and the fire ease and
noid the back plate and	support the c	ast from hood. The cast from tuve	eres which are of the side-be	ating design are all
water cooled. Each torge	e is naturally v	vented through a vertical stack wi	hich nasses through the roof o	of the workshop In
bigh volume low pressure	nave been ac	Ided to the forges to contain the h	eat. The forges are all connect	ted to the sub-floor
History: Originally the	forges were	ch take air from the Roots blower	s located at the south end of B	ay 1 to the forges.
height of about 3-4 metre	s shove the	all connected to a low pitched she ground. To this flue was supplied	et metal flue which ran the lei	ngth of the bay at a
bay. It is not known who	ere the force	s were made but it is believed th	two stacks which passed through the passed through the stacks which passed in the	bugh the roof of the
which was originally locat	ed outside Ba	V 4.	at they were produced in the	e Eveleign Foundry
		forges were all used for heating	Location: Bay 2 North 3-	7
relatively small items to	red or white I	heat for forging by hand by the	Location. Bay 2 North 3-	
blacksmiths or beneath th	ne four steam	hammers still located in Bay 2.		1
The forges all used coa	al or coke as	s fuel and the air supply was	┨ <b>╴╴╴┼╴╌╌┼╌╌╌┧╸╸</b>	<b>x</b> <sup>2</sup> <sub>3</sub>
controlled by a lever at the	e rear of the f	orge.		¥4
				×5 6
			│ <b>┣··-</b> ┝╺··-├/ <sup>■</sup>	<b>6</b> 7
				8
				9
				11
				12
				15
			4A 4 3 2	1
Photo: FILM I	<b>lo.</b> 95-169	-3-28 Photographed	and inspected Decemb	er 1995
		0 1 1		
	26			8
		and the second		
	15	Se de la construction de la constru	11.2.2.	
	123			
				1
	1			
Landa Land	i de la			
		j."		7
	<b>SET</b>			
				•
3			8 . N	
است د التي ا				
			A PART AND	
			y the second second	
1				
	A			
	2			23

1996

## Item Name: Blacksmith's Forges

27A-H

#### Condition:

In general, the item appears to be in operable condition providing power sources are connected and the items are cleaned, serviced and tested.

#### The item exhibits heavy rust in places.

Signifi	Significance Matrix					State Historical Themes:		
	Historical	Aesthetic	Social	Technology/ Research Potential	Category	C Moveable Item	Industrial Relic	
Rare	X	X		X	Themes	13 Transport 15 Utilities		
Repres- entative	X	ū		X		<ul> <li>16 Industry</li> <li>18 Technology</li> <li>20 Government</li> </ul>	Administration	

#### **Statement of Significance**

The items were an integral part of the Eveleigh Locomotive Workshops being associated with their operation for over 100 years.

The items are an integral part of the steam hammer assemblage.

#### **Conservation Policy:**

The items are to be retained in their present location and be preserved as part of the steam hammer assemblage and furnace collection to which they belong.

## **Policy Implementation:**

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. All pipes are to be disconnected, cleaned, dried and treated with rust inhibitor. They may then be reconnected. All heavily rusted surfaces should be cleaned with abrasive blasting using a limestone or similar abrasive or steel brushing. Remnant rust should be treated with an inhibitor and finally coated with an appropriate sealant such as Shell ENSIS fluid or polycrystalline wax.

Conserve in situ.

**Maintenance Schedule** 

Interpretation:

Item Name: Davis a	nd Primrose Steam Hammer 1		Item No. 28
Name Plate:		<u> </u>	
Associated Items:			
Individual			
Assemblages	Steam Hammer 800CWT	1 27AB, 28, 34KJ, 36DF.	37ABC
Collection	Image: Steam Hammer 28, 29, 3	31, 32, 54, 57	
Systems	☑ Steam 1-4, 28, 29, 31, 32		
<b>Operational Groups</b>	Steam Hammer Shop. Al	l items in Bay 2N except 3	38.
Description: This v	ertical, single frame steam hammer	delivers a blow of 8.5cw	t (430kg). The
nammer was powere	d by steam via an overhead steam I	ine from the boiler heade	ers at the south
end of Bay 2. The ha	immer consists of a cast-iron steel fra	me, virtually in the form of	faC.
History: The steam	hammer was installed in this location	in 1908 (The 1912 plan	of the Eveleigh
Railway Workshops S	SRAO EL W29) indicates a steam han	mer in this precise location	on.
Function and Opera	tion: The steam hammer was used	Location: Bay 2 North	3-4E
for a variety of items	s produced for the railways. These	[	<b>1</b> 1
the production of any	ning out of small axles and shafts to		2
ane production of sm	all items which were drop-forged in	<b>-</b> + <b>*</b>	4
spring swage sets.			5
skilled exercises ever is	moved with a pumping action and a		7
and its ranidity. As the	change both the length of the blow		8
and its rapidity. As the	e operation of the lever is increased	┃	9 10
in speed, the speed of the length of strategies.	of the blows delivered is increased.		11
the leven is manual.	s governed by the distance by which		12 13
the lever is moved.	The blow delivered depends both on		14
the steam being adm	nitted to the steam cylinder and the	4A 4 3 2	15
	od, the ram and the ram dye. Io. 95-169-3-29 Photographed		
	Photographed	and inspected Decemb	er 1995
,			
, i construction of the second s			
		- · · ·	
		The second se	
G A A	A DECEMBER OF A	er l	
and the second se			
		State of the second	
1. March		the second se	
		1 · · · · ·	

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

## Item Name: Davis & Primrose Steam Hammer 1

Item No. 28

### **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.

Signifi	cance Mat	trix			State Historical Themes:			
	Historical	Aesthetic	Social	Technology/ Research Potential	Category	Moveable Item	Industrial Relic	
Rare	X	×		X	Themes	13 Transport		
						15 Utilities		
Repres-		_				16 Industry		
entative	X			×		18 Technology		
Specifically manufactured for the NSW Government Railways.						20 Government	Administration	

#### 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 large steam system. The item is a large, rare, industrial piece exhibiting massive cast-iron construction specifically manufactured for the NSW government railways. 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 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 retained in its present location and be preserved as part of the 8 CWT steam hammer assemblage, the steam hammer collection and the steam system to which it belongs.

#### **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. 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. All pipes are to be disconnected, cleaned, dried and treated with rust inhibitor. They may then be reconnected. All operating surfaces exhibiting a normally bright finish should be suitably polished and coated with an appropriate sealant such as Shell ENSIS fluid or a polycrystalline wax.

Conserve in situ.

## Maintenance Schedule

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.

## Interpretation:

Item Name: Davis	and Primro	se Steam Hammer 2		Item No. 29
Name Plate:				
Associated Items		-N	· · · · · · · · · · · · · · · · · · ·	
Individual		•••••••		
Assemblages		Steam Hammer 8CWT2, 2	26, 27DE, 29, 30, 31A, 34	GH, 36G
Collection		Steam Hammer 28, 29, 3	1, 32, 54, 57	
Systems Operational Groups		Steam 1-4, 28, 29, 31, 32	2, 54, 57, 188-191 Liteme in Dev 2N averat (	
		Steam Hammer Shop. All	Thems in Bay 2N except 3	
hammer was powe	red by stea	ingle frame steam hammer am via an overhead steam li	delivers a blow of 8.5cm	t (430kg). The
end of Bay 2. The	hammer co	nsists of a cast-iron steel frai	me virtually in the form of	ans at the south
History: The stear	n hammer	was installed in this location	in 1908. (The 1912 plan	of the Eveleigh
Railway workshops	SRAU EL	W29) indicates a steam ham	mer in this precise location	on.
Function and Ope	ration: Th	e steam hammer was used	Location: Bay 2 North	6F
for a variety of iter	ns produce	d for the railways. These		
varied from the rou	ghing out c	of small axles and shafts to		
the production of s	mall items	which were drop-forged in	╺──┥╾╌┤╴╴╴┥╴	3
spring swage sets. The operating lever	is moved y	vith a pumping action and a		5
skilled operator car	change b	oth the length of the blow		7
and its rapidity. As	the operati	on of the lever is increased		8 9
in speed, the speed	d of the blo	ows delivered is increased.	·	10
The length of stroke	e is governe	ed by the distance in which		12
the lever is moved.	The blow	delivered depends both on		13 14
the steam being ac	mitted to t	he steam cylinder and the	4A 4 3 2	15
weight of the piston Photo: FILM	rod, the rar No. 95-16			
	110. 30-10	enotographed	and inspected December	er 1995
			······································	
				e -
· ,				
1.386				
			Ň.	
			and a second s	
			and the second s	en la construcción de la constru
			Ê,	
			a	N.
		5	No	
		t in the second se		

## Item Name: Davis & Primrose Hammer 8.5CWT

Item	No.	29

### 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.

Signifi	cance Ma	trix			State Historical Themes:			
	Historical	Aesthetic	Social	Technology/ Research Potential	Category	Moveable Item	Industrial Relic	
Rare	×	×		X	Themes	13 Transport		
						15 Utilities		
Repres-						16 Industry		
entative	X			x		18 Technology		
Specific	cally manu	factured for	or the NS	N				
Govern	ment Rail	ways.			-	20 Government /	Administration	

## **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 large steam system. The item is a large, rare, industrial piece exhibiting massive cast-iron construction specifically manufactured for the NSW government railways. 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 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 retained in its present location and be preserved as part of the 20CWT steam hammer assemblage, the steam hammer collection and the steam system to which it belongs.

## **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. 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. All pipes are to be disconnected, cleaned, dried and treated with rust inhibitor. They may then be reconnected. All operating surfaces exhibiting a normally bright finish should be suitably polished and coated with an appropriate sealant such as Shell ENSIS fluid or a polycrystalline wax.

Conserve in situ.

## **Maintenance Schedule**

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.

Interpretation:

1996	
------	--

Item Name: Wall Crane for Item 29, (Steam Hammer 2) Item No. 30						
Name Plate:						
Associated Items:						
Individual						
Assemblages	E E	Steam Hammer 8CWT2, 2	26 27DE 29 30 31A 34	IGH 36G		
Collection	M M	Jib Cranes 30, 45, 46, 50		•		
Systems				00, 100		
Operational Groups	ମ ମ	Steam Hammer Shop. Af	l items in Bay 2N except :	38		
		ne was manufactured at th	• •			
jib made from a doub one of the cast iron of the upper surface of t threaded rod, fitted w	le sided ra columns in he jib and ith a hand hich a set o	il and a rod of steel for the the Workshop. It is equip contains a threaded bar att le, passes through the bar of tongs for gripping hot wo	main brace. The crane is pped with a small carriage ached to the carriage by which facilitates the raising	s stayed against e which rolls on a wish-bone. A ng and lowering		
History: It is believe steam hammer.	ed that the	jib-crane was mounted in	workshops and tempora	nously with the		
Function and Opera	tion: Th	e radius of the crane will	Location: Bay 2 North	6-7F		
		all forge and the steam				
		sling usually in the form of		2		
		ley on the lower bracket of		3		
		ssed through the chain,		5		
	•	s and the jib-crane is then		<b>X</b>		
		progress to the steam		8		
hammer.				9 10		
				12 13		
				14		
				15		
				• • • • • • • • • • • • • • • • • • •		
Photo: FILM N	<b>lo.</b> 95-169	-3-31 Photographed	and inspected Decemb	er 1995		

item na	me: Wail (	Frane to	r No.29				Item No. 30
Conditio					<u> </u>	·	
The item	is in good	structur	al repair a	and has no ob	vious sign	s of rust.	
Significa	ance Matri	x			State His	storical Themes:	
		Aesthetic	Social	Technology/ Research Potential	Category	Moveable Item	Industrial Relic
Rare					Themes	13 Transport	
Repres-						15 Utilities	
entative	x			x		16 Industry	
	_	—	—			□ 18 Technology	
						20 Government A	dministration omotive Workshops
exhibits a	a high degr	ee of str	uctural in	tegrity.	·		fabric. The item
Conserv	ation Poli	cy:		, _ , _ <u> </u>			
The item	n is to reta	ined in	its prese	nt location a	nd he nree	served as nart of t	he steam hammer
				which it belong			ne steam nammer
	-						
Policy In	nplementa	tion:					
rust is to	be remove	d or trea	ated. All	ned and degre external surfa stalline wax.	eased using ces are to	g appropriate metho be treated with an a	ods. All superficial appropriate sealant
Conserve	e in situ.						
Maintena	ance Sche	dule				. <u>.</u>	
Inspect fo	or physical	damage	and dete	erioration ever	y 12 montl	ns and implement re	pair as necessary.
	ll autamat .	surfaces	for rust e	everv 5 vears.	Where ne	coscon/ troat as ro	
Inspect a implemer	ntation sect	tion.		···· <b>·</b> ····		cessary, treat as re	commended in the
Inspect a implemer	ntation sect	tion.		· · · · <b>,</b> · · · ·		cessary, ireal as re	commended in the
nspect a mplemer	ntation sec	tion.				cessary, treat as re	commended in the
mplemer	ntation sect	lion.		· · · · · · · · · · · · · · · · · · ·			commended in the
mplemer	ntation sect	lion.					commended in the
mplemer	ntation sect	ion.		· · · · · · · · · · · · · · · · · · ·	, -		commended in the
Inspect a implemer Interpret	ntation sect	lion.		· · · ·			commended in the
implemer	ntation sect	ion.		· · · · · · · · · · · · · · · · · · ·	<u></u>		commended in the
mplemer	ntation sect	ion.	-	· · · ·			commended in the
implemer	ntation sect	lion.		· · · · · · · · · · · · · · · · · · ·			commended in the

1996

Item Name: Davis	and Primr	ose Steam Hammer 3		Item No. 31
Name Plate:				
Associated Items:				
Individual				
Assemblages	Ø	Steam Hammer 8CWT3	27DE, 29, 30, 31A, 34GH	, 36G
Collection		Steam Hammer 28, 29, 3	1, 32, 54, 57	
Systems	$\square$	Steam 1-4, 28, 29, 31, 32	., <b>54, 57, 188-19</b> 1	
Operational Groups		Steam Hammer Shop. All	items in Bay 2N except 3	38.
Description: This	vertical, s	single frame steam hammer	delivers a blow of 8.5cw	t (430kg). The
nammer was power	rea by ste	am via an overhead steam li	ine from the hoiler heads	are at the couth
end of Bay 2. The I	hammer c	onsists of a cast-iron steel fram	me, virtually in the form of	faC.
History: The stean	n hammer	was installed in this location	in 1904 (The 1912 plan	of the Evelsian
Railway Workshops	SRAO EL	W29) indicates a steam ham	mer in this precise location	or the Eveleign
		he steam hammer was used		
for a variety of iten	ns produc	ed for the railways. These	Location: Bay 2 North	VVO
varied from the rou	ahina out	of small axles and shafts to		1
the production of e	grinny out mall items	which were drop-forged in		23
spring swage sets.		s which were arop-forged in		
	is moved	with a pumping action and a		
skilled operator can		with a pumping action and a		7
and its rapidity. As	the energy	both the length of the blow		8
in speed the speed	die opera	tion of the lever is increased		10
The length of stroke		lows delivered is increased.		11 12
the lever is moved	The blow	ned by the distance in which		13
the steep heins ad		delivered depends both on		14
weight of the mister		the steam cylinder and the	4A 4 3 2	1 15
weight of the piston	rod, the ra		<u> </u>	
Photo: FILM	No. 95-1	69-3-32 Photographed	and inspected December	er 1995
	. A			
	18 -			
	ALS AL			
		· · · · · · · · · · · · · · · · · · ·		
	¥			
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ingen og en staten i som en som e Som en som en			
No. 1				
	·		/ *	
			A CARA	
				i i i i i i i i i i i i i i i i i i i
	i in the		, T	
	A Street			
	1. 1. The 'A			
		a the second sec		
	N. Start			

Item Name: Davis & Primrose Steam Hammer 3

## **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.

Signific	ance Mat	rix			State Historical Themes:		
	Historical	Aesthetic	Social	Technology/ Research Potential	Category	Moveable Item	Industrial Relic
Rare	X	x		×	Themes	13 Transport	
						15 Utilities	
Repres-						16 Industry	
entative				×		18 Technology	
Specifical Railways.	ly manufa	ctured for	the NSW	Government		20 Government A	dministration

## **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 large steam system. The item is a large, rare, industrial piece exhibiting massive cast-iron construction specifically manufactured for the NSW government railways. 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 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 retained in its present location and be preserved as part of the 8CWT2 steam hammer assemblage, the steam hammer collection and the steam system to which it belongs.

## 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. 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. All pipes are to be disconnected, cleaned, dried and treated with rust inhibitor. They may then be reconnected. All operating surfaces exhibiting a normally bright finish should be suitably polished and coated with an appropriate sealant such as Shell ENSIS fluid or a polycrystalline wax.

Conserve in situ.

## **Maintenance Schedule**

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.

Interpretation:

## E

Associated Items: Individual Assemblages Steam Hammer 8cwt4 32, 34BCD, 36E Collection Steam Hammer 28, 29, 31, 32, 54, 57 Systems Steam 1-4, 28, 29, 31, 32, 54, 57 Systems Steam Hammer Shop. All items in Bay 2N except 38. Description: This vertical, single frame steam hammer delivers a blow of 8.5cwt (430kg). hammer was powered by steam via an overhead steam line from the boiler headers at the subort of Bay 2. The hammer consists of a cast-iron steel frame, virtually in the form of a C. History: The steam hammer was installed in this location in 1904. (The 1912 plan of the Evel Railway Workshops SRAO EL W29) indicates a steam hammer in this precise location. Function and Operation: The steam hammer was used for a variety of items produced for the railways. These varied from the roughing out of small axles and shafts to the production of small items which were drop-forged in spring swage sets. The operating lever is moved with a pumping action and a skilled operator can change both the length of the blow and its rapidity. As the operation of the lever is increased. The length of stroke is governed by the distance in which he lever is moved. The blow delivered depends both on he steam being admitted to the steam cylinder and the veight of the piston rod, the ram and the ram dye.			WORKSHOPS MACHINER	Y CONSERVATION	199	96
Associated Items: Individual Assemblages Steam Hammer 8cwt4 32, 34BCD, 36E Collection Steam Hammer 28, 29, 31, 32, 54, 57 Systems Steam 1-4, 28, 29, 31, 32, 54, 57, 188-191 Operational Groups Description: This vertical, single frame steam hammer delivers a blow of 8.5cwt (430kg). nammer was powered by steam via an overhead steam line from the boiler headers at the subort of Bay 2. The hammer consists of a cast-iron steel frame, virtually in the form of a C. History: The steam hammer was installed in this location in 1904. (The 1912 plan of the Evel Railway Workshops SRAO EL W29) indicates a steam hammer in this precise location. Function and Operation: The steam hammer was used for a variety of items produced for the railways. These raried from the roughing out of small axles and shafts to he production of small items which were drop-forged in skilled operator can change both the length of the blow and its rapidity. As the operation of the lever is increased. The length of stroke is governed by the distance in which he lever is moved. The blow delivered depends both on he steam being admitted to the steam cylinder and the veight of the piston rod, the ram and the ram dye.	Item Name: Davis a	and Primr	ose Steam Hammer 4		Item No.	32
AssemblagesImage: Steam Hammer 8cwt4 32, 34BCD, 36ECollectionImage: Steam Hammer 28, 29, 31, 32, 54, 57SystemsImage: Steam 1-4, 28, 29, 31, 32, 54, 57Operational GroupsImage: Steam Hammer Shop. All items in Bay 2N except 38.Description:This vertical, single frame steam hammer delivers a blow of 8.5cwt (430kg).hammer was powered by steam via an overhead steam line from the boiler headers at the steam of Bay 2.hammer was powered by steam via an overhead steam line from the boiler headers at the steam of Bay 2.hammer was powered by steam via an overhead steam line from the boiler headers at the steam of Bay 2.History:The steam hammer was installed in this location in 1904. (The 1912 plan of the EvelRailway Workshops SRAO EL W29) indicates a steam hammer in this precise location.Function and Operation:The steam hammer was used for a variety of items produced for the railways. These varied from the roughing out of small axles and shafts to the production of small items which were drop-forged in spring swage sets.The operating lever is moved with a pumping action and a skilled operator can change both the length of the blows delivered is increased in speed, the speed of the blows delivered is increased. The length of stroke is governed by the distance in which he lever is moved. The blow delivered depends both on he steam being admitted to the steam cylinder and the weight of the piston rod, the ram and the ram dye.	Name Plate:				<u> </u>	
Assemblages Steam Hammer 8cwt4 32, 34BCD, 36E Collection Steam Hammer 28, 29, 31, 32, 54, 57 Systems Steam 1-4, 28, 29, 31, 32, 54, 57, 188-191 Derational Groups Steam Hammer Shop. All items in Bay 2N except 38. Description: This vertical, single frame steam hammer delivers a blow of 8.5cwt (430kg). hammer was powered by steam via an overhead steam line from the boiler headers at the second of Bay 2. The hammer consists of a cast-iron steel frame, virtually in the form of a C. History: The steam hammer was installed in this location in 1904. (The 1912 plan of the Evel Railway Workshops SRAO EL W29) indicates a steam hammer in this precise location. Function and Operation: The steam hammer was used for a variety of items produced for the railways. These raried from the roughing out of small axles and shafts to he production of small items which were drop-forged in pring swage sets. The operating lever is moved with a pumping action and a killed operator can change both the length of the blows delivered is increased. The length of stroke is governed by the distance in which he lever is moved. The blow delivered depends both on he steam being admitted to the steam cylinder and the veight of the piston rod, the ram and the ram dye.	Associated Items:		<u> </u>			
Collection $\begin{tabular}{ c c c c c } \hline Collection \begin{tabular}{ c c c c } \hline Collection & \hline C & Steam Hammer 28, 29, 31, 32, 54, 57 & Steam 1-4, 28, 29, 31, 32, 54, 57 & Steam 1-4, 28, 29, 31, 32, 54, 57 & Steam 1-4, 28, 29, 31, 32, 54, 57 & Steam 1-4, 28, 29, 31, 32, 54, 57 & Steam 1-4, 28, 29, 31, 32, 54, 57 & Its - Steam 1-4, 28, 20, 31, 32, 54, 57 & Its - Steam 1-4, 28, 20, 31, 32, 54, 57 & Its - Steam 1-4, 28, 20, 31, 32, 54, 57 & Its - Steam 1-4, 28, 20, 31, 32, 54, 57 & Its - Steam 1-4, 28, 20, 31, 32, 54, 57 & Its - Steam 1-4, 28, 20, 31, 32, 54, 57 & Its - Steam 1-4, 28, 20, 31, 32, 54, 57 & Its - Steam 1-4, 28, 20, 31, 32, 54, 57 & Its - Steam 1-4, 28, 20, 31, 32, 54, 57 & Its - Steam 1-4, 28, 20, 31, 32, 54, 57 & Its - Steam 1-4, 28, 20, 31, 32, 54, 57 & Its - Steam 1-4, 28, 20, 31, 32, 54, 57 & Its - Steam 1-4, 28, 20, 31, 31, 31, 31, 31, 31, 31, 31, 31, 31$	ndividual					
Systems	Assemblages	M	Steam Hammer 8cwt4 32	, 34BCD, 36E		
Operational Groups       Steam Hammer Shop. All items in Bay 2N except 38.         Description: This vertical, single frame steam hammer delivers a blow of 8.5cwt (430kg).         nammer was powered by steam via an overhead steam line from the boiler headers at the steam of Bay 2. The hammer consists of a cast-iron steel frame, virtually in the form of a C.         History: The steam hammer was installed in this location in 1904. (The 1912 plan of the Evelow Railway Workshops SRAO EL W29) indicates a steam hammer in this precise location.         Function and Operation: The steam hammer was used or a variety of items produced for the railways. These varied from the roughing out of small axles and shafts to he production of small items which were drop-forged in spring swage sets.       Location: Bay 2 North 3-4W         The operating lever is moved with a pumping action and a skilled operator can change both the length of the blow and its rapidity. As the operation of the lever is increased. The length of stroke is governed by the distance in which he lever is moved. The blow delivered depends both on he steam being admitted to the steam cylinder and the veight of the piston rod, the ram and the ram dye.       44       4       3       1	Collection	M	Steam Hammer 28, 29, 3	1, 32, 54, 57		
<b>Description:</b> This vertical, single frame steam hammer delivers a blow of 8.5cwt (430kg). hammer was powered by steam via an overhead steam line from the boiler headers at the second of Bay 2. The hammer consists of a cast-iron steel frame, virtually in the form of a C. <b>History:</b> The steam hammer was installed in this location in 1904. (The 1912 plan of the Evel Railway Workshops SRAO EL W29) indicates a steam hammer in this precise location. <b>Function and Operation:</b> The steam hammer was used for a variety of items produced for the railways. These varied from the roughing out of small axles and shafts to he production of small items which were drop-forged in spring swage sets. The operating lever is moved with a pumping action and a skilled operator can change both the length of the blow and its rapidity. As the operation of the lever is increased. The length of stroke is governed by the distance in which he lever is moved. The blow delivered depends both on he steam being admitted to the steam cylinder and the veight of the piston rod, the ram and the ram dye.	Systems	$\mathbf{N}$				
nammer was powered by steam via an overhead steam line from the boiler headers at the set and of Bay 2. The hammer consists of a cast-iron steel frame, virtually in the form of a C. <b>History:</b> The steam hammer was installed in this location in 1904. (The 1912 plan of the Evelo Railway Workshops SRAO EL W29) indicates a steam hammer in this precise location. <b>Function and Operation:</b> The steam hammer was used for a variety of items produced for the railways. These varied from the roughing out of small axles and shafts to the production of small items which were drop-forged in spring swage sets. The operating lever is moved with a pumping action and a skilled operator can change both the length of the blow and its rapidity. As the operation of the lever is increased in speed, the speed of the blows delivered is increased. The length of stroke is governed by the distance in which he lever is moved. The blow delivered depends both on he steam being admitted to the steam cylinder and the veight of the piston rod, the ram and the ram dye.			•			
Railway Workshops SRAO EL W29) indicates a steam hammer in this precise location. Function and Operation: The steam hammer was used for a variety of items produced for the railways. These varied from the roughing out of small axles and shafts to he production of small items which were drop-forged in spring swage sets. The operating lever is moved with a pumping action and a skilled operator can change both the length of the blow and its rapidity. As the operation of the lever is increased in speed, the speed of the blows delivered is increased. The length of stroke is governed by the distance in which he lever is moved. The blow delivered depends both on he steam being admitted to the steam cylinder and the veight of the piston rod, the ram and the ram dye.	nammer was power and of Bay 2. The h	ed by ste ammer c	eam via an overhead steam li onsists of a cast-iron steel frar	ne from the boiler heade ne, virtually in the form o	ers at the s f a C.	
For a variety of items produced for the railways. These varied from the roughing out of small axles and shafts to the production of small items which were drop-forged in spring swage sets. The operating lever is moved with a pumping action and a skilled operator can change both the length of the blow and its rapidity. As the operation of the lever is increased in speed, the speed of the blows delivered is increased. The length of stroke is governed by the distance in which he lever is moved. The blow delivered depends both on he steam being admitted to the steam cylinder and the weight of the piston rod, the ram and the ram dye.	Railway Workshops	SRAO El	r was installed in this location i L W29) indicates a steam ham	in 1904. (The 1912 plan mer in this precise location	of the Eve on.	leigi
varied from the roughing out of small axles and shafts to the production of small items which were drop-forged in spring swage sets. The operating lever is moved with a pumping action and a skilled operator can change both the length of the blow and its rapidity. As the operation of the lever is increased in speed, the speed of the blows delivered is increased. The length of stroke is governed by the distance in which he lever is moved. The blow delivered depends both on he steam being admitted to the steam cylinder and the weight of the piston rod, the ram and the ram dye.				Location: Bay 2 North	3-4W	
the production of small items which were drop-forged in spring swage sets. The operating lever is moved with a pumping action and a skilled operator can change both the length of the blow and its rapidity. As the operation of the lever is increased in speed, the speed of the blows delivered is increased. The length of stroke is governed by the distance in which he lever is moved. The blow delivered depends both on he steam being admitted to the steam cylinder and the weight of the piston rod, the ram and the ram dye.					<b></b> 1	
The operating lever is moved with a pumping action and a skilled operator can change both the length of the blow and its rapidity. As the operation of the lever is increased in speed, the speed of the blows delivered is increased. The length of stroke is governed by the distance in which he lever is moved. The blow delivered depends both on he steam being admitted to the steam cylinder and the veight of the piston rod, the ram and the ram dye.					2	
The operating lever is moved with a pumping action and a skilled operator can change both the length of the blow and its rapidity. As the operation of the lever is increased in speed, the speed of the blows delivered is increased. The length of stroke is governed by the distance in which he lever is moved. The blow delivered depends both on he steam being admitted to the steam cylinder and the weight of the piston rod, the ram and the ram dye.		mall item	s which were drop-forged in	►×××	4	
skilled operator can change both the length of the blow and its rapidity. As the operation of the lever is increased in speed, the speed of the blows delivered is increased. The length of stroke is governed by the distance in which he lever is moved. The blow delivered depends both on he steam being admitted to the steam cylinder and the veight of the piston rod, the ram and the ram dye.		ic moved	with a numping action and a	╵──┥╾╾┥╾╾┥	6	
and its rapidity. As the operation of the lever is increased in speed, the speed of the blows delivered is increased. The length of stroke is governed by the distance in which he lever is moved. The blow delivered depends both on he steam being admitted to the steam cylinder and the veight of the piston rod, the ram and the ram dye. 4A + 3 + 2 + 1						
n speed, the speed of the blows delivered is increased. The length of stroke is governed by the distance in which he lever is moved. The blow delivered depends both on he steam being admitted to the steam cylinder and the veight of the piston rod, the ram and the ram dye.						
The length of stroke is governed by the distance in which he lever is moved. The blow delivered depends both on he steam being admitted to the steam cylinder and the veight of the piston rod, the ram and the ram dye. 12 13 14 15 4A 4 3 2 1					~}~E	
he lever is moved. The blow delivered depends both on he steam being admitted to the steam cylinder and the veight of the piston rod, the ram and the ram dye.						
he steam being admitted to the steam cylinder and the veight of the piston rod, the ram and the ram dye.						
veight of the piston rod, the ram and the ram dye.					15	
				4A 4 3 2	1	
				and inspected Decemb	er 1995	
			·			
			U. A.			
	Allestanic	In a second second		Sg. + 2 € 2		
				na trage an arm an an ann an		
		}				
		N. Antonia				
the second se				Million of Sector State Sector Sec		
the state of the s		~~~~				
			······································			

Item Name: Davis & Primrose Steam Hammer 4

Item No. 32

#### **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.

Signific	ance Mat	trix			State Historical Themes:		
. –	Historical	Aesthetic	Social	Technology/ Research Potential	Category	Moveable Item	Industrial Relic
Rare	X	X			Themes	13 Transport 15 Utilities	
Repres- entative Specifical Railways.	🖾 Iy manufa	Ctured for	the NSW	De Government		<ul> <li>16 Industry</li> <li>16 Technology</li> <li>20 Government A</li> </ul>	Administration

## 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 large steam system. The item is a large, rare, industrial piece exhibiting massive cast-iron construction specifically manufactured for the NSW government railways. 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 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 retained in its present location and be preserved as part of the 8cwt4 steam hammer assemblage, the steam hammer collection and the steam system to which it belongs.

## 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. 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. All pipes are to be disconnected, cleaned, dried and treated with rust inhibitor. They may then be reconnected. All operating surfaces exhibiting a normally bright finish should be suitably polished and coated with an appropriate sealant such as Shell ENSIS fluid or a polycrystalline wax.

Conserve in situ.

#### **Maintenance Schedule**

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.

Interpretation:

1996	
------	--

Item Name: Frazing and Grinding Wheel	Item No. 33
Name Plate:	
Associated Items:	
Inđividual 🛛 Assemblages 🖸	
Collection I Frazing Wheels 33, 78, 8 Systems	
	Il items in Bay 2N except 38.
<b>Description:</b> The Frazing and Grinding Wheel has a cas which holds a frazing wheel on one end and a fifteen inch their beds integrated into the cast iron frame, support the middle of the shaft which is powered by a series of four V- There is no name plate information on the item but it is Foundry and that the item has been produced by the Work	emery wheel on the other. Two bearings e shaft. A driven wheel is located in the belts by a one horsepower electric motor believed that it was cast in the Eveleigh (shops.
<b>History:</b> The history of the item is unknown but it is likely the blacksmith's shop had the steam hammer installed.	that it dates from the time that this part of
Function and Operation: The Frazing and Grinding Wheel is used for the rough cleaning of items which have been forged in the Bay 2 North. The Frazing Wheel consists of a series of hardened teeth which are parallel to the axis of the shaft. These teeth which have a pitch of about 7mm are used for the rough cleaning of hot steel as t comes from the forge.	
Photo: FILM No. 95-169-3-34 Photographe	d and inspected December 1995

1996

Item Nan	ne: Fraz	ing & Grin	ding Whe	eel			Item No. 33
Conditio	n:					- <u></u>	L
		m appears	to be in	operable conc	lition provid	ding power sources are	connected and
the item is	s cleane	d, serviced	d and tes	ted.			
The exter	nal surfa	ace of the i	item has	patches of sup	perficial rus	st and bare metal.	
The paint	ed surfa	ce of the it	em is de	teriorating.			
Significa	nce Mat	rix		i	State His	storical Themes:	
-	listorical	Aesthetic	Social	Technology/ Research Potential	Category	O Moveable Item	Industrial Relic
Rare	X	X		X	Themes	13 Transport	
Repres-						15 Utilities	
entative	52			53		16 Industry	
GILLIVO	3	-	-			18 Technology	
			·			20 Government Admi	
being ass hammer	sociated assembl	with their age. The	operation item evi	n for over 60 y	years. The ersatility of	of the Eveleigh Locomo e item is an integral pa the workshops in the tural integrity.	art of the steam
Conserva	ation Po	licy:				·	· · · · · · · · · · · · · · · · · · ·
				ent location ar		served as part of the	steam hammer
		-	-	being cleane nedules given		ed and maintained ac	cording to the
Policy Im	nplemen	tation:					
rust is to	be remo	ved or trea	ated. All			g appropriate methods be treated with an app	
abrasive	or steel	brushing.	Remnan		e treated	blasting using a lime with an inhibitor and fir alline wax.	
Conserve	e in situ.						
Maintena	ance Sc	hedule					
Inspect all external surfaces for rust every 12 months. Where necessary, coat as recommended in the implementation section.							
Interpret	ation:						
GODDEN	I MACK	AY PTY I	LTD, 78	GEORGE S	I, KEDFE	RN NSW 2016 PH:	(UZ) 379 4811

1996

Item Name: Tool Ra	acks Bet	ween the Columns		Item No. 34A-L
Name Plate:			· · · · · · · · · · · · · · · · · · ·	
Associated Items:		<u> </u>		
Individual				
Assemblages	M	Steam Hammer 8CWT, 1	2 3 8 4	
Collection			., 36A-D, 62A-E, 66A-H, 7	1 100A-D
	—	102A-D		1, 100/1-0,
Systems	D			
<b>Operational Groups</b>	M	Steam Hammer Shop. A	Il items in Bay 2N except 3	38.
		e formed by mounting vertica		
line of the cast-iron of	columns	and fastening as many as fi	ve single or double steel	straps between
them. In many case	s there v	was a vertical intermediate b	ar to support the horizont	al strans which
acted as the racks.	Each of t	hese racks contained a num	her of hammers holders	snecialist tongs
of various shapes, sw	vages an	d fullers with steel handles a	nd spring swage sets	specialist tongs
• •			in opining ontage oots.	
History: The history	of the	racks is not known but they	certainly appear in simila	ar form in early
photographs of the w	orkshops	s (MLGBO Video Disc 1 0667	9SS1884).	
<b>Function and Opera</b>	tion: Th	ne racks were there purely to	Location: Bay 2 North	2-7
hold tools and poss	ibly othe	er small items used in the		
workshops.				2
				3
				5
				6 7
				8
				9 10
				11
				12 13
				14
			4A 4 3 2	15 1
Photo: FILM N	lo. 95-1	69-3-35 Photographed	and inspected Decemb	er 1995
		$\partial y^{\hat{\gamma}}$	A North A Martin	
		AT AT AT AT AT AT AT AT	AN A	
	- 1.		THE DESCRIPTION OF 199	and the second second
	(-4 			
	· · · · ((			
				Contraction -
,				
	4			
				City i de la

ŝ

Item Name: Tool Racks Between Columns Item No.						Item No. 34A-L	
Condition:							
The item	is in go	od/excellent	operatii	ng condition.			ŧ
The exte	rnal surf	ace of the it	em has	patches of su	perficial rus	st and bare metal.	
Significa			_		State His	storical Themes:	
l	Historical	Aesthetic	Social	Technology/ Research Potential	Category	Moveable Item	Industrial Relic
Rare					Themes	13 Transport 15 Utilities	
Repres- entative						16 Industry	
	—	_	_	_		<ul> <li>18 Technology</li> <li>20 Government A</li> </ul>	Administration
being as hammer evident i	sociated and oliv n opera	with their over systems at the system set of the system set	peration The it	n for over 20 tem represent The item evic	years. The s former n dences the	e item is an integra nanufacturing tech e versatility of the	comotive Workshops al part of the steam nologies now rarely workshops in the pret from its existing
Conserv	ation P	olicy:	·				
		etained in i I hand tool o			nd be pres	served as part of	the steam hammer
Policy Implementation: All items which are not being used in the present operations in Bays 1 & 2 South should have all external surfaces 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.							
Mainten	ance Sc	hedule					
Inspect all external surfaces for rust every 12 months. Where necessary, coat as recommended in the implementation section.							
Interpretation:							
GODDEN		KAY PTY L	TD, 78	GEORGE S	T, REDFE	RN NSW 2016 F	PH: (02) 319 4811

EVELEIGH LOCOMOTIVE WORKSHOPS MACHINERY CONSERVATION

	1000
Item Name: Hot Metal Circular Saw	Item No. 35
Name Plate:	

Name Plate:	
Associated Items:	
Assemblages	
Collection	
Systems	
	l items in Bay 2N except 38.
Description: This small, circular saw has a cast-iron fram	ne and bed and is mounted at the south
end of Bay 2 North. It is powered by an elevated electric	motor which is mounted on the adjacent
column and powers the saw through a fabric belt. It would	appear that the saw has been mounted
in this position for some time and it is probable that it was	s originally driven by a belt from the line
shaft.	
History: The history of the item is unknown but it is believe	ad to have been in this landing in the
<b>History:</b> The history of the item is unknown but it is believ	ed to have been in this location since the
steam hammer shop was established. The item appears i 1912 (SRAO ELW 29).	in the plan of the Eveleigh workshops in
1012 (01040 LEW 23).	
Function and Operation:	Location: Bay 2 North 7W
Used for cutting hot steel - and for this purpose has an	Location. Day 2 Notiti / VV
unusually thick blade.	
	3
	<b>5</b>
	67
	8
	9 10
	12
	14
	4A 4 3 2 1
Photo: FILM No. 95-169-3-36 Photographed	and inaposted December 1005
Photographed	and inspected December 1995
and the second	
	•
A TALE STORE	
ANTING OF THE PARTY AND	
	n the state of the
	statut get i gat for get i
and the second	

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

	Item	Name:	Hot	Metal	Circular	Saw
Ì				motar	Oncular	Oaw

Item No.	35
	00

## 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.

The painted surface of the item is deteriorating.

## Significance Matrix

Signific	cance Ma	trix			State His	storical Themes:	
	Historical	Aesthetic	Social	Technology/ Research Potential	Category	Moveable Item	Industrial Relic
Rare	X	×		×	Themes	13 Transport	
Repres-						15 Utilities	
entative	×	П	П			16 Industry	
Cliffente			4	X		18 Technology	
				i		20 Government /	Administration

Statement of Significance: The item was an integral part of the Eveleigh Locomotive Workshops being associated with their operation for over 60 years. The item is an integral part of the steam hammer assemblage. The item evidences the versatility of the workshops in the manufacture of tools and machines. 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 steam hammer assemblage and frazing wheel collection to which it belongs.

The item is to be preserved by being cleaned, serviced and maintained according to the implementation and maintenance schedules given below.

Conserve in situ.

## Policy Implementation:

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.

A heavily rusted surface should be cleaned with abrasive blasting using a limestone or similar abrasive or steel brushing. Remnant rust should be treated with an inhibitor and finally coated with an appropriate sealant such as Shell ENSIS fluid or polycrystalline wax.

## **Maintenance Schedule**

Inspect all external surfaces for rust every 12 months. Where necessary, coat as recommended in the implementation section.

Interpretation:

1996
------

Item Name: Tool Ra	icks Portat	ble		Item No. 36A-F
Name Plate:	. <u> </u>	, a.a		00/11
Associated Items:		an a	······································	
Individual				
Assemblages		Steam Hammer 20 CWT	46, 47, 57, 66E	
Collection		Hand tools/ Racks 34A-L 102A-D	, 36A-D, 62A-E, 66A-H, 7	′1, 100A-D,
Systems				
Operational Groups		Steam Hammer Shop. Al	l items in Bay 2N except	38.
Description: There	are a num	ber of portable tool racks in	n Bay 2 North which hold	fullers swages
and spring fullers and	swages.	They are generally formed	from bar steel and cons	sist of converted
Y-shaped ends and t	hree horiz	ontal bars. In some instar	nces hooks have been riv	veted to the top
bar to hold the items.	In other c	ases the items are simply s	lung over the bar.	
····		is is unknown but it would a	ippear that they are of ea	rly construction.
		he tool racks held those	Location: Bay 2 North	1-7
series of tools for use	e by the b	lacksmith in forging. The		1
advantage of these t	OOI FACKS	is that it was possible to		2
and to provide ready		the workshop to another		3 4
the different forging of	access to	different types of tools for		5
the different lorging of	perations.			7
				8
				10
				11
			╏ ┠╌╌╍┝╼╼ <b>-</b> ┝╼╼-┝╼╼-	12
				14
			4A 4 3 2	15 1
Photo: FILM N	lo. 95-169	-1-3 Photographed	and inspected Decemb	er 1995
	<del></del>	······································		
:			м	
		The second s	2-7	
	题			
	15			
			5.	
	1E			
	State and the state			
· · · · · · · · · · · · · · · · · · ·				

Item Name: Tool Racks - Portable			Item No. 36A-F			
Condition:	- <u>,,</u>					
The item is in good/excellent operating conc	dition.					
The external surface of the item has patche	s of superficial ru	st and bare metal.				
Significance Matrix	State His	storical Themes:				
Historical Aesthetic Social Techn Resea Poten	[	Moveable Item	Industrial Relic			
Rare 🗋 🗖	Themes	13 Transport				
Repres		15 Utilities				
Repres- entative ☑	<b>1</b>	16 Industry				
		18 Technology				
		20 Government /	Administration			
Statement of Significance: The item was being associated with their operation for ow hammer and oliver systems. The item rep evident in operating workshops. The ite manufacture of tools and machines. The ite fabric.	ver 20 years. The presents former re em evidences the	e item is an integra nanufacturing tech e versatility of the	al part of the steam nologies now rarely workshops in the			
Conservation Policy:						
The item is to retained in its present loca assemblage, and hand tool collections.	ation and be pres	served as part of	the steam hammer			
Conserve in situ.						
Policy Implementation:						
All items which are not being used in the present operations in Bays 1 & 2 South should have all external surfaces 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.						
Maintenance Schedule						
Inspect all external surfaces for rust every 1 the implementation section.	12 months. When	re necessary, coat	as recommended in			
Interpretation:						
			l			

1996

Item Name: Benches for Moulds, Dyes, Templates and	Tools.	<b>Item No.</b> 37A-I
Name Plate:		317-1
Associated Items:		
IndividualImage: Constraint of the second secon	Г 46, 47, 57, 66E	
	All items in Bay 2N except 3	
<b>Description:</b> These small benches vary in size and cor made from angle steel and angle steel rails which hold braced by diagonal strap steel at each end. The dyes, varying use with the steam hammers and various forgin North. <b>History:</b>	l sheet steel shelves. The moulds and templates on	ey are normally them were for
Function and One actions		
Function and Operation:	Location: Bay 2 North	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 1
Photo: FILM No. 95-169-1-4 Photographe	ed and inspected Decemb	per 1995

1	996

						CONSERVATION	1996
Item Na	me: Raci	ks for Moul	ids, Dies	, Templates &	I 0015		Item No. 37A-I
Condition The item		jood/excell	ent opera	ating conditior	).		L
The exte	rnal surfa	ace of the it	tems hav	e patches of s	superficial	rust and bare metal.	
-	ance Mat				State His	storical Themes:	
	Historical	Aesthetic	Social	Technology/ Research Potential	Category	🗋 Moveable Item 🗧	Industrial Relic
Rare					Themes	13 Transport	
Repres-						15 Utilities	
entative	M			$\mathbf{\nabla}$		16 Industry 18 Technology	
						20 Government Adm	inistration
of the st rarely ev	eam harr ident in c ture of to	nmer asser	nblage. /orkshop	The items re s. The items	present fo evidence	years. The items are ormer manufacturing to the versatility of the v operation is easy to i	echnologies now vorkshops in the
Conserv	vation Po	licy:					
		be retained hand tool o	•		n and be p	preserved as part of the	e steam hammer
Conserv	e in situ -	may repos	ition in s	ame bay.			
Policy Ir	nplemen	tation:	<u></u>				
external removed	surfaces	cleaned a	nd degre ternal su	eased using a rfaces are to	ppropriate	s in Bays 1 & 2 South methods. All superfi d with an appropriate	cial rust is to be

## **Maintenance Schedule**

Inspect all external surfaces for rust every 12 months. Where necessary, coat as recommended in the implementation section.

#### Interpretation:

			CT CONSERVATION	1996
Item Name: Lathe				Item No. 38
Name Plate: NSW	6 J Whitworth &	Co Manchester		L
Associated Items:				
Assemblages Collection	□ . Ø Lath	000 38 107 100 131	141 467 469 000	
Systems		nes 38, 107, 109, 131	, 141, 167, 168, 200	
Operational Groups				
		lathe bed nartial be	adstock and partial tail	stock is all the
remains of one of the	ne oldest lathes i	n the workshop. The	bed is in excess of four	metres long is
about 400mm wide	and 800mm high	. The ways of the be	d are machined cast iron	The tail stock
is now at the wester	n extremity. The	re is no real indication	n of the type of headstock	< nor the way ir
which it operated.				
History: The lathe	was manufactur	ed for the New South	h Wales Government by	
Company of Manche	ester, England, in	1883. It was installed	d in the workshops in 188	VUNILWORTN and 37 It is unlikely
that this was its origi	nal location and i	t does not appear on t	the 1912 drawing (SRAO	ELW29).
the lathe are unknow	ation: The funct	tion and operation of	Location: Bay 2 North	1W
	¥ I .		<b></b>	1
			│ <b>├</b> ──-├├-┻	<b>S</b> 2 3
				4
				6
				9 10
				11
				13
				14 15
<u> </u>				2 1
Photo: FILM	No. 95-169-1-5	Photographed	and inspected Decemb	er 1995
			N .	
		de la		
		्र सर्ग क्र		
	A	Style - Constant State	$\Gamma_{\perp}$	
	- F			
	and a second			
	×			
	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1			
Sec. 2				
2. 2			and share a second s	n in the second se
e			and the second	

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

ŧ٠

## E

	me: Lat	he Red					Item No. 38
							item ino. 50
Conditi	on:						
In gene	ral, the ite	m appears	s to be in	complete and	not operab	le because of missing	components.
The ext	ernal surf	ace of the	item has	patches of su	perficial rus	st and bare metal.	
Signific	ance Ma			······································	State His	storical Themes:	
	Historical	Aesthetic	Social	Technology/ Research Potential	Category	Moveable Item	Industrial Relic
Rare	×	X	X	X	Themes	☐ 13 Transport	
Repres-						D 15 Utilities	
entative	×			X		□ 16 Industry	
						<ul> <li>18 Technology</li> <li>20 Government Admi</li> </ul>	nistration
Statem	ent of Sic	nificance					
	-	•					
operatio construc	n for over	r 100 year which had	s. The ite general	em is a large,	rare, indus oplication.	Vorkshops being asso trial piece exhibiting m The item has researc g practice.	assive cast-iron
Conser	vation Po	olicy:				······	
The iten	n is to reta	ained in its	present l	ocation.			
				being cleane nedules given l		d and maintained ac	cording to the
Policy I	mplemen	tation:				· · · · · · · · · · · · · · · · · · ·	
rust is to	be remo	ved or trea	ated. All	external surfa	ased using	g appropriate methods be treated with an app	. All superficial
		SIS fluid o	r polycrys	talline wax.			ropriate sealant
Conserv	re in situ.		r polycrys	talline wax.			ropriate sealant
Conserv			r polycrys	stalline wax.			ropriate sealant
Conserv Mainter Inspect	re in situ. <b>nance Sci</b> all externa	hedule				e necessary, coat as re	
Conserv Mainter Inspect the impl	re in situ. <b>nance Sci</b> all externa ementatio	hedule al surfaces					
Conserv Mainter Inspect the impl	re in situ. <b>nance Sci</b> all externa ementatio	hedule al surfaces					
Conserv Mainter Inspect	re in situ. <b>nance Sci</b> all externa ementatio	hedule al surfaces					
Conserv Mainter Inspect the impl	re in situ. <b>nance Sci</b> all externa ementatio	hedule al surfaces					

•

Item Name: Wo	rkhench with 6				Itom No.	
					Item No.	39
Name Plate:					·	
Associated Item					· · · · · ·	
Individual						
Assemblages		•				
Collection Systems						
Operational Grou	nos Erí	Spring Shor	123-125 14	9-157, 159, 161		
	F- <b>-</b>			er bench with a sheet-ste		
very heavy forged	d vice.	S all extreme		er bench with a sneet-ste	el cover a	ina a
History: The be	ench was of the	e pattern typi	ically made b	y the apprentice carpente	ers and join	ners.
Benches such as	this were used	right through	nout the Evele	igh Workshops complex.	·	
Function and O	peration: The	bench could	be used for	Location: Bay 2 North	5 Faet	
all metal worki	ng operations	, the shee	t steel top			
preventing damag	ge to the wood	. The two di	rawers to the		2	
front were normal	ly used for stor	ing bench too	ols.	<b> </b>		
	_				5	
					7	
					8	
					10	
					12	
					13	
					1 15	
Photo: FIL	M No. 95-169	16 0				
		-1-0 P	notographed	and inspected Decemb	er 1995	
					1	
			· · · · · · · · · · · · · · · · · · ·			
				<b>~</b>		
				, ì		
				¥ *		
			u la	A CONTRACTOR		
		-1 				
					·	

Item Name: Work Bench (Timber) With 6" Vice

Item No. 39

**Condition:** 

The item is in good/excellent operating condition.

The external surface of the item has patches of superficial rust and bare metal.

Signific	cance Ma	trix			State His	storical Themes:	
-	Historical	Aesthetic	Social	Technology/ Research Potential	Category	Moveable Item	C Industrial Relic
Rare					Themes	13 Transport	
_						15 Utilities	
Repres-	-	_	-	_		16 Industry	
entative		ų				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 20 years. The item is an integral part of the steam hammer assemblage. The item represents former manufacturing technologies now rarely evident in operating workshops.

## **Conservation Policy:**

The item is to retained in its present location and be preserved as part of the steam hammer assemblage, and hand tool collections.

## **Policy Implementation:**

All items which are not being used in the present operations in Bays 1 & 2 South should have all external surfaces 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.

#### **Maintenance Schedule**

Inspect all external surfaces for rust every 12 months. Where necessary, coat as recommended in the implementation section.

Interpretation:

<b>Description:</b> This grinder is similar to several others which are mounted throughout the workshops. It consists of a cast-iron frame which holds two bearing blocks which support the main shaft. On the ends of the main shaft are mounted a very coarse and a coarse grinding wheel of about 400mm in diameter. Very heavy tool rests bolted to slots in the cast frame are provided. The wheels are direct driven from a one horsepower motor mounted on the back of the cast-iron frame with V-belts. A simple, on-off switch in a sheet metal cabinet is mounted on the front of the frame. <b>History:</b> The history of the item is unknown but it appears that it would certainly have been driven from a line-shaft. It does not appear on any of the historic plans and the time it has spent in this location is unknown. <b>Function and Operation:</b> The grinding wheel which operated at very high speed was used for the sharpening and grinding of tools rather than the grinding of items which had been formed on the forge. <b>Location:</b> Bay 2 North 2W	Item Name: The D	ual Grinder		Item No. 40
Individual Assemblages Collection Systems Systems Several others which are mounted throughout the main shaft of a cast-iron frame which holds two bearing blocks which support the main shaft. On the ends of the main shaft are mounted a very carse and a coarse grinding wheel of about 400mm in diameter. Very heavy tool rests bolted to slots in the cast frame are provided. The wheels are direct driven from a one horsepower motor mounted on the back of the cast-iron frame wheels are direct driven from a one horsepower motor mounted on the back of the cast-iron frame wia V-belts. A simple, on-off switch in a sheet metal cabinet is mounted on the front of the frame. History: The history of the item is unknown but it appears that it would certainly have been driven from a line-shaft. It does not appear on any of the historic plans and the time it has spent in this location is unknown. Function and Operation: The grinding wheel which castion: Bay 2 North 2W perated at very high speed was used for the sharpening and grinding of tools rather than the grinding of items which had been formed on the forge. Photo: FILM No. 95-169-1-7 Photographed and inspected December 1995	Name Plate:			
Assemblages Collection Systems Collection Systems Seam Hammer Shop. All items in Bay 2N except 38. Description: This grinder is similar to several others which are mounted throughout the workshops. It consists of a cast-iron frame which holds two bearing blocks which support the main shaft. On the ends of the main shaft are mounted a very coarse and a coarse grinding wheel of about 400mm in diameter. Very heavy tool rests bolted to slots in the cast frame are provided. The wheels are direct driven from a one horsepower motor mounted on the back of the cast-iron frame which holds two bearing blocks which support the main shaft. On the ends of the item is unknown but it appears that it would certainly have been driven from a line-shaft. It does not appear on any of the historic plans and the time it has spent in this location is unknown. Function and Operation: The grinding wheel which poerated at very high speed was used for the sharpening and grinding of tools rather than the grinding of items which had been formed on the forge.  Photo: FILM No. 95-169-1-7 Photographed and inspected December 1995	<b>Associated Items:</b>			
Collection	Individual	Q		
Systems       Steam Hammer Shop. All items in Bay 2N except 38.         Description:       This grinder is similar to several others which are mounted throughout the main shaft. On the ends of the main shaft are mounted a very coarse and a coarse grinding wheel of about 400mm in diameter. Very heavy tool rests bolted to slots in the cast frame are provided. The wheels are direct driven from a one horsepower motor mounted on the back of the cast-iron frame which holds two bearing blocks which support the main shaft. On the ends of the main shaft are mounted a very coarse and a coarse grinding wheel of about 400mm in diameter. Very heavy tool rests bolted to slots in the cast frame are provided. The wheels are direct driven from a one horsepower motor mounted on the back of the cast-iron frame.         History:       The history of the item is unknown but it appears that it would certainly have been driven from a line-shaft. It does not appear on any of the historic plans and the time it has spent in this location is unknown.         Function and Operation:       The grinding wheel which operated at very high speed was used for the sharpening and grinding of tools rather than the grinding of items which had been formed on the forge.       Location: Bay 2 North 2W         Photo:       FILM No. 95-169-1-7       Photographed and inspected December 1995	Assemblages			
Operational Groups       E       Steam Hammer Shop. All items in Bay 2N except 38.         Description:       This grinder is similar to several others which are mounted throughout the workshops. It consists of a cast-iron frame which holds two bearing blocks which support the main shaft. On the ends of the main shaft are mounted a very coarse and a coarse grinding wheel of about 400mm in diameter. Very heavy tool rests bolted to slots in the cast frame are provided. The wheels are direct driven from a one horsepower motor mounted on the back of the cast-iron frame with V-belts. A simple, on-off switch in a sheet metal cabinet is mounted on the front of the frame.         History:       The history of the item is unknown but it appears that it would certainly have been driven from a line-shaft. It does not appear on any of the historic plans and the time it has spent in this location is unknown.         Function and Operation:       The grinding wheel which operated at very high speed was used for the sharpening and grinding of tools rather than the grinding of items which had been formed on the forge.         Photo:       FILM No. 95-169-1-7       Photographed and inspected December 1995         If the main transmit of the main transmit of the provest of the provest of the first of the first of the first of the grinding of tools rather than the grinding of tools rather than the grinding of items which had been formed on the forge.       Image: I	Collection			
Description:       This grinder is similar to several others which are mounted throughout the workshops. It consists of a cast-iron frame which holds two bearing blocks which support the main shaft. On the ends of the main shaft are mounted a very coarse and a coarse grinding wheel of about 400mm in diameter. Very heavy tool rests bolted to slots in the cast frame are provided. The wheels are direct driven from a one horsepower motor mounted on the back of the cast-iron frame via V-belts. A simple, on-off switch in a sheet metal cabinet is mounted on the front of the frame.         History:       The history of the item is unknown but it appears that it would certainly have been driven from a line-shaft. It does not appear on any of the historic plans and the time it has spent in this location is unknown.         Function and Operation:       The grinding wheel which location:       Bay 2 North 2W         Operated at very high speed was used for the sharpening and grinding of tools rather than the grinding of items which had been formed on the forge.       Description:       Bay 2 North 2W         Photo:       FILM No. 95-169-1-7       Photographed and inspected December 1995         Upper Hear       Upper Hear       Upper Hear         Upper Hear       Up	Systems			
Description:       This grinder is similar to several others which are mounted throughout the workshops. It consists of a cast-iron frame which holds two bearing blocks which support the main shaft. On the ends of the main shaft are mounted a very coarse and a coarse grinding wheel of about 400mm in diameter. Very heavy tool rests bolted to slots in the cast frame are provided. The wheels are direct driven from a one horsepower motor mounted on the back of the cast-iron frame via V-belts. A simple, on-off switch in a sheet metal cabinet is mounted on the front of the frame.         History:       The history of the item is unknown but it appears that it would certainly have been driven from a line-shaft. It does not appear on any of the historic plans and the time it has spent in this location is unknown.         Function and Operation:       The grinding wheel which location:       Bay 2 North 2W         Operated at very high speed was used for the sharpening and grinding of tools rather than the grinding of items which had been formed on the forge.       Description:       Bay 2 North 2W         Photo:       FILM No. 95-169-1-7       Photographed and inspected December 1995         Upper Hear       Upper Hear       Upper Hear         Upper Hear       Up	<b>Operational Groups</b>	Steam Hammer Shop. Al	l items in Bay 2N except 3	38.
Workshop3. It Consists of a cast-iron frame which holds two bearing blocks which support the main shaft. On the ends of the main shaft are mounted a very coarse and a coarse grinding wheel of about 400mm in diameter. Very heavy tool rests bolted to slots in the cast frame are provided. The wheels are direct driven from a one horsepower motor mounted on the back of the cast-iron frame via V-belts. A simple, on-off switch in a sheet metal cabinet is mounted on the front of the frame. History: The history of the item is unknown but it appears that it would certainly have been driven from a line-shaft. It does not appear on any of the historic plans and the time it has spent in this location is unknown. Function and Operation: The grinding wheel which operated at very high speed was used for the sharpening and grinding of tools rather than the grinding of items which had been formed on the forge. Location: Bay 2 North 2W Film No. 95-169-1-7 Photo: FILM No. 95-169-1-7 Photographed and inspected December 1995	Description: This			
Function and Operation: The grinding wheel which operated at very high speed was used for the sharpening and grinding of tools rather than the grinding of items which had been formed on the forge.       Location: Bay 2 North 2W         Image: Strain S	shaft. On the ends about 400mm in dia wheels are direct dr via V-belts. A simple <b>History:</b> The histor	of the main shaft are mounted a very meter. Very heavy tool rests bolted to s iven from a one horsepower motor mo e, on-off switch in a sheet metal cabine y of the item is unknown but it appears	v coarse and a coarse gr slots in the cast frame are unted on the back of the t is mounted on the front t that it would certainly ba	inding wheel of provided. The cast-iron frame of the frame.
operated at very high speed was used for the sharpening and grinding of tools rather than the grinding of items which had been formed on the forge. <ul> <li>Image: State of the sharpening of items which had been formed on the forge.</li> <li>Image: State of the sharpening of items which had been formed on the forge.</li> </ul> <ul> <li>Image: State of the sharpening of items which had been formed on the forge.</li> <li>Image: State of the sharpening of items which had been formed on the forge.</li> <li>Image: State of the sharpening of items which had been formed on the forge.</li> <li>Image: State of the sharpening of items which had been formed on the forge.</li> </ul> Photo:       FILM No. 95-169-1-7       Photographed and inspected December 1995         Image: State of the state of the sharpening of items which had been formed on the forge.       Image: State of the state of	location is unknown.			
And grinding of tools rather than the grinding of items which had been formed on the forge.	Function and Ope	ration: The grinding wheel which	Location: Bay 2 North	2W
which had been formed on the forge.	operated at very hig	h speed was used for the sharpening		1
Photo: FILM No. 95-169-1-7 Photographed and inspected December 1995	and grinding of too	is rather than the grinding of items	│	
Photo: FILM No. 95-169-1-7 Photographed and inspected December 1995	which had been form	ied on the forge.		4
Photo: FILM No. 95-169-1-7 Photographed and inspected December 1995				
Photo: FILM No. 95-169-1-7 Photographed and inspected December 1995				
Photo: FILM No. 95-169-1-7 Photographed and inspected December 1995				
Photo: FILM No. 95-169-1-7 Photographed and inspected December 1995				
Photo: FILM No. 95-169-1-7 Photographed and inspected December 1995				
Photo: FILM No. 95-169-1-7 Photographed and inspected December 1995				
Photo: FILM No. 95-169-1-7 Photographed and inspected December 1995			<u> </u>	15
DO NOT WEAR			4A 4 3 2	1
DO NOT WEAR	Photo: FILM	No. 95-169-1-7 Photographed	and inspected Decemb	er 1995
		DO NOT WEAR		
			8 (j.	

1996
------

### Item Name: Dual Grinder item No. 40 **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. The painted surface of the item is deteriorating. State Historical Themes: **Significance Matrix** Historical Aesthetic Social Technology/ Industrial Relic Research Category Moveable Item Potential 13 Transport Themes X X X Rare 15 Utilities Repres-16 Industry X X 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 60 years. The item is an integral part of the steam hammer assemblage. The item evidences the versatility of the workshops in the manufacture of tools and machines. 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 steam hammer assemblage and frazing wheel collection to which it belongs. The item is to be preserved by being cleaned, serviced and maintained according to the implementation and maintenance schedules given below. **Policy Implementation:** 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. A heavily rusted surface should be cleaned with abrasive blasting using a limestone or similar abrasive or steel brushing. Remnant rust should be treated with an inhibitor and finally coated with an appropriate sealant such as Shell ENSIS fluid or polycrystalline wax. Conserve in situ. Maintenance Schedule Inspect all external surfaces for rust every 12 months. Where necessary, coat as recommended in the implementation section.

Interpretation: