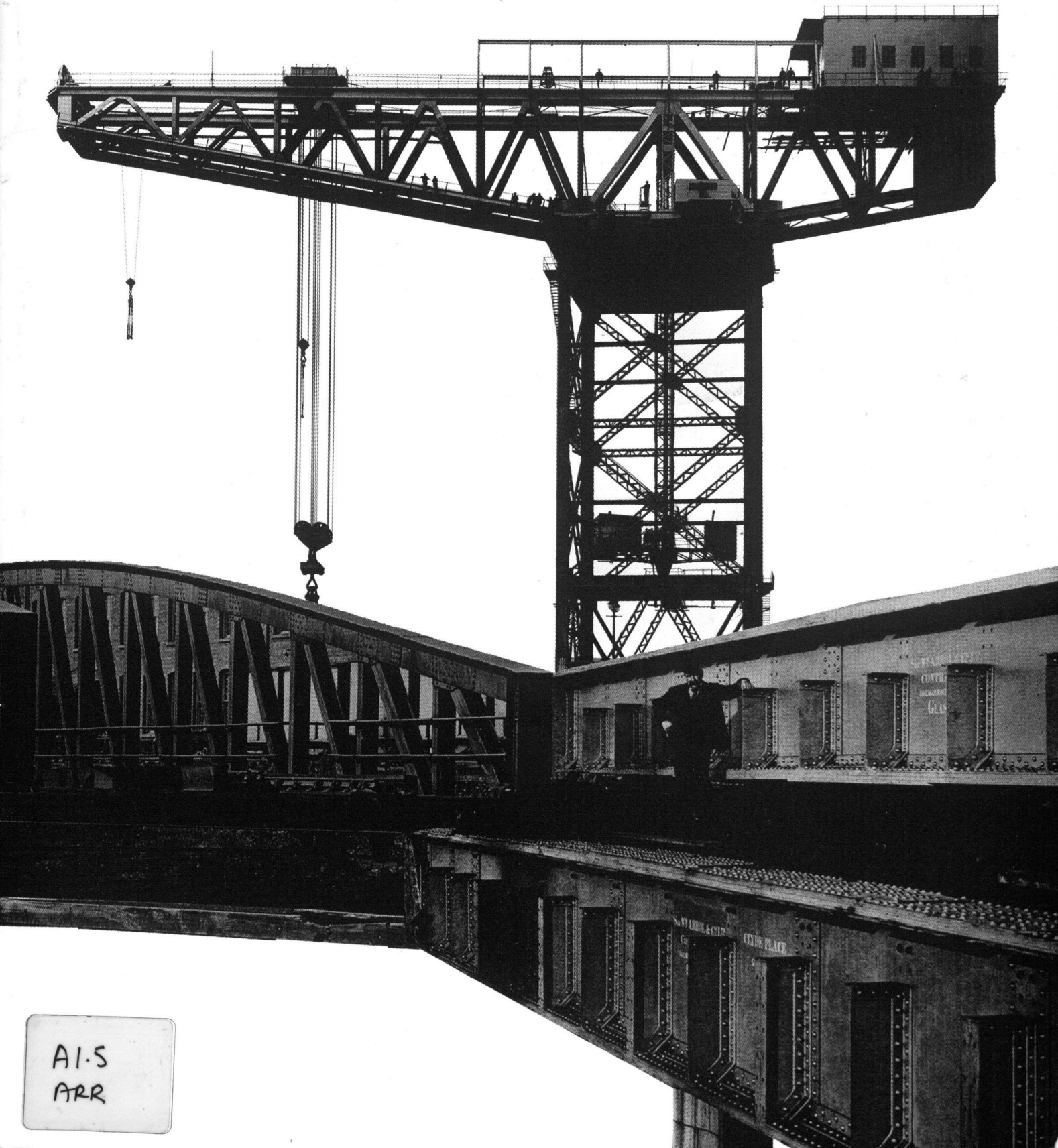




Royal
Commission on the
Ancient and
Historical
Monuments of
Scotland

The Sir William Arrol Collection

A Guide to the Scottish Material held in the
National Monuments Record of Scotland



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THE SIR WILLIAM ARROL COLLECTION

A
Guide
to the
Scottish Material
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National Monuments Record of Scotland

RCAHMS
1998

Preface and Acknowledgements

The purpose of this catalogue is to assist access to the Scottish material within the Sir William Arrol Collection, whose varied and fragile nature render it unsuitable for free-range consultation in the National Monuments Record of Scotland (NMRS). The catalogue is arranged primarily as a site-based gazetteer listing associated photographs, manuscript material and drawings together with published material deposited in the NMRS library. A short glossary of technical terms has also been added.

The catalogue was compiled by Miriam McDonald, with additional text and editing by Miles Oglethorpe, and with the assistance and guidance of John Stevenson, John McLeod, Roland Paxton, Geoffrey Stell, Dan MacKay, James Mitchell and Brian Newman. Special thanks for the gift of this archive are due to Mr W R Cox of Sir William Arrol and Company, whose generosity, assistance and advice led to the formation of the collection and the completion of this catalogue. Thanks are also due to Mr Allan Bell, the General Manager of Clarke Chapman Engineering Services Limited.

Those photographs listed as Ralston of Glasgow are the copyright of Jim MacIntosh Photography, Unit 5, Hathaway Business Centre, 21-9 Hathaway Street, Glasgow, and all enquiries about reproduction should be directed to that address. The Ralston photographic archive, which contains material dating from the 1940s to the mid-1980s, is held at Glasgow City Archives (formerly Strathclyde Regional Archives).

Enquiries about the Sir William Arrol Collection should be addressed to:

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The NMRS is open for public consultation Monday- Friday, 9.30 am - 4.30 pm (4.00 pm on Friday). It is closed during normal public holidays.

William Arrol (1839 - 1913) was one of the great Victorian contracting engineers. In 1872 he moved his recently established private company to the Dalmarnock area of Glasgow, initially specialising in boiler-making before diversifying into, amongst other activities, structural steelwork



Sir William Arrol, 1839-1913

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design as part of the reconstruction of the station. An earlier bridge built also by Arrol (1875-8) for the Caledonian Railway is just visible in the centre background. Its girders and decking had to be jacked up by 3 feet in order to achieve the rail level of the new bridge. (B 91884 PO, item 58)

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Plate 18: View from south-south-west across the fitting-out basin of the former Fairfield Shipyard in Glasgow (now Kvaerner Govan), showing the Arrol 220-ton Giant Cantilever crane (built in 1911). (B 41310, 1990, RCAHMS, item 74)

Plate 19: General view (enhanced for publication) of Waverley Station and the North Bridge, Edinburgh c.1908. Sir William Arrol and Company carried out the work on the North Bridge to a design by Blyth and Westland of Edinburgh. This is possibly the original publication photograph used in *Bridges, Structural Steel Work and Mechanical Engineering Productions*, 1909, 123-5. (B 93379 PO, item 85)

Plate 20: View from south-east of the old Victoria Bridge at Caputh (built in late 1880s), seen here prior to its replacement with a new bridge. Unconfirmed reports suggest that some of the members of this bridge were recycled from parts of the collapsed first Tay Bridge. (A 80965, 1987, RCAHMS, item 94)

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Plate 25: Forth Road Bridge: view from south overlooking the working site adjacent to South Queensferry, September 1960. The construction causeway can be seen clearly in the middle distance. The coils of temporary construction cable visible in the foreground were provided by Bruntons of Musselburgh, whose wire rope works closed in 1997 (W Ralston negative number 60/643/1). (C 87217 PO, item 122)

Erratum

Page 5: a technical problem caused the first five lines of this page to be transposed onto page 2. This page should therefore begin as follows:

Introduction: Sir William Arrol and Company Ltd

William Arrol (1839-1913) was one of the great Victorian contracting engineers. In 1872 he moved his recently established private company to the Dalmarnock area of Glasgow, initially specialising in boiler-making before diversifying into, amongst other activities, structural steelwork and particularly bridge construction. The company was

Introduction: Sir William Arrol and Company Ltd

and particularly bridge-construction. The company was therefore in an ideal position to take advantage of the introduction of mild steel¹ as a material for use in civil engineering projects from the late 19th century onwards. Bridge projects at home and overseas from the 1870s-1890s contributed to the company's pre-eminence. This was enhanced by the building up of its own engineering branch which manufactured specially designed plant and machine tools. Arrol was therefore able to achieve greater flexibility in originating and manufacturing bridge designs in house.

The business, which had become a public limited liability company in 1887, also exhibited great flexibility in adopting technical solutions, often innovative, to specific needs, such as the use of steel caissons and compressed air plant for the sinking of sub-aqueous foundations on projects including the Forth Bridge (completed in 1890), and the use of pontoons (with telescopic hydraulic jacks) in the reconstruction of the Tay Bridge (completed in 1887). The company also established a reinforced concrete department in the late 1920s, enabling it to design and undertake reinforced concrete work.²

The involvement in structural steelwork had begun in the 1880s with the provision of a light steel glazed roof for the smithy at Dubs Locomotive Works, later North British Locomotive Company, at Springburn in Glasgow. This area of their work prospered, and the company went on to build some of the largest workshops and steelworks in Britain.³ In the same period, the growing demands of marine engineering necessitated the building of cranes that could cope with increased loads in the shipyards of Britain and overseas.

Crane building, both electric and hydraulic, was a part of the company's work from its early days. The construction of steelwork and bridges, with the accompanying need to erect plant and structures often in confined spaces, led to the development of the mechanical engineering department at the Dalmarnock Works. The company confidently claimed in 1909 that 'few shipyards are without some Sir William Arrol and

Company's hand, hydraulic or electric jib-cranes for feeding machine tools and for other purposes'.⁴ The growth of marine engineering and the need for apparatus to move heavy machinery saw Sir William Arrol and Company Ltd moving into the designing and building of a wide variety of cranes for shipyards (see Plates 1, 2, 3, 18), of which the Giant Cantilever cranes, capable of lifting 150 tons and more, are the most famous (Plates 11 and 18).

The first Giant Cantilever crane built by the company was for John Brown & Co. Ltd, Shipbuilders of Clydebank, in 1907 (Figure 1). At this time, Stothert and Pitt of Bath were sub-contracted to provide all the mechanical appliances needed for lifting, racking and slewing motions, ropes and snatch blocks. The acquisition of the Appleby Crane and Transporter Co. Ltd of Parkhead, Glasgow and Leicester in 1910 allowed the company to provide both its own mechanical crane appliances and a broad range of associated products thereafter.⁵

In the ensuing decades, the company's order books diversified to include a wide variety of engineering projects throughout the world. These comprised work on bridges of many types, including large suspension bridges such as the Forth, Severn and Humber road bridges (in partnership with The Cleveland Bridge Company and Redpath Dorman Long), swing and lift bridges for canals, navigable rivers and harbours, and many designs of railway bridge. Other large-scale projects also involved coal-, oil-, hydro- and nuclear-powered electricity generating stations⁶, and in addition to continued work on cranes and bulk handling equipment, a variety of maritime projects embraced work on dock gates, piers and jetties.

During the comparatively prosperous post-war years of the 1950s and 1960s, typical projects required large-scale consortium work, examples being the construction of a new generation of coal-fired power stations which incorporated heavy steel superstructures.⁷ The scale and plentiful nature of



Plate 1: General view from west of the Cartburn Shipyard, Greenock, showing the large number of mostly Arrol-built cranes serving the slipways. The cranes were subsequently demolished (A 61945, 1987, RCAHMS).

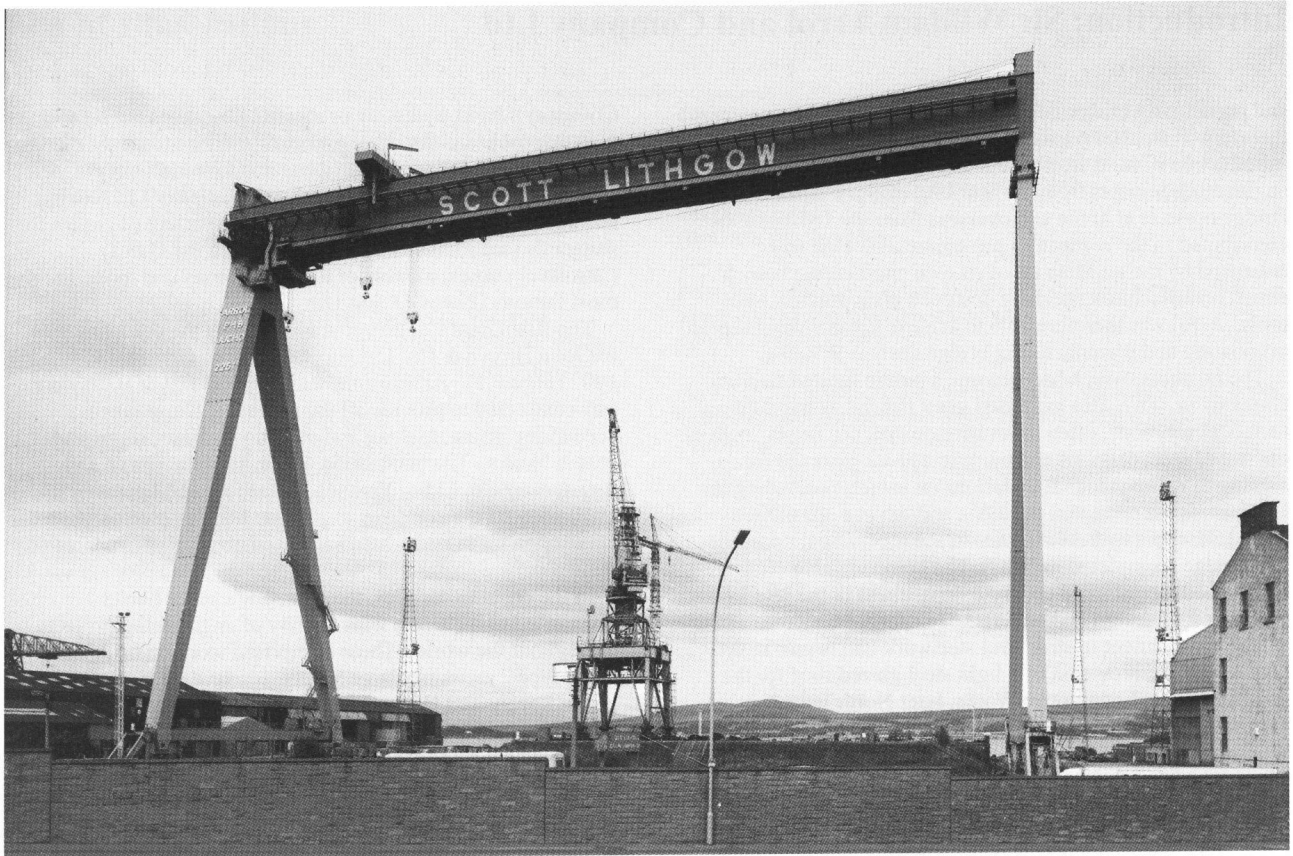


Plate 2: View from south of the 225-ton Goliath Crane at the Glen Shipyard, Port Glasgow, demolished in 1997 (B 45028, 1990, RCAHMS).

this work involved routine co-operation with competitors, without which the industry would have had insufficient capacity to meet demand. However, by the late 1960s, a decline in business heralded the beginning of a less certain phase, the industry experiencing sequences of consolidation and mergers.

First, in the late 1960s, the Industrial Reconstruction Corporation (IRC) began acquiring crane-making companies. Despite being predominantly a structural steel company, Arrol was of interest to IRC because of its crane division, and because its structural steel expertise and capacity allowed the company to compete in a market requiring much larger cranes. Sir William Arrol therefore became one of six crane-making companies operating under the wing of Clarke Chapman Ltd, who had already acquired the Glasgow-based boilermakers and engineers, John Thompson. Subsequent phases of re-organisation culminated in the formation of Northern Engineering Industries (NEI) in 1977, which was later to become NEI Thompson Ltd.

By the mid-1980s, the structural steel industry was experiencing a rapid decline and NEI Thompson chose to transfer manufacturing activity to England, the Dalmarnock Works closing in 1987, its fabricating and erecting shops being demolished shortly afterwards. Although now without its manufacturing arm, Sir William Arrol continued to operate as a design and consultancy business within NEI Thompson, the parent company itself being acquired in 1988 by Rolls Royce. Sir William Arrol is now based in The Templetons Business Centre, Bridgeton, Glasgow, operating within the Rolls Royce group as part of Clark Chapman Ltd.



Plate 3: View from east on top of the north-west end of the 225-ton Goliath Crane at the Glen Shipyard, Port Glasgow, with Greenock shipyards visible below (B 45032, 1990, RCAHMS).

Notes

1. For a brief introduction to iron and steel, see Gale, WKV, *The British Iron and Steel Industry: a technical history* (1967).
2. The existence of photographs of the new Montrose bridge in the collection is presumably in order to keep a visual note of other companies' projects.
3. See *Sir William Arrol and Company Ltd* (1909).
4. *Ibid.* p 216.
5. Thanks are due to Brian Newman of the University of Newcastle, who has been the principal source of information on Arrol's crane-building operations.
6. See RCAHMS *Catalogue of Scottish Power Collections* (1994). Sir William Arrol and Company were involved in

7. In the post-war period, advances in the design of coal- and oil-fired power station boilers involved their relocation from ground-mounted to suspended positions within power station buildings, necessitating the construction of huge steel supporting frames. The large size of such projects usually required consortia rather than single companies, and in addition to Arrol, examples of other participants included Alex Findlay, Redpath Dorman Long, and Cleveland Bridge Co.

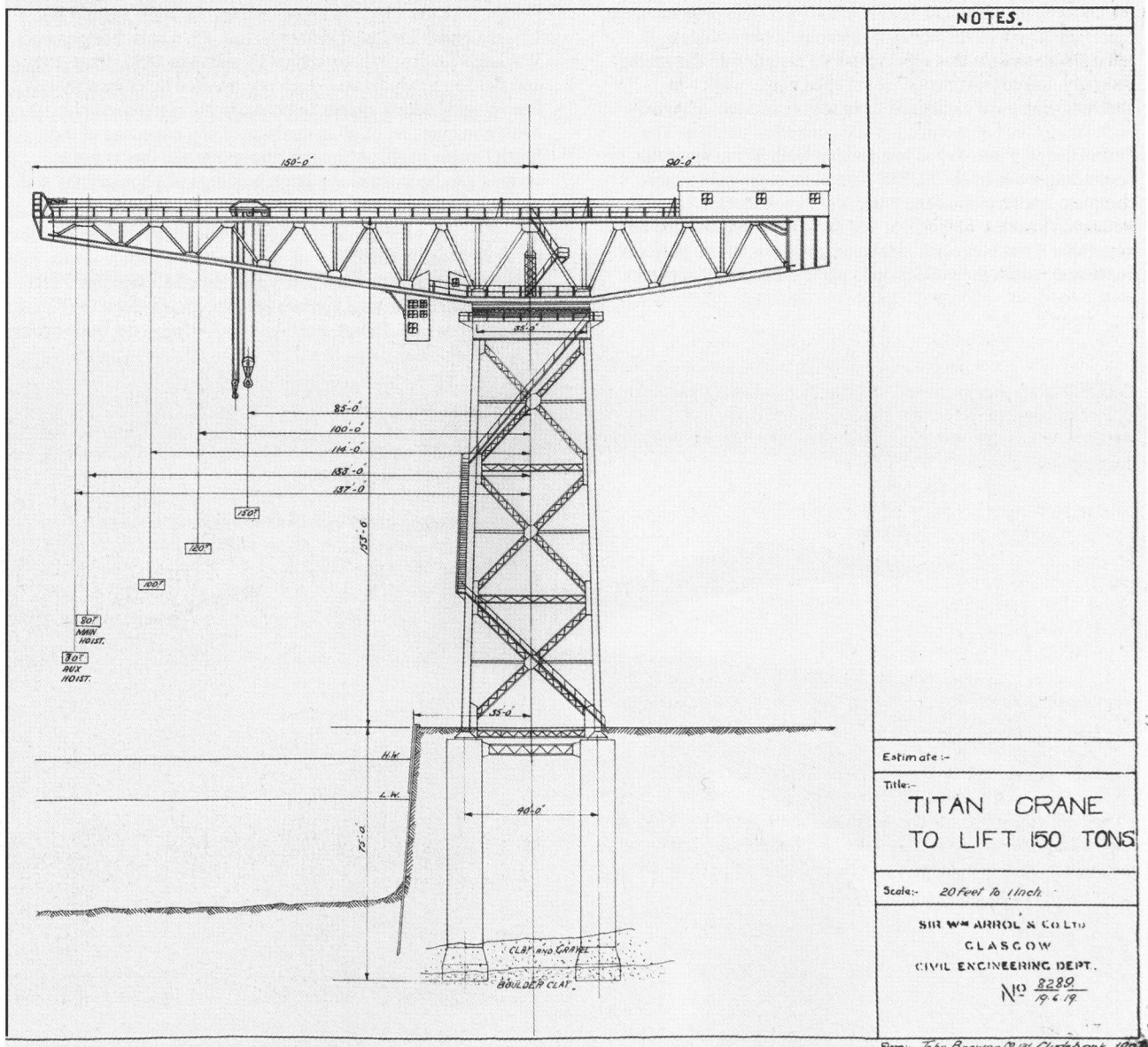


Figure 1: John Brown and Company, Clydebank, 150-ton crane, 1907. This was the first Giant Cantilever crane built by Sir William Arrol and Company.

Sir William Arrol Collection: Scottish Material

In 1987, a collection of approximately 4,000 items, the bulk of which consisted of photographs, was gifted to RCAHMS by Sir William Arrol and Company Ltd (then part of NEI Thompson Ltd) on the winding up of their operations at Dalmarnock Ironworks in Glasgow. Approximately 2,000 of the items related to Arrol's Scottish projects, the remainder covering work on a wide variety of structures and machinery throughout the world.

On the closure of the Dalmarnock Ironworks, the company moved to the Templeton Business Centre at Bridgeton in Glasgow, and continues to operate successfully on a design and consultancy basis only. The collection itself suffered from the unfortunate and randomising intervention of vandals and scrap merchants prior to its transfer to RCAHMS, and it has therefore taken several years to re-establish order and identify many of the images. It should also be noted that doubt remains about the true identity of a small proportion of the material, and some images, many of which bear more than one project number, may have been mis-identified. For this reason, RCAHMS would welcome any feedback or further information relating to the contents of the collection.

So far as is possible, the gazetteer that follows provides a detailed guide to the contents of the Scottish element within the collection. Although not all Arrol's Scottish projects were represented within the donated material, it nevertheless provides a valuable and representative insight into the scale, diversity and sophistication of the company's work. In addition, illustrative material from recent surveys of Arrol-built structures not included in the collection (such as The Forth Bridge, Plate 4) has been added both to illustrate the continuing work of RCAHMS, and to help provide a more complete impression of the company's contribution in Scotland (Plates 1-5, 7, 8, 15, 16, 18, 20). It should also be noted that a more general catalogue covering all the projects contained within the collection is planned, and will serve to

emphasise the extent to which Arrol was a company of international significance. Finally, the introductory text that follows contains references (in brackets) to specific sites contained within the gazetteer, quoting the number of the gazetteer entry (e.g. no. 70 refers to the Temple Bridge in Glasgow over the Forth & Clyde Canal).

The Scottish material within the collection covers all aspects of the company's work as contractors, builders and/or designers. Bridge building, with which Arrol is primarily identified, is represented by a wide range of projects dating from the late 19th century through to the mid-1980s. Of special note is a range of spectacular photographs showing various stages of the building of the Forth Road Bridge (no. 122, Plate 25), which was opened in 1964. At that time, Sir William Arrol and Company Ltd, as part of the ACD Bridge Company (a consortium involving the Cleveland Bridge and Engineering Company Ltd. and Dorman Long [Bridge and Engineering] Ltd), were the contractors for the bridge superstructure, being mainly responsible for pre-fabricating the towers and one of the suppliers of steelwork for the suspended structure.

Other bridges, such as the Dalginross Bridge, Comrie, Perthshire (no. 93, dated 1904, an Arrol-designed and built constrained-cantilever road bridge), the Caledonian Railway Bridge over the Clyde in Glasgow (no. 58, built 1905, Plate 13), the North Bridge, Edinburgh (no. 85, a road bridge over Waverley Station, reconstructed by Arrol in 1895, Plate 19), and the Tay Viaduct (no. 3) are represented by comparatively few images, which appear to be publication photographs. Most conspicuous of all is the lack of any coverage of the Forth Bridge itself. Although disappointing, this is not a serious gap because of the large holdings of photographs and documents held elsewhere, in particular by Imperial College, University of London, the City of Glasgow Archives, and in other NMRS collections.

In contrast, substantial series of 'work in progress' photo-



Plate 4: View from north (on top of Fife erection) of south parts of the Forth Bridge (B 3219, 1988, RCAHMS, item 121).

graphs exist for projects such as King's Bridge, Ballater Street, Glasgow (no. 69, photographs covering the period 1930-3, Plate 17), the lifting Temple Bridge, Bearsden Road, over the Forth & Clyde Canal (no. 70, 1932), replacement swing bridges on the Caledonian Canal at Muirton, Banavie, Aberchalder and Tomnahurich (nos. 37, 39, 35, and 38, dating from 1930s), detailed on-site photographs of the construction of the Dalgrain swing bridge over the Forth & Clyde Canal near Falkirk (no. 111, 1933-4), and the modern Raith Cottage M74 motorway bridge near Bothwell, Lanarkshire (no. 81, in the 1970s). Major structural engineering projects are not so substantially represented, again with only one or two images of the William Beardmore & Co. Ltd Dalmuir Works (no. 47, 1903) and lesser projects such as the Scottish Dye Works buildings at Grangemouth (no. 116, 1927).

There are, however, interesting sequences of progress photographs of the Rosyth Dockyard floating caissons (no. 32, 1912-17, Plate 10), which represented a minor diversification into shipbuilding work, and posed new challenges for the company. Material on Rosyth also includes a photograph dated 1917 of the 250-ton crane built by the company for the Admiralty (Plate 11). The theme of cantilever cranes is continued in a series of photographs showing repairs in progress on the James Watt Dock 150-ton crane in Greenock (no. 99, in 1961), which had been built by Arrol in 1917. There is also a large and important range of photographs of crane and slipway construction at John Brown's Shipyard, Clydebank (no. 24, late 1950s), showing details of the yard which had continued working whilst the reconstruction was under way. Images of power stations are represented, and include Stonebyres, Lanarkshire (no. 83, 1926/7, hydro) for which Arrol built the pipelines, power houses and tunnels, the building of the pipeline for the Glenlee Power Station, Kircudbrightshire (no. 43, mid-1930s), specialist work carried out at the Dounreay fast-breeder nuclear reactor site (no. 12, late 1960s), and a series of on-site progress photographs of the building of the pipeline, steelwork and cranes for the Loch Sloy power station hydro scheme in the 1940s (Plate 6).

The Company's Scottish dock and harbour work is, in addition to other examples, represented by a series of photographs showing Arrol's 'box flap' gate installation at Elderslie Dock, Glasgow (no. 22, 1932/3). There are also a significant number of internal views of Arrol's own Dunn Street works (no. 67) showing details of the shop floor as well as various mechanical engineering projects being undertaken by the Company. Within the gazetteer listing, most of these have been attached to the Dunn Street site unless the photograph can be confidently linked to Parkhead Crane Works.

The collection also contains drawings (largely general arrangements) relating to the giant cranes built by the company. The drawings relate to surviving crane examples such as that at John Brown's shipyard, Clydebank (no. 24, 1907, 150 tons capacity, Figure 1), Fairfield (now Kvaerner), Govan (no. 73, 1911, 200 tons, see Plate 18), James Watt Dock, Greenock, (no. 99, 1916/17, 150 tons), and Barclay Curle at Whiteinch, Glasgow (no. 78, 1920, 150 tons). There are also drawings of cranes that have been recently demolished, such as the two at the HM Dockyard, Rosyth (no. 32, 1916/17, 250 tons and 1918, 100 tons). These form part of an important block of records on cranes within the collection. There is also material relating to the many crane contracts completed in England (e.g. Portsmouth, Barrow in Furness and Tyneside), and abroad, the details of which will be included in the forthcoming general catalogue.

In general, the gazetteer contains references only to the work of Sir William Arrol and Company Ltd. It should, however, be noted that in some instances, the extent of the company's involvement cannot be ascertained purely from the photographic material, especially for the smaller projects not listed in the published works available to the compiler. In some instances, it is also possible that records may relate to projects completed by competitors, or situations in which

Arrol was involved in only a very small part of a larger enterprise. In addition, as has already been mentioned, the collection does have significant gaps where there is no material for some of the more obvious large bridge and structural engineering projects undertaken by the company.

Despite this, the records in this collection are representative of the range of work carried out by the company. The importance of the material lies in the high quality, detailed content and visual impact of many of the images. Indeed, the immense significance of the company, and of the work that it has completed, suggests that the collection should in the future form the basis of a major research project devoted to recording in detail the works of Sir William Arrol and Company.

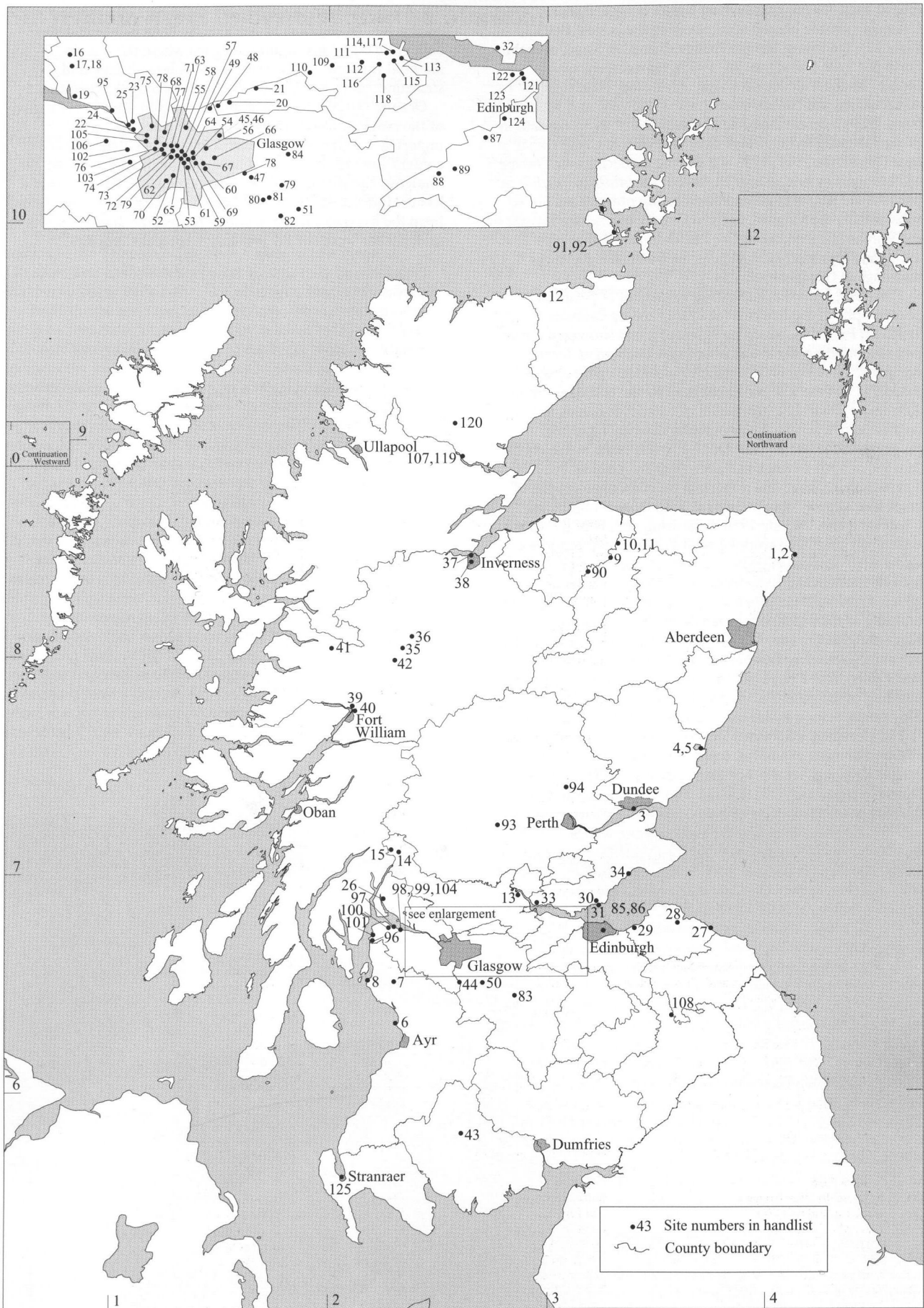


Figure 2: Map of Scottish sites within the Collection.

Index of Scottish Structures Included in the Collection (see also map opposite)

No.	Name of Structure	Class of Structure	Approx. Date	Council Area
Aberdeenshire				
1.	Peterhead Harbour, Bridge Street, Bridge	Lifting Bridge	1952	Aberdeenshire
2.	Peterhead Harbour, Dry Dock	Dry Dock	1953	Aberdeenshire
Angus				
3.	Dundee, Tay Bridge	Railway Bridge	ND	Angus
4.	Montrose, New Bridge	Road Bridge	1930	Angus
5.	Montrose, South Esk Viaduct	Railway Bridge	1920	Angus
Ayrshire				
6.	Troon, Ailsa Shipyard	Shipyard	ND	South Ayrshire
7.	Glengarnock, Coal Pits	Coal Mines	ND	North Ayrshire
8.	Hunterston 'A' Nuclear Generating Station	Power Station	1961	North Ayrshire
Banffshire				
9.	Craigellachie New Bridge	Road Bridge	1970	Moray
10.	Boat O'Brig, New Bridge	Road Bridge	1956	Moray
11.	Boat O'Brig, Old Bridge	Road Bridge	1956	Moray
Caithness				
12.	Dounreay Nuclear Power Establishment	Scientific Research Establishment	1968	Highland
Clackmannanshire				
13.	Alloa Bridge	Railway Bridge	ND	Clackmannan
Dunbartonshire				
14.	Inveruglas, Loch Sloy Power Station (Hydro-electric)	Power Station & Pipeline	1949	Clydebank & Dumbarton
15.	Loch Sloy Dam	Dam	1949	Clydebank & Dumbarton
16.	Balloch, Lomond Bridge	Road Bridge	ND	Dumbarton & Clydebank
17.	Bonhill, New Road Bridge	Road Bridge	1986	Dumbarton & Clydebank
18.	Bonhill, Old Road Bridge	Road Bridge	1961	Dumbarton & Clydebank
19.	Dumbarton, Shipyard	Shipyard	1920	Dumbarton & Clydebank
20.	Kirkintilloch, Townhead, Forth & Clyde Canal Bridges	Swing Bridge	1932	Dumbarton & Clydebank
21.	Twechar, Forth & Clyde Canal, Bridge	Lifting Bridge	1960	Dumbarton & Clydebank
22.	Clydebank, Elderslie Shipyard	Shipyard	1932	Dumbarton & Clydebank
23.	Clydebank, Kilbowie, Forth & Clyde Canal, Bridge	Swing Bridge	1930	Dumbarton & Clydebank
24.	Clydebank, John Brown's Shipyard	Shipyard, wharf, cranes etc.	1947-58	Dumbarton & Clydebank
25.	Dalmuir, Wm Beardmore & Co, Shipyard	Shipyard	ND	Dumbarton & Clydebank
26.	Gare Loch, Clyde Submarine Base	Naval Establishment	1970	Dumbarton & Clydebank
East Lothian				
27.	Torness Nuclear Power Station	Power Station	1980	East Lothian
28.	East Linton, Tyne Bridge	Road Bridge	1927	East Lothian
29.	Cockenzie Generating Station (Coal-fired)	Power Station	1964	East Lothian
Fife				
30.	Burntisland, Aberdour Road, Aluminium Works	Alumina Works	1932	Fife
31.	Burntisland, Dock Gates	Dock Gates	1980	Fife
32.	Rosyth, HM Dockyard	Dockyard, cranes etc.	1917-58	Fife
33.	Longannet Power Station (Coal-fired)	Power Station	1968	Fife
34.	Methil Harbour	Dock Gate	1925	Fife
Inverness-shire				
35.	Aberchaldy, Caledonian Canal, Swing Bridge	Swing Bridge	1932	Highland
36.	Fort Augustus, Caledonian Canal, Swing Bridge	Swing Bridge	1932	Highland
37.	Inverness, Caledonian Canal, Muirtown Swing Bridge	Swing Bridge	1938	Highland
38.	Inverness, Caledonian Canal, Tomnahurich Swing Bridge	Swing Bridge	1937	Highland
39.	Banavie, Caledonian Canal, Swing Bridge	Swing Bridge	1935	Highland
40.	Fort William, Lochaber Aluminium Smelter	Aluminium Works	1929	Highland
41.	Glen Quich, Road Bridge	Road Bridge	1955	Highland
42.	Laggan Swing Bridge, Caledonian Canal	Swing Bridge	1932	Highland
Kirkcudbrightshire				
43.	Glenlee Power Station (Hydro-electric)	Power Station and Pipeline	1933	Dumfries & Galloway
Lanarkshire				
44.	Blantyre, Railway Bridges	Railway Bridges	1931	South Lanarkshire
45.	Powburn Bridge [M74]	Road Bridge	1967	South Lanarkshire
46.	Maryville Bridge [M74]	Road Bridge	1967	North Lanarkshire
47.	Mossend, Wm Beardmore & Co Ltd, Steelworks	Steel Works	ND	North Lanarkshire
48.	Glasgow Bridge, Forth & Clyde Canal	Swing Bridge	ND	City of Glasgow
49.	Hungryside Bridge	Lifting Bridge	ND	City of Glasgow
50.	Motherwell, Colville's Pipe Bridge	Pipe Bridge	ND	North Lanarkshire
51.	Motherwell, Ravenscraig Works	Steel Works	1956-68	North Lanarkshire
52.	Glasgow, Pollokshaws Road Bridge	Road Bridge	1930	City of Glasgow
53.	Glasgow, 153-239 Elliot Street, Engineering Works	Engineering Works	1944	City of Glasgow
54.	Glasgow, Albert Bridge	Road Bridge	1870	City of Glasgow
55.	Glasgow, Balmore Road, Lambhill Bridge	Lifting Bridge	1925	City of Glasgow

56.	Glasgow, Blochairn Road, Blochairn Steel Works	Steel Works	1922	City of Glasgow
57.	Glasgow, Central Station Railway Bridge	Railway Bridge	1966	City of Glasgow
58.	Glasgow, Central Station Railway Bridge	Railway Bridge	1905	City of Glasgow
59.	Glasgow, Custom House Quay	Quay	1945	City of Glasgow
60.	Glasgow, Dalarnock Road, Dalarnock Power Station	Power Station	ND	City of Glasgow
61.	Glasgow, General Terminus Quay	Quay	ND	City of Glasgow
62.	Glasgow, Harbour Tunnel, Tunnel St to Plantation Place	Lock Gates	1976	City of Glasgow
63.	Glasgow, Kelvin Hall	Public Building	1930	City of Glasgow
64.	Glasgow, Union Railway Bridge	Railway Bridge	1902	City of Glasgow
65.	Glasgow, Stobcross Quay, Finnieston Cantilever Crane	Giant Cantilever Crane	ND	City of Glasgow
66.	Glasgow, Rigby Street, Parkhead Crane Works	Crane Works	1969	City of Glasgow
67.	Glasgow, Dunn Street, Sir William Arrol's Works (Dalarnock Ironworks)	Engineering Works	1969	City of Glasgow
68.	Glasgow, Anniesland, Great Western Road, Railway Bridge	Railway Bridge	ND	City of Glasgow
69.	Glasgow, Ballater Street, King's Bridge	Road Bridge	1932	City of Glasgow
70.	Glasgow, Bearsden Road, Forth & Clyde Canal, Temple Bridge	Lifting Bridge	1932	City of Glasgow
71.	Glasgow, Castlebank Street Railway Bridge	Railway Bridge	1967	City of Glasgow
72.	Glasgow, 18 Clydebrae Street, Govan Graving Docks	Graving Docks	1960	City of Glasgow
73.	Glasgow, Govan, Fairfield Shipyard & Engine Works	Shipyard	1970	City of Glasgow
74.	Glasgow, Govan, Giant Cantilever Crane	Giant Cantilever Fitting-out Crane	1911	City of Glasgow
75.	Glasgow, Great Western Road, Boulevard Bridge	Lifting Bridge	1930	City of Glasgow
76.	Glasgow, Linthouse Engine Works, Shipyard	Shipyard	1926	City of Glasgow
77.	Glasgow, Meadowside Quay, Meadowside Granaries	Granaries	ND	City of Glasgow
78.	Glasgow, North British Diesel Engine Works	Giant Cantilever Crane	1962	City of Glasgow
79.	Glasgow, Plantation Quay	Quay	ND	City of Glasgow
80.	Bothwell Sewage Works	Sewage Works	ND	North Lanarkshire
81.	Raith Cottage, Bridge [M74]	Road Bridge	1967	North Lanarkshire
82.	Ross Junction Bridge, over M74	Railway Bridge	1965	North Lanarkshire
83.	Stonebyres Power Station & Pipeline	Power Station [Hydro-electric]	1927	South Lanarkshire
84.	Airdrie, Deedes Street Bridge	Railway Bridge	ND	North Lanarkshire
Midlothian				
85.	Edinburgh, North Bridge	Road Bridge	1909	City of Edinburgh
86.	Edinburgh, Waverley Station	Railway Station	1909	City of Edinburgh
87.	Mid Calder, Road Bridge	Road Bridge	1924	West Lothian
88.	Addiewell, Shale Bing	Shale-oil Works	1909	West Lothian
89.	Morrispool Road Bridge	Road Bridge	ND	West Lothian
Moray				
90.	Blacksboat Road Bridge	Road Bridge	ND	Moray
Orkney				
91.	Hoy, Lyness, Royal Navy	Oil Terminal	19130	Orkney Islands
92.	Hoy, Lyness, Royal Navy Oil Terminal	Oil Tanks	1914+	Orkney Islands
Perthshire				
93.	Dalginross Bridge	Road Bridge	ND	Perthshire & Kinross
94.	Caputh, Victoria Bridge	Road Bridge	ND	Perthshire & Kinross
Renfrewshire				
95.	Erskine Bridge	Road Bridge	1967	Renfrewshire
96.	Greenock Dock	Dock	1966	Inverclyde
97.	Greenock, Garvel Dock	Dock	1932	Inverclyde
98.	Greenock, James Watt Dock	Dock	1963	Inverclyde
99.	Greenock, James Watt Dock	Giant Cantilever Crane	1960	Inverclyde
100.	Greenock, Scott's Engine Works	Engine Works	1911	Inverclyde
101.	Inverkip, Power Station and Jetty	Power Station [Oil-fired]	1975	Inverclyde
102.	White Cart Bridge [M8]	Road Bridge	1967	Inverclyde
103.	Paisley, White Cart Bridge	Road Bridge	ND	Renfrewshire
104.	Port Glasgow, Glasgow Road, Railway Bridge	Railway Bridge	1966	Inverclyde
105.	Renfrew, Braehead Power Station	Power Station	1949	Renfrewshire
106.	Selvieland Farm, Access Bridge	Road Bridge	1931	Renfrewshire
Ross & Cromarty				
107.	Bonar Bridge, New Bridge	Road Bridge	1973	Highland
Roxburghshire				
108.	Drygrange Bridge (New)	Road Bridge	1972	Scottish Borders
Stirlingshire				
109.	Bonnybridge, Forth & Clyde Canal Swing Bridge	Swing Bridge	ND	Falkirk
110.	Castleary, Forth & Clyde Canal, Swing Bridge	Swing Bridge	1928	Falkirk
111.	Dalgrain, Forth & Clyde Canal Swing Bridge	Swing Bridge	1933	Falkirk
112.	Camelon Road Swing Bridge, Forth & Clyde Canal	Swing Bridge	1956	Falkirk
113.	Grangemouth, Refinery	Oil Refinery	1923	Falkirk
114.	Grangemouth, Canal Street, Bridge	Lifting Bridge	ND	Falkirk
115.	Grangemouth, Harbour and Docks, Swing Bridge	Swing Bridge	1971	Falkirk
116.	Grangemouth, Scottish Dyes	Dyeworks	1927	Falkirk
117.	Grangemouth, South Bridge Street, Junction Basin Swing Bridge	Swing Bridge	ND	Falkirk
118.	Polmont, Westquarter, Nobel Works, Union Canal Swing Bridge	Swing Bridge	1930	Falkirk

Sutherland				
119.	Bonar Bridge, Old Bridge	Road Bridge	1890	Highland
120.	Lairg Power Station	Power Station [Hydro-Electric]	1957	Highland
West Lothian				
121.	Forth Bridge	Railway Bridge	1962	City of Edinburgh
122.	Forth Road Bridge	Road Bridge	1960	City of Edinburgh
123.	Queensferry, Hawes Pier, White Light	Beacon	1950	City of Edinburgh
124.	Birdsmill Railway Bridge	Railway Bridge	1970	West Lothian
125.	Stranraer, Ross Pier, Roll-on Roll-off Bridge	Road Bridge to car ferry	1979	Dumfries & Galloway

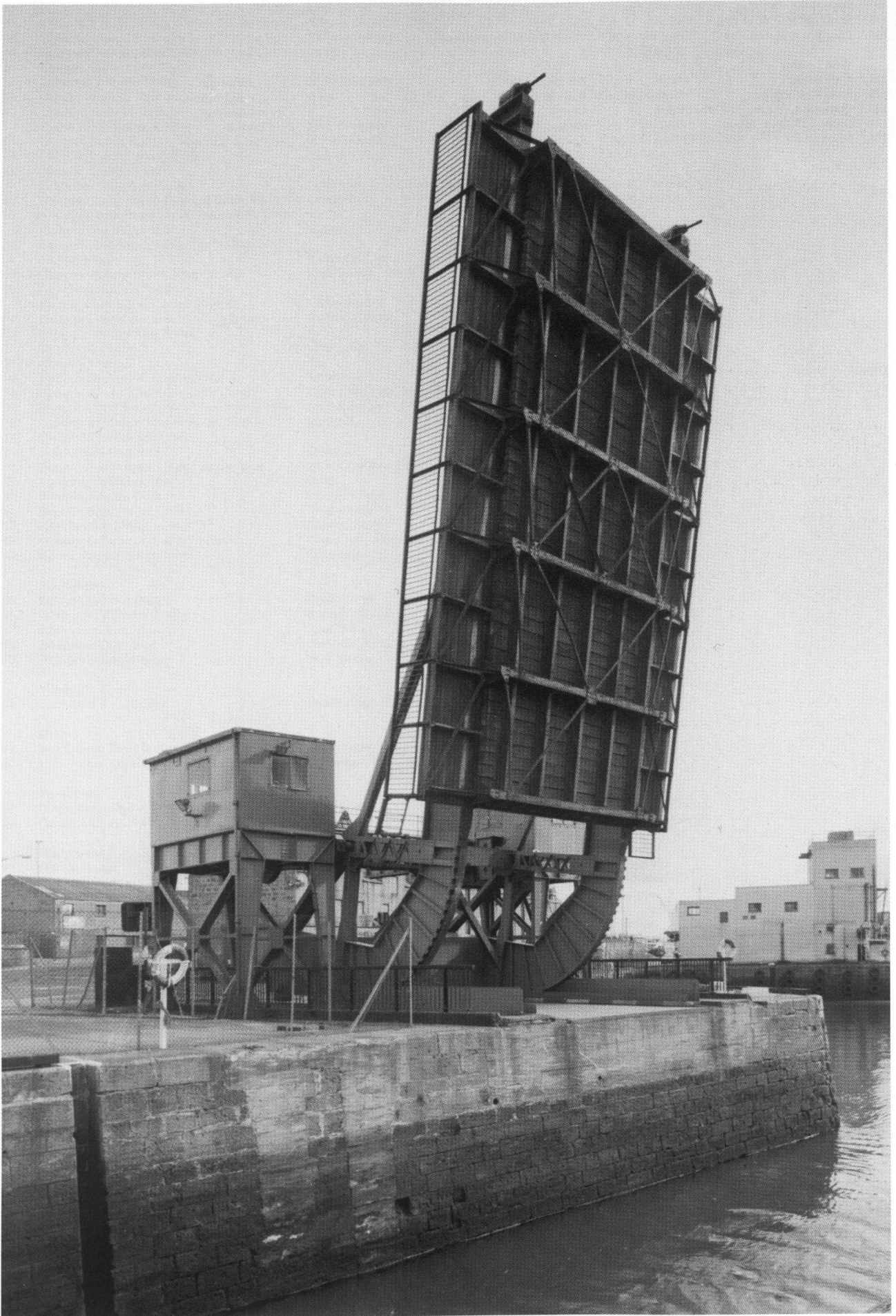


Plate 5: View from north of Peterhead Harbour lift bridge (built in 1953) in open position (C 34928, 1994, RCAHMS, item 1).

Editorial Notes

The list of archive and site gazetteer that follows is arranged alphabetically by old Scottish **county** (reflecting the administration arrangements at the time of the bulk of the projects), and is subsequently listed by **parish**. This is followed by, **site name**, the current **Council**, the National Monuments Record unique **site number** and, in square brackets, the **National Grid Reference** (given to either 4, 6 or 8 figures, depending on the possible accuracy of map location). A description of each item or group of items is then given. It should be noted that the provision of a grid reference does not guarantee that the structure survives intact at the location given, some having been removed or replaced in recent years (e.g. Victoria Bridge, Caputh).

For each entry in the gazetteer, a site classification is given (after the grid reference) in order to provide standardised information on the nature of the site. It is, however, important to note that Arrol's involvement may not necessarily relate to each site as a whole, and may refer merely to a sub-contract, or consortium-based work. If more information is required, it is therefore advisable to refer to the captions of the photographs and drawings that follow.

The reference number of the boxes in which the photographic prints are stored follows on from the locational information. This is then followed by the Arrol project number in square brackets comprising a letter and a number (where known). The project numbers appear to relate broadly to the nature of the 'jobs' being undertaken, 'B' prefixed numbers, for example, usually relating to canal swing bridges.

Photographs are listed with their number (or sequences of numbers) and appropriate captions, which includes verbatim elements in single quotes. Any further comments may relate to the batch of photographs as a whole, or to an individual photograph. This often includes the name of the company responsible for taking the photographs, which may have copyright implications.

Where drawings exist, they are listed under the relevant site entry with the drawing collections number ('DC' number), description, date, reference, scale, medium and sheet size in brackets (in millimetres, height then width). The largest batches of drawings relate to giant cantilever cranes, and Arrol's Dalmarnock Ironworks in Glasgow.

Also received as part of the collection was a selection of published material relating to the work of the company. A list of this material, which is generally not site-specific, has been provided. In addition, in order to assist with some of the terms used in the captions, a short glossary follows the gazetteer.

GAZETTEER

ABERDEENSHIRE

PETERHEAD

1. Peterhead Harbour, Bridge Street, Bridge [Plate 5]

Aberdeenshire Council
NK14NW 142 [NK 1374 4602]

Lifting Bridge

Note: built for Peterhead Harbour Trustees

Box 4 [A20]

B 90817 PO: Control Cabin

d: 'March 1953'

B 90818 PO - B 90827 PO: General views of bridge in open and closed positions

d: 'October 1952' & 'March 1953'

B 90828 PO: Quadrant girder on site during construction

d: '1952'

2. Peterhead, Harbour, Dry Dock

Aberdeenshire Council
NK14NW 147 [NK 1367 4611]

Dry Dock

Note: clients, Peterhead Harbour Trustees, 'Job No. 789/50'

Box 12 [H9]

C 87101 PO: 'Keel masonry with Keel Castings embedded.'

d: 'March 1953'

C 87100 PO; C 87102 PO - C 87103 PO: During assembly, 'shows Dock side of gate.' and 'Sea side of gate keel'

d: 'March 1953'

C 87098 PO - C 87099 PO: General views of 'welded "box" gates during assembly, end of gate shows keel timber.'

d: 'March 1953'

ANGUS

DUNDEE

3. Dundee, Tay Bridge

City of Dundee/ North-East Fife Council
NO32NE 11 [NO 390 292]

Railway Bridge

Box 7 [E4]

B 91886 PO: 'New Tay Viaduct and Esplanade Station...'.', general view

d: late 19th century

B 91885 PO: General view

n.d.

MONTROSE

4. Montrose, New Bridge

Angus Council
NO75NW 55 [NO 7093 5712]

Road Bridge

Note: photographed by Dux Engraving of Glasgow

Box 10 [F31]

B 93396 PO - B 93402 PO: Views of concrete bridge

d: c.1930

Box 19 [F31]

C 87967 PO: View of concrete bridge

d: c.1930

5. Montrose, South Esk Viaduct

Angus Council
NO75NW 39 [NO 7074 5705]

Railway Bridge

Box 7 [E16]

B 91966 PO: General view

n.d. [pre-1928]

AYRSHIRE

DUNDONALD

6. Troon, Ailsa Shipyard

South Ayrshire Council
NS33SW 25 [NS 309 313]

Shipyard

Box 12 [H3]

C 87096 PO - C 87097 PO: Elevations of box-flap dock gate in closed position

n.d.

KILBIRNIE

7. Glengarnock, Coal Pits

North Ayrshire Council
NS35SW 20 [NS 3 5]

Coal Mines

Box 20 [S4]

C 88063 PO: 'Glengarnock Coal Pits' General view [shaft sinking at Stevenston, Ayrshire?]

n.d. [early 19th century?]

Note: mounted on cardboard

WEST KILBRIDE

8. Hunterston 'A', Nuclear Electricity Generating Station

North Ayrshire Council
NS15SE 28 0 [NS 18 51]

Power Station

Note: specialist work by Arrol

Box 22

C 88284 PO/CN: 'Job 2088 Hunterston ?Internal turntables (Charging m/c[machinery])' in Arrol's Dalmarnock Works

d: 1961

BANFFSHIRE

ABERLOUR

9. Craigellachie New Bridge

Moray Council
NJ24NE 26 [NJ 2865 4518]

Road Bridge

Note: 'job No. 2356'

Box 11 [F65]

C 87001 PO - C 87004 PO: Construction site, showing temporary bracing and assembly position and 'Launching rollers with levelling shims under'

d: '12 August 1970' & n.d.(C87001/PO)

C 87005 PO: General view of completed bridge

d: '12 August 1970'

BOHARM

10. Boat O' Brig, New Bridge

Moray Council
NJ35SW 18 0 [NJ 3184 5173]

Road Bridge

Note: Banff County Council

C 57497 - C 57498: View along bridge, looking towards tollhouse and north-west

d: '1956'

[Negatives only]

C 57493 - C 57496; C 57499 - C 57500: Views

d: '1956'

[Negatives only]

Box 11 [F47]

B 93431 PO: Deck looking to south bank

d: '30 July 1956'

B 93430 PO; B 93432 PO - B 93434 PO; B 93440 PO - B 93443 PO; B 93449

PO: General views of bridge

d: 1956

B 93428 PO - B 93429 PO; B 93435 PO - B 93439 PO: Views of bridge under construction

d: '27 July 1956' & '4 September 1956'

B 93444 PO - B 93448 PO: View, opening Ceremony

d: 1956

11. Boat O' Brig, Old Bridge

Moray Council
NJ35SW 18 1 [NJ 318 517]
Road Bridge
Box 11 [F47]

B 93422 PO - B 93424 PO: Views of original suspension bridge being dismantled

d: '6 May 1956' & '7 May 1956'

B 93425 PO - B 93427 PO: 'Looking through Rothes arch with deck section on carriage'

d: 7-9 May 1956

CAITHNESS

REAY

12. Dounreay Nuclear Power Establishment

Highland Council
NC96NE 78 [NC 98 67]

Scientific Research Establishment

Note: Arrol specialist work only

Box 17 [L61]

C 87811 PO: Foundations for turbo generator- steam box end, in Arrol's Works, Arrol Job No. 2071

d: 1968

Note: photographed by W Ralston, Glasgow

C 87806 PO - C 87810 PO: Turbo block construction, Arrol Job No. 2071

d: 1968

Note: photographed by 'Commercial' photo dept, Dounreay Experimental Reactor Establishment

CLACKMANNANSHIRE

ALLOA

13. Alloa Bridge

Clackmannan Council
NS89SE 79 [NS 8627 9156]

Railway Bridge

Box 21 [A11]

C 88259 PO: 'South Alloa Bridge, Throsk'. Newspaper cutting mounted on board showing bridge after accident

n.d.

DUNBARTONSHIRE

ARROCHAR

14. Inveruglas, Loch Sloy Hydro-Electric Generating Station [Plate 6]

Dumbarton & Clydebank Council
NN30NW 7 [INN 3210 0981]

Power Station

Note: Sir William Arrol and Company undertook specialist work only including the pipelines, steelwork and cranes for the Power Station

C 62200: Plans, Elevations. Copy of 'NSEB Loch Sloy Project Steel Pipe Line. Arrangement for operating Pipe Transporter below blocks...'

s & d: 'Sir William Arrol and Company Ltd, Glasgow, CE department, 'Oct. 13 1948'

Dr No. 17244, Scale: 1/8" to 1ft

Box 19 [P6]

C 87975 PO: 'Erection crane...'

d: 'Oct. 1947'

C 87998 PO: 'Loch Sloy Pipe Line. Base of Anchor Block...in Construction...'

d: '13/1/49'

C 87993 PO: 'Loch Sloy Pipe Line. Erection of 10'0" Pipe in south Portal...'

d: '9/11/48'

C 88009 PO: 'Loch Sloy Pipe Line. General View of Bifurcation...'

d: '17/10/49'

C 87986 PO; C 87992 PO; C 87994 PO - C 87997 PO; C 88002 PO; C 88006 PO - C 88008 PO: 'Loch Sloy Pipe Line' General views of Pipe Line...'

d: '10/6/48' - '15/9/49'

C 88003 PO: 'Loch Sloy Pipe Line' General view of Valve House

d: '12/8/49' & '9/6/49'

C 88001 PO; C 88004 PO - C 88005 PO; 'Loch Sloy Pipe Line Pipe Transporter from ...Anchor Block...'

d: '12/8/49'

C 87989 PO: 'Loch Sloy Pipe Line Rock fill for Inclined Railway between Anchor Blocks...'

d: '10/6/48'

C 88011 PO: 'Loch Sloy Pipe Line Valves at Bifurcation...'

d: '17/1/50'

C 87988 PO: 'Loch Sloy Pipe Line. View of [Pipe Line] Anchor Block...'

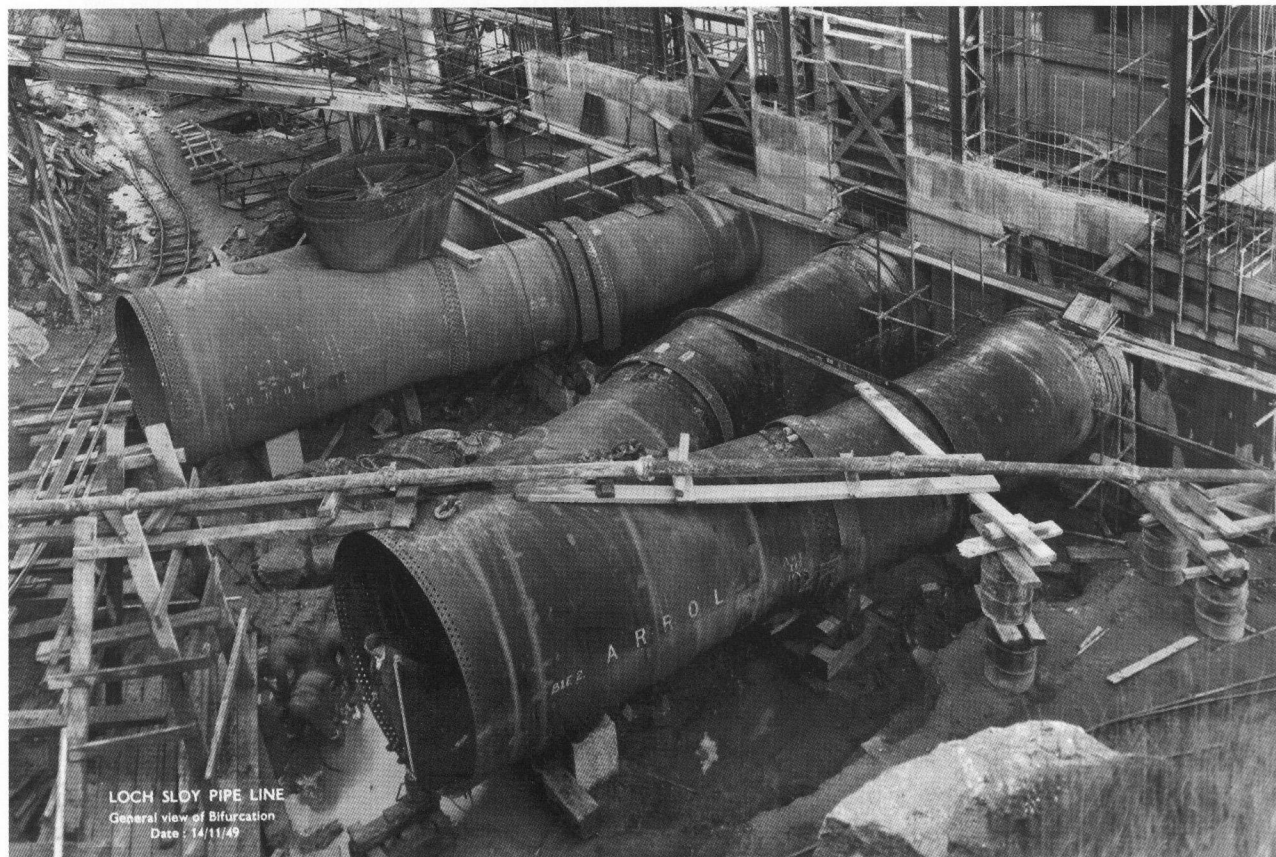
d: '10/6/48'

C 87991 PO: 'Loch Sloy Pipe Line. View showing Expansion Joints of Pipe Line No. 2 Anchor Block'

d: '15/7/48'

C 87987 PO: 'Loch Sloy Pipe Line. View showing Pipe Line between Power Station and Bridge...'

d: '10/6/48'



LOCH SLOY PIPE LINE
General view of Bifurcation
Date: 14/11/49

Plate 6: Loch Sloy Pipeline: view of penstock bifurcation, November 1949. Arrol secured the contracts for the pipelines and hillside grading, as well as the steelwork and cranes for the Power Station (C 88010 PO, item 14).

C 87999 PO: 'Loch Sloy Pipe Line general view of Pipe Line from...Anchor Block.'
d: '12/5/49'
C 88000 PO: 'Loch Sloy Pipe Line valves on A & P Pipe Lines...'
d: '12/5/49'
C 88017 PO: 'Loch Sloy Pipe Line General view looking west...'
d: 10/2/49
C 87984 PO: 'Loch Sloy Pipeline General view of Pipe Line excavation'
d: '25/3/48'
C 87969 PO: 'Loch Sloy Pipeline from Anchor block No. 3'
d: '31/7/47'
C 87971 PO: 'Loch Sloy Pipeline from Inversnaid'
d: '31/7/47'
C 87970 PO: 'Loch Sloy Pipeline from Twin Portal looking down'
d: '31/7/47'
d: '31/7/47'
C 87972 PO - C 87973 PO: 'Loch Sloy Pipeline' general views, above Power Station
d: '29/9/47'
C 88014 PO - C 88016 PO: 'Loch Sloy Power House', general views
d: 1947, '25/3/48' & '12/5/49'
C 87985 PO: 'Loch Sloy Power House and Pipe Line showing 4 Pipe Lines entering Power House'
d: '25/3/48'
C 88012 PO; C 88013 PO: 'Loch Sloy Project. Glen Falloch Syphon Pipe...'
d: '7/11/50'
C 87968 PO: 'Welded crane girder North of Scotland Hydro Electric Board Loch Sloy Project (Power Station)...Job No. 1140'
d: '22/10/47'
C 87974 PO; C 87976 PO - C 87983 PO: Construction site, pipeline
d: 1947
C 87990 PO: Winding gear
d: 1948

15. Loch Sloy Dam
Dumbarton & Clydebank Council
NN21SE 2 [NN 2892 1111]

Dam
Note: designed by James Williamson, main contractors Balfour Beatty & Company

Box 20 [P6]
C 88054 PO: Looking south-west along buttresses of completed dam
n.d.
C 88055 PO: Looking south-west along buttresses of completed dam, gate house above main intake to left of picture
n.d.
C 88057 PO: Spillway
n.d.

BONHILL

16. Balloch, Lomond Bridge
Dumbarton & Clydebank Council
NS38SE 24 [NS 3915 8174]

Road Bridge
Box 10 [F19]
B 93378 PO: Lomond Bridge, general view on completion [publication photograph]
n.d.

17. Bonhill, New Road Bridge [Plates 7 and 8, RCAHMS]
Dumbarton & Clydebank Council
NS37NE 34.0 [NS 3956 7988]

Road Bridge
(see site 18)
DC 26131: Plan, section
Insc: 'Erection of steelwork'.
s & d: 'CM' '7/5/86'.
Ref.: 20178 / 1 of 2 Scale: 1 : 100
Ink (840 x 1196)
DC 26132: Sections, elevations.
Insc: 'Steelwork erection'.
s & d: 'JMC' '21/10/86'
Ref.: 20178 / 2 of 2 Various scales used
Ink (840 x 1196)

18. Bonhill, Old Road Bridge
Dumbarton & Clydebank Council
NS37NE 34.1 [NS 3956 7989]

Road Bridge
(see site 17)
Note: Dumbarton County Council, 'Job No. 2840 and '2840.41'
Box 11 [F52]
B 93450 PO - B 93455 PO: 'Bonhill Bridge A82', general view and survey and repair details noted
d: '12 September 1961' & '13 October 1961'

DUMBARTON

19. Dumbarton, Shipyard
Dumbarton & Clydebank Council
NS37NE 47.1 [NS 397 750]

Shipyard
Note: client, Alex McMillan and Sons, Dumbarton
Box 14 [K3]
C 87387 PO - C 87398 PO: Views of Dock walls, slips and cranes
d: '1920s

KIRKINTILLOCH

20. Kirkintilloch, Townhead, Forth & Clyde Canal Bridges
Dumbarton & Clydebank Council
NS67SE 46 [NS 654 738]

Swing Bridge
Box 6 [B12]
B 91781 PO - B 91785 PO: 'Kirkintilloch Swing Bridge' north and south abutment, cofferdam, temporary bridge
d: '20/12/32'
B 91780 PO: 'Kirkintilloch Swing Bridge...south parapet of south abutment removed. north leaf of old bridge stripped ready for lifting.' Distant view of old bascule bridge
d: '4/10/32'

21. Twechar, Bridge, Forth & Clyde Canal
Dumbarton & Clydebank Council
NS67NE 18 [NS 6994 7592]

Lifting Bridge
Note: 'Job 2235-'39, 2235-'40'
Box 4 [A31]
B 90848 PO: 'Twechar opening bridge, storage area for steelwork...between crane and roadway...'
d: '8th Aug. 1960'
B 90849 PO: 'Twechar opening bridge. View of crane...after earth slip...'
d: '8th Aug. 1960'
B 90850 PO - B 90851 PO: 'Twechar opening bridge cofferdam'
d: '8th Aug. 1960'
B 90852 PO: '...Bridge structure in erection position...'
d: '12 Sept. 1960'
B 90853 PO: '...Ballast box in erection position'
d: '12 Sept. 1960'
B 91591 PO: '... Arrol Werkspoor operating machinery'
d: '12 Sept. 1960'
B 91592 PO: '...Main girders and trunnion girder in erection position'
d: '15 Sept. 1960'
B 91593 PO: '... Bridge structure on completion of spaa 'jacking down.'
d: '23 Sept. 1960'
B 91594 PO: '...Trunnion pin and gimbal bearing on east side...'
d: '23 Sept. 1960'
B 91595 PO: '... Bridge steelwork...'
d: '23 Sept. 1960'
B 91596 PO: '... Main steelwork from south approach...'
d: '23 Sept. 1960'
B 91597 PO: '... New opening bridge from north bank with existing wooden double bascule bridge in foreground'
d: '16 Oct. 1960'
B 91598 PO: 'Messrs A A Stuart & Sons Ltd. Twechar opening bridge...Arrol - Werkspoor' operating machinery'
d: '16 Oct. 1960'
B 91599 PO; B 91601 PO: '... Nose abutment and junction girder...'
d: '17 Oct. 1960'
B 91600 PO; B 91602 PO: '...Opening span from north abutment during lowering'
d: '17 Oct. 1960' & '23 Oct. 1960'
B 91603 PO: '... View of bridge from south east...'
d: '23 Oct. 1960'
B 91605 PO: '...Tail span and boxes for C[ast] I[ron] ballast.'
d: '23 Oct. 1960'
B 91606 PO: '...moving span operated by hand gear...'
d: '31 Oct. 1960'
B 91607 PO: '...Concreting of road deck and ballast complete.'
d: '6 Nov. 1960'
B 91608 PO: 'Messrs A A Stuart & Sons Ltd. Twechar opening bridge...Views of bridge from north west operator's cabin on left.'
d: '15 Mar 1961'
B 91609 PO - B 91611 PO: '...Job 2235-'40. Bridge from east...'
d: '15 Mar 1961'
B 91604 PO: '... Erection of moving span steelwork complete'
d: '23 Oct. 1960'

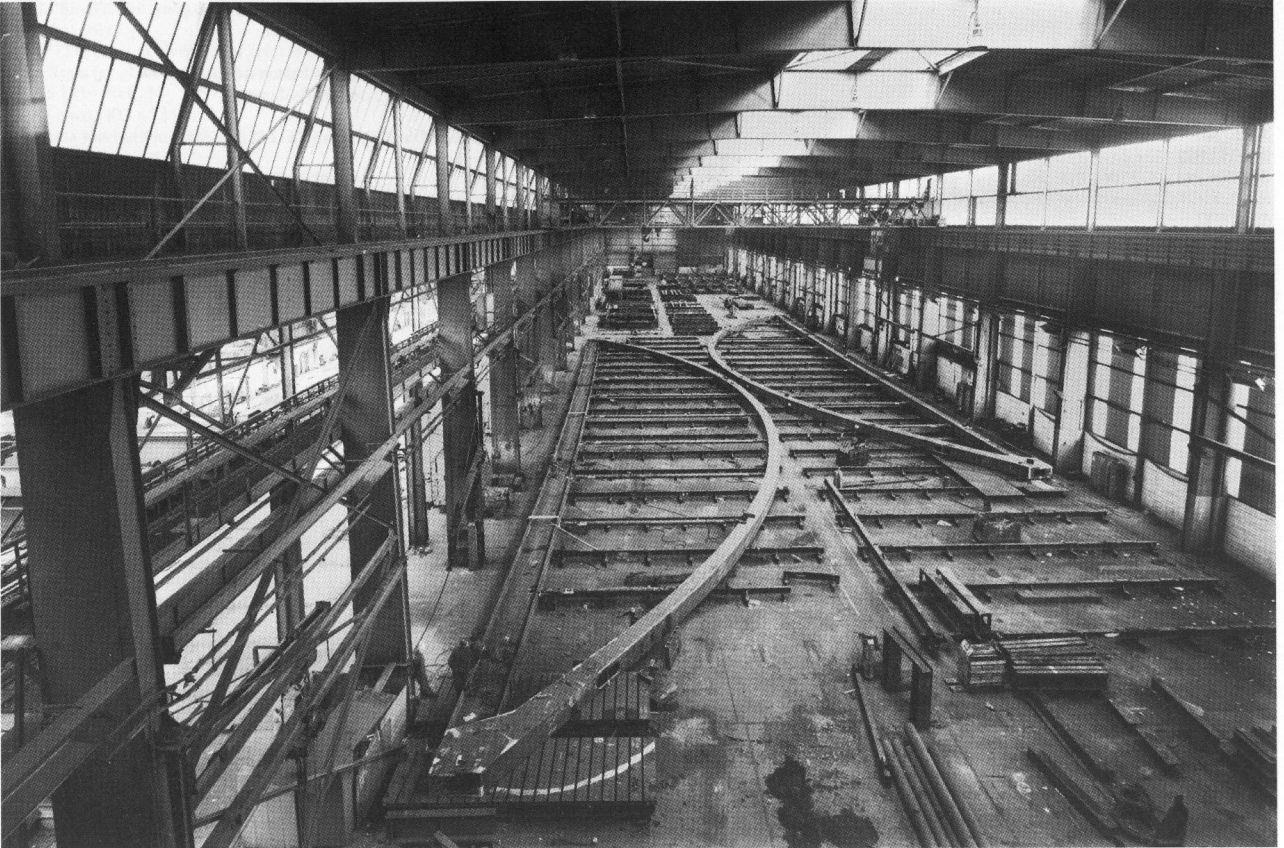


Plate 7: Elevated view from south within the erecting shop of Arrol's Dalmarnock Iron Works in Glasgow, showing the company's last construction contract, new Bonhill Bridge, being assembled (A 38382, 1986, RCAHMS, item 67).



Plate 8: View from north-east of the new Bonhill Bridge under construction, with the old bridge also visible (right) (B 13300, 1987, RCAHMS, item 17).

OLD KILPATRICK

**22. Clydebank, Elderslie Shipyard
Dumbarton & Clydebank Council
NS56NW 40 [NS 517 681]
Shipyard**

Note: 'job No. 168'

Box 11 [H2]

C 87055 PO - C 87061 PO: 'No 2 Dock gate', dock and dock flaps ('gate length 91'7", 35 Tons')
d: '14/5/32'

C 87062 PO: General view of construction area

d: '14/5/32'

C 87063 PO: 'Keel ready to be skidded to Dock wall'

d: '21/5/32'

C 87064 PO: 'Skidding complete, preparations to jack down to level of wall'

d: '22/5/32'

C 87065 PO: 'Placing keel on rollers to move to erection position'

d: '22/5/32'

C 87066 PO - C 87074 PO: Keel in position for lowering, lowered

d: '.../5/32'

C 87075 PO - C 87076 PO: General views, site riveting of gate

d: '2/7/32'

C 87077 PO - C 87079 PO: Flap gate afloat in dock

d: '8/9/32' & '9/9/32'

C 87080 PO: Showing gate leakage

d: '19/9/32'

C 87081 PO: Riverside of gate showing concrete wall

d: '19/9/32'

C 87082 PO: Winch rope in gate socket

d: '22/1/33'

C 87083 PO: Dock entrance

d: '30/1/33'

C 87084 PO: Backfilling in progress

d: '6,7/5/33'

Note: photographed by G Outram Co. Ltd, Glasgow

C 87085 PO: Riveting of gate

d: '2/7/32'

Note: photographed by John Doig Dumbarton Rd, Glasgow

C 87086 PO - C 87089 PO: General view of dock nearing completion

d: '7/9/32'

Note: photographed by John Doig Dumbarton Rd, Glasgow

C 87090 PO - C 87091 PO: Flap in place

d: '9/9/32'

Note: photographed by John Doig Dumbarton Rd, Glasgow

C 87092 PO: Box-flap gate, outside elevation

d: '9/9/32'

Note: photographed by John Doig Dumbarton Rd, Glasgow

C 87093 PO - C 87094 PO: Gate being submerged

d: 1933

Note: photographed by Dux Engraving Co. Ltd Glasgow

C 87095 PO: Capstan

d: '1933

Box 18 [N31]

C 87844: 25-Ton Crane at Elderslie No 2 Dry Dock '808'

n.d.

Note: to left of picture, bucket dredger and hopper barge in use

Box 19 [H2]

C 87966 PO: Dock gate after completion

d: '1932

Note: retouched publication photograph

**23. Clydebank, Kilbowie, Swing Bridge, Forth & Clyde Canal [Plate 9]
Dumbarton & Clydebank**

NS47SE 73 [NS 493 704]

Swing Bridge

Box 6 [B7]

B 91746 PO: 'Railway bridge over the Forth & Clyde Canal at Kilbowie...The line curved in opposite directions on entering and leaving the bridge...The bridge weighs 416 tons and is swung by handgear...'. Bridge in open position, part of Singers Sewing Machine factory in background. Bridge built by Sir William Arrol and Company, Ltd., 1901

d: '1930s

Note: bridge specifications given

B 91747 PO: Railway bridge over the Forth & Clyde Canal at Kilbowie. Bridge in open position, part of Singers Sewing Machine factory in background

d: '1930s

24. Clydebank, John Brown's Shipyard

Dumbarton & Clydebank

NS46NE 29 [NS 493 690]

Shipyard

C 62203: Copy of drawing entitled 'Messrs John Brown & Co. Ltd, Clydebank.

Proposed reconstruction of wharf at north-east corner of fitting out basin.

Typical Cross section. Scale 1" to 10 feet"

[Negative only]

s & d: 'Sir William Arrol & Co. Ltd CE Dept. Dr No 17381, 30.9.49'

C 62202: Copy of drawing entitled 'Messrs John Brown & Co. Ltd, Clydebank.

Proposed reconstruction of wharf at north-east corner of fitting out basin.

Typical cross section. Scale 1/4" to 1 foot" *

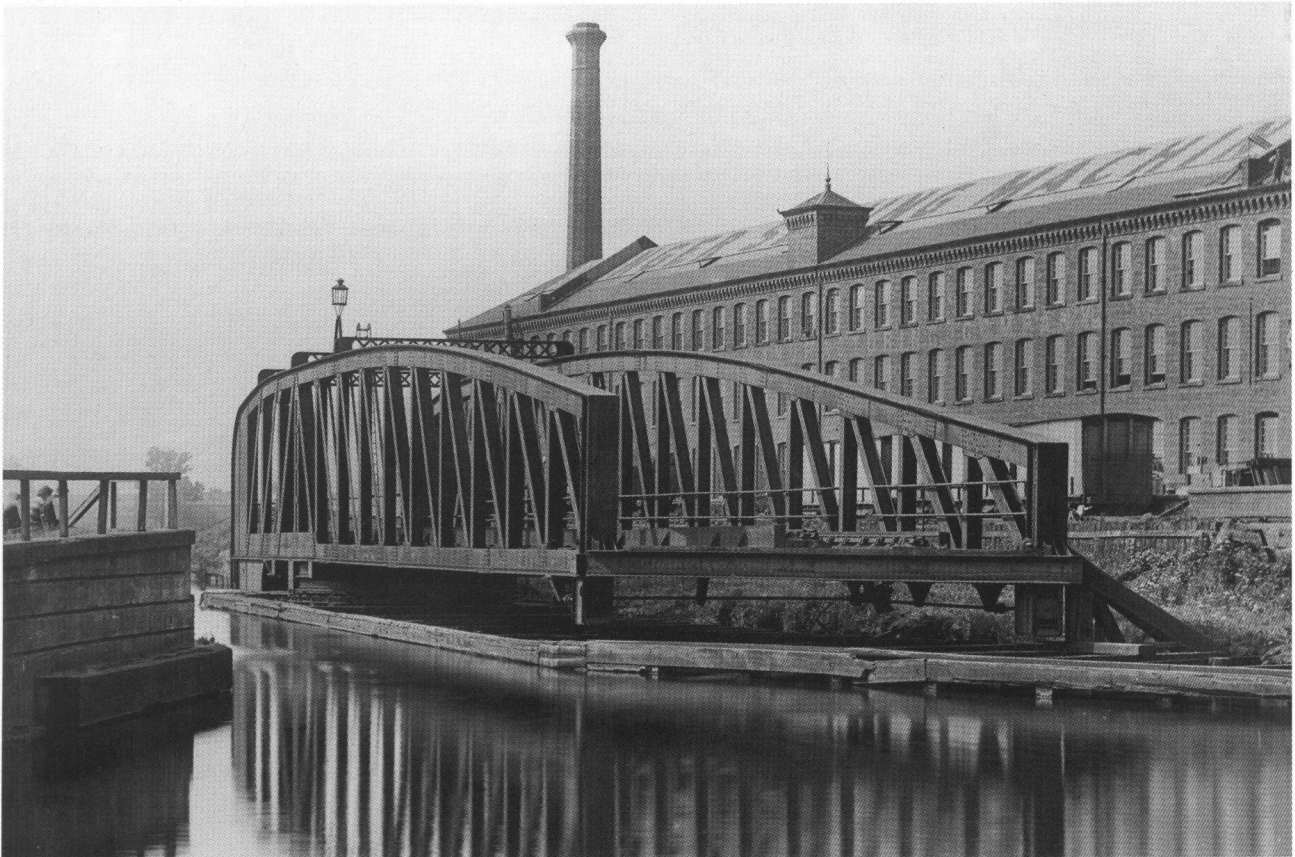


Plate 9: View of the railway bridge over the Forth & Clyde Canal at Kilbowie in open position, photographed in 1930s. Part of the Singer Sewing Machine factory is visible in the background (B 91746 PO, item 23).

s & d: 'Sir William Arrol & Co. Ltd CE Dept. Dr No 17366, 1949'
[Negative only]

DC 27771: Copy of elevation of John Brown's shipyard crane
Insc: 'Titan [or giant cantilever] Crane to Lift 150 Tons'
d: 19.6.1919 Ref.: No. 8289 Scale: 20 ft to 1 in
ink on linen (402 x 735)

Note: this was built in 1907, the 1919 date may refer to re-draughting of the drawing

DC 27774: Elevation of John Brown's Crane
Insc: 'Titan [or giant cantilever] Crane to Lift 150 Tons...J Brown'
d: 19.6.1919 Ref.: No. 8290 Scale: 20 ft to 1 in
ink on linen (402 x 735)

Note: this was built in 1907, the 1919 date may refer to re-draughting of the drawing

DC 27739: Elevation, specification details of John Brown Shipyard Cantilever Crane

Insc: 'Titan Crane [or giant cantilever] to lift 150 Tons...Est.[imate] Job No. 390 1906'

d: 1907 & 4.2.1910 Ref.: 2365/4-2-10 Scale: 20 ft to 1 in
linen backed copy (650 x 600)

Note: this was built in 1907, the 1910 date may refer to re-draughting of the drawing

Box 15 [K14]

Note: stamped 'John Brown and Co. Ltd Engineers and Shipbuilders, Clydebank'

C 87401 PO - C 87402 PO: 'Job 564/50'

d: '1951' & '1952'

C 87404 PO - C 87419 PO; C 87417 PO; C 87419 PO: (NS 495 697) Wharf reconstruction, no job no. ('?564')

d: '1952'

C 87420 PO: (NS 495 697) Wharf reconstruction, Arrol job no. 963, adjacent to 200-Ton Cantilever Crane

d: '1952'

C 87421 PO: (NS 495 697) West Wharf reconstruction, Arrol job no. 1295, north of new tower Crane

d: '1952'

C 87422 PO - C 87428 PO: (NS 496 697) north-east Wharf reconstruction, Arrol job no. 564

d: '1952' & '1953'

C 87429 PO - C 87436 PO: (NS 496 698) North Wharf reconstruction, no Arrol job no. given

d: 1954

Box 15 [K15, K14, K17]

C 87400 PO: Slipways under Construction, test load on Crane

d: '1952'

Box 15 [K17]

C 87437 PO - C 87439 PO; C 87440 PO - C 87462 PO: (NS 496 698) W Wharf reconstruction, Arrol job no. 1396

d: '1954'

C 87463 PO - C 87471 PO: (c. NS 494 697) Wharf reconstruction, no Arrol job no. given

d: 1954

C 87482 PO: (c. NS 496 698) North-east? Wharf reconstruction, no Arrol job no. given

d: '1955'

C 87534 PO: Crane track west yard, preliminary clearing of site, Arrol job no. 910

d: '1956'

C 87536 PO - C 87537 PO; C 87545 PO: East Wharf reconstruction, general view, ?Arrol job no. 341

d: '1956'

C 87473 PO: East Wharf reconstruction, no Arrol job no. given

d: '1955'

C 87532 PO - C 87533 PO: East Wharf reconstruction, Bull Nose, north of Tower Crane, Arrol job no. 341

d: '1956'

C 87524 PO: East Wharf reconstruction, around Tower Crane, no Arrol job no. given. ('Carinthia' Docked)

d: '1956'

C 87525 PO - C 87526 PO; C 87528 PO - C 87530 PO: East Wharf reconstruction, no Arrol job no. given.

d: '1956'

C 87496 PO - C 87497 PO: Wharf reconstruction, no Arrol job no. given

d: '1955'

C 87562 PO: Bull Nose, south-west Wharf, no Arrol job no given

d: 1956?

C 87535 PO: west yard Reconstruction, Arrol job no. 910

d: '1956'

C 87483 PO; C 87479 PO; C 87472 PO; C 87475 PO; C 87491 PO; C 87500 PO - C 87501 PO; C 87503 PO - C 87509 PO; C 87512 PO - C 87517 PO; C 87521 PO - C 87522 PO; C 87541 PO: Wharf reconstruction, general views

d: '1954' - '1957'

C 87546 PO: General view of cofferdam, ?west Yard Reconstruction, general view, Arrol job no. 910

d: '1956'

C 87531 PO: south-west Wharf reconstruction, Bull Nose,

d: '1956'

C 87476 PO: Plan view of Bull Nose Wharf reconstruction, Arrol job no. 1886-

92

d: '1955'

C 87474 PO: west Wharf reconstruction

d: '1955'

C 87542 PO - C 87543 PO: west Yard Reconstruction, general view, Arrol job no. 910

d: 1956

C 87544 PO: west Yard Reconstruction, piling north end of track, Arrol job no. 910

d: 1956

Box 16 [K17]

C 87702 PO: View in Arrol's works, 'Manchester Furnace' being used

d: 1964?

Note: photographed by W Ralston and Co. Ltd, Glasgow

C 87648 PO; C 87647 PO: west Yard

d: '1958'

C 87701 PO: west Yard, 'Arcadia' on slipway

d: '1959'

C 87645 PO - C 87646 PO: west Yard, first 40 Ton Tower Crane being erected, looking west

d: '1958'

C 87698 PO: west Yard, 60-Ton Cranes to right of picture

d: '1959'

C 87700 PO: west Yard, ?crane track

d: '1959'

C 87699 PO: west Yard, ?fabrication shed

d: '1959'

C 87659 PO - C 87663 PO: west Yard, Construction of Berth No. 6,

d: '1958'

C 87649 PO: west Yard, Crane track extension

d: '1958'

C 87656 PO - C 87657 PO: west Yard, Crane track extension, 40-Ton Tower Crane in use travelling along new 645 foot crane track

d: '1958'

C 87653 PO; C 87655 PO: west Yard, Crane track extension, 40-Ton Tower Crane in use

d: '1958'

C 87658 PO; C 87654 PO: west Yard, crane track extension

d: '1958'

C 87650 PO: west Yard, detail of crane track

d: '1958'

C 87664 PO: west Yard, erection of 60 Ton travelling Tower Crane 'C' on the 300 foot crane track

d: '1958'

C 87651 PO - C 87652 PO: west Yard, extension of crane track and way end piling at No. 7 Berth under construction

d: '1958'

C 87697 PO; C 87677 PO: west Yard

d: '1959'

C 87678 PO: west Yard, showing Tower Crane 'B' being erected on 645 foot crane track and site of Tower Crane 'D'

d: '1958'

C 87679 PO - C 87681 PO; C 87684 PO: west Yard, showing Tower Crane 'B' being erected on 645 foot crane track

d: '1959'

C 87682 PO; C 87683 PO; C 87686 PO - C 87687 PO: west Yard, showing Tower Crane 'D' being erected [at Plumbers' Shop site.]

d: '1959'

C 87688 PO: west Yard, showing Tower Cranes 'A', 'B', 'C' and 'D'

d: '1959'

C 87665 PO: west Yard, showing keel laid on reconstructed Berth No. 6

d: '1959'

C 87685 PO: west Yard, showing new Tower Cranes 'A', 'B' and 'C'

d: '1959'

C 87666 PO: west Yard, view from west side of Berth No. 7, showing erection of 60 Ton Tower Crane 'C' on 300 foot crane track,

d: '1959'

C 87689 PO: west Yard, view showing 50000 Ton tanker being built on Berth No. 7 with Cranes 'A' and 'B' on the 645 foot crane track

d: '1959'

C 87670 PO: west Yard, view showing 60 Ton Tower Crane 'C' being erected on 300 foot crane track, west side of Berth 7

d: '1959'

C 87694 PO; C 87671 PO: west Yard, view showing 60 Ton Tower Crane 'C' & 'D' being erected

d: '1959'

C 87672 PO; C 87669 PO: west Yard, view showing Berths 6 and 7 and Tower Cranes 'B' and 'C'

d: '1959'

C 87673 PO - C 87676 PO: west Yard, view showing Tower Crane 'B' being erected on 645 foot crane track

d: '1959'

C 87693 PO; C 87692 PO: west Yard, view showing Tower Crane 'D', Crane 'B' and 'A' in the background

d: 1959?

C 87668 PO: west Yard, view showing erection of 60 Ton Tower Crane 'B' on the 645 foot crane track between Berths 6 and 7. no Arrol job no. given

d: 1959

C 87667 PO: west Yard, view showing erection of 60 Ton Tower Crane 'C'

d: '1959'

C 87696 PO: west Yard, view showing first of 40 Ton Tower Cranes

d: '1959'

C 87690 PO - C 87691 PO; C 87695 PO: west Yard, view showing new Tower Cranes and tankers being built in Berth Nos. 6 and 7

d: '1959'

C 87590 PO - C 87592 PO; C 87597 PO - C 87605 PO; C 87613 PO - C 87636 PO; C 87560 PO; C 87486 PO; C 87638 PO - C 87641 PO: Reconstruction, slipways wharf etc.

d: '1955'; '1956' & '1958'

C 87637 PO: west Wharf reconstruction, boulder found in way of sheet piling

d: '1954'

C 87561 PO; C 87593 PO - C 87595 PO: Yard Reconstruction

d: '1956' & '1957'

C 87477 PO - C 87478 PO; C 87480 PO - C 87481 PO; C 87484 PO - C 87485 PO; C 87487 PO - C 87489 PO; C 87490 PO; C 87492 PO - C 87495 PO; C 87498 PO - C 87499 PO; C 87502 PO; C 87510 PO - C 87511 PO; C 87514 PO - C 87515 PO; C 87518 PO - C 87520 PO; C 87523 PO; C 87527 PO: Bull Nose Wharf reconstruction, Arrol job no. 1886-92?

d: '1955' & '1956'

C 87565 PO; C 87563 PO: ?Shed reconstruction

d: '1957'

C 87550 PO: west Wharf reconstruction

d: '1956'

C 87538 PO - C 87540 PO; C 87547 PO - C 87549 PO; C 87551 PO - C 87553 PO; C 87554 PO - C 87559 PO; C 87564 PO; C 87566 PO - C 87569 PO; C 87570 PO - C 87578 PO; C 87579 PO - C 87585 PO; C 87586 PO - C 87589 PO; C 87596 PO; C 87643 PO - C 87644 PO: Yard Reconstruction, Arrol Job no. 2910

d: '1956' & '1957' & '1958'

C 87642 PO: ?west Yard, first 40 Ton Tower Crane under Construction

d: '1958'

Box 16 [N15]

C 87703 PO: View of 10 Ton fixed tower Crane, no Arrol job no. given

d: ?1967

Note: photographed by G Outram and Co. Ltd, Glasgow

Box 18 [N16]

C 87835 PO - C 87836 PO

150-Ton Giant Cantilever crane, new jigger runway

n.d.

Box 18 [N28]

C 87840 PO: General view of slipway and derricks

d: ?pre-1914

Note: photographed by Daily Mail

C 87841 PO - C 87843 PO: View of 'Aquitania' under construction, cantilever crane to left [Arrol 150 ton, 1907]

d: ?pre-1914

Note: photographed by A Blackadder, West Nile St Glasgow

Box 18 [N42]

Note: stamped John Brown and Co. Ltd Engineers and Shipbuilders, Clydebank (Misc/227...)

C 87846 PO - C 87847 PO: Repairs to 200-Ton crane, centre portion of jib...

[upgraded from 150-Ton in 1937] Job No. 1239

d: 'December 1951'

Box 18 [N44]

C 87852 PO - C 87853 PO: Launch of Royal yacht 'Britannia' showing Arrol Cranes built for John Brown's

d: 'April 1953'

Note: permission to reproduce, Daily Record

Box 20 [N35]

C 88025 PO: General view of shed under construction

d: '23.8.57'

C 88027 PO: General view ?John Brown's Yard, Clydebank of seven 40 Ton Cranes

n.d.

C 88028 PO - C 88036 PO: View of fitting out basin

n.d.

C 87845 PO: Tower Cranes, with SS ?Caronia under Construction

d: '14/10/47'

C 88026 PO: 'Two Cranes recently completed in our prefabrication shop for John Brown and Co. (Clydebank) Ltd'

Note: stamped "John Brown and Co. (Clydebank) Limited"

d: '23.8.57'

Box 24 [N35]

C 88438 PO: 'Tower Cranes at John Brown & Co. Clydebank, SS Caronia largest post-war Vessel since Q.E. was launched...'

d: '14th Oct. 1947'

Note: photographed by Dux Engraving Co. Ltd, Glasgow

25. Dalmuir, Shipyard

Dumbarton & Clydebank Council

NS47SE 75 [NS 490 703]

Shipyard

Box 17 [L19]

C 87711 PO - C 87717 PO: Shop under assembly (workshops being built for the Royal Ordnance Factory on the W side of the fitting out basin of the former Beardmore shipyard, Dalmuir)

d: probably 1939

RHU

26. Gare Loch, Clyde Submarine Base

Dumbarton & Clydebank Council

NS28NW 5 [NS 245 885]

Naval Establishment

Box 18 [N62]

C 87915 PO; C 87912 PO; C 87913 PO; C 87914 PO; C 87916 PO/CN; C 87917 PO/CN; C 87918 PO/CN: View of cranes

n.d. ?1970s

EAST LoTHIAN

INNERWICK

27. Torness Nuclear Electricity Generating Station

East Lothian Council

NT77NW 52 [NT 746 751]

Power Station

Box 17 [L64]

C 87815 PO/CN - C 87821 PO/CN: View in Arrol's workshops, shop assembly of NEI Cranes heavy lift facility for Torness

n.d.

Note: clients; south of Scotland Electricity Board, photographed by J Paton,

Larkhall, Glasgow

PRESTONKIRK

28. East Linton, Tyne Bridge

East Lothian Council

NT57NE 57 [NT 5919 7692]

Road Bridge

Note: For east Lothian County Council

Box 10 [F17]

B 93354 PO - B 93359 PO: west Abutment, pier, general views

d: '22/6/26'

B 93360 PO - B 93365 PO: River Tyne Bridge, during construction

d: '12/10/26' - '27/12/26' d: '4/1/27'

B 93366 PO - B 93374 PO: On completion

d: c.1927

PRESTONPANS

29. Cockenzie Generating Station

East Lothian Council

NT37NE 4 [NT 394 754]

Power Station

Note: Clients: Electricity Board (Arrol Job No. P6922); consortium supply, erection by Arrol; photographed by A G Ingram Ltd Edinburgh

MS 744/7/4: Calculations and Quantities for Stockyard Derricks for SSEB

Box 17 [L56]

C 87793 PO: 40 Ton erection Crane

d: 'June 1964'

C 87786 PO - C 87792 PO: General views showing progress

d: 'Jan 1964' - 'May 1961'

C 87795 PO - C 87798 PO: Structure and Cranes at Cockenzie

d: 1964

Box 20 [L56]

C 88037 PO - C 88039 PO: Structure and Cranes at Cockenzie

d: probably September '1964'

C 62293 CT/PO: Structure and Cranes at Cockenzie

d: '18 Sept. 64' [Colour transparency only]

FIFE

BURNTISLAND

30. Burntisland, Aberdour Road, Aluminium Works

Fife Council

NT28NW 165 [NT 226 862]

Alumina Works

Box 20 [S5]

C 88064 PO - C 88074 PO: B[ritish] A[luminium] Co. Ltd Bunker at

Burntisland

d: '1932'

31. Burntisland, Dock Gates

Fife Council

NT28NW 94 [NT 2317 8541]

Dock Gates

Note: client, Forth Port Authority; Photographed by J Paxton, photographers, Larkhall

Box 11 [G23]

C 87043 PO - C 87044 PO: 'Lifting of south (new) gate into water'

d: '21/5/80'



Plate 10: Rosyth Dockyard. Tugs taking charge after the launch of one of the seven sliding dock caissons designed and built by Arrol for the Admiralty, en route from the construction site at North Queensferry to Rosyth Dockyard, c. 1914. Latterly, the caissons were built at Rosyth because mooring in the River Forth caused obstruction to shipping as wartime river traffic increased (C87142 PO, item 32). In the background, the Forth Railway Bridge, Sir William Arrol and Company's most famous project (1882-1890).



Plate 11: 'HM Dockyard, Rosyth Testing 250 Tons Crane... 5.7.17'. The acquisition of the Parkhead Crane Works in 1910 allowed Arrol not only to design and build such cranes, but also to provide the machinery (C 87838 PO, item 32).

C 87045 PO: 'Lifting old north gate out of place'
d: 22/5/1980
C 87049 PO: 'Stepping north gate (new)'
d: '23/5/80'
C 87042 PO: Crane rigging on site
d: '25/5/80'
C 87052 PO, C 87053 PO/CN - C 87054 PO/CN: Dock gates in place
n.d.
C 87033 PO - C 87034 PO: General view
d: '8/4/80'
C 87037 PO - C 87038 PO; C 87040 PO: General views of gates
d: 1980
C 87035 PO - C 87036 PO; C 87039 PO: north gate
d: '1980'
C 87050 PO - C 87051 PO: north gate (new)
d: '1980'

C 87041 PO; C 87046 PO - C 87048 PO: View of both Dock gates
d: '15/5/80'
Box 21
C 88213 PO - C 88218 PO: Details of ?original lock gates
d: '26/4/79'
C 88206 PO - C 88212 PO; C 88219 PO - C 88228 PO: Details of ?original lock operating mechanism/ hinge
d: '26/4/79' & '2/5/79'

DUNFERMLINE

32. Rosyth, HM Dockyard [Plates 10 and 11]
Fife Council
NT08SE 41 [NT 09 82]
Cranes; Docks

DC 27764: Poor copy of elevation, notes Rosyth Cantilever Crane 1917
 Insc: 'Titan Crane to Lift 100 tons'
 d: 10.6.1919 Ref.: 8274/10.6.19 Scale: 20 ft to 1 in
 linen backed copy (398 x 620)
 Note: later date may refer to re-draughting of the drawing
DC 27772 - DC 27773: Elevations of H.M. Admiralty Rosyth Crane 1917
 Insc: 'Titan Crane to Lift 100 Tons'
 d: 10.6.1919 Ref.: No. 8274 Scale: 20 ft to 1 in
 ink on linen (402 x 735)
 Note: later date may refer to re-draughting of the drawing
Box 12 [J1]
C 87109 PO; C 87113 PO - C 87119 PO; C 87121 PO - C 87135 PO; C 87137 PO;
C 87139 PO: 'A' 'B' 'C' 'D' 'F' 'G' 'H' sliding Caissons, general views
 d: 1912-1915
C 87138 PO: Caisson in Dock No 1. Inner sill
 d: 'Sept. 18 1915'
C 87140 PO - C 87145 PO: Views of Caisson 'H' Caisson moored in basin,
 during launch and en route to Rosyth from 'North Queensferry
 d: '...Apr 1917'
C 87147 PO - C 87148 PO: Views of sliding Caisson No 1 Dock looking south
 d: 'Jun. 1920'
Box 17 [L38]
 Note: Client; Admiralty
C 87778 PO: No 6 Caisson 'A'
 d: 'Feb. 25 1914'
C 87775 PO - C 87777 PO: Frame and Building in Arrol's workshops
 d: April 1952
C 87773 PO - C 87774 PO: Frame and Building, in Arrol's workshops
 d: 'April 1952'
C 87754 PO - C 87758 PO: Section of test frame, in Arrol's workshops
 d: 1950
 Note: photographed by Dux Engraving Co. Ltd, Glasgow
C 87746 PO - C 87752 PO: Section of test frame, in Arrol's workshops
 d: '9/11/50'
 Note: photographed by Dux Engraving Co. Ltd, Glasgow
C 87753 PO: Section of test frame, in Arrol's workshops
 d: ?1950
 Note: photographed by Dux Engraving Co. Ltd, Glasgow
C 87765 PO: Test frame, in Arrol's workshops
 d: '14/9/1951'
C 87772 PO: Test frame, in Arrol's workshops
 d: '20/3/1952'
C 87759 PO - C 87764 PO; C 87766 PO - C 87771 PO: Test frame, in Arrol's
 workshops
 d: '1951'
 Note: notes on reverse of print
Box 18 [N20]
C 87838 PO - C 87839 PO: Rosyth, H.M. Dockyard. Testing of 250-Ton Crane
 [test load
 312.5T]. Views from west wall of main basin looking north
 d: '5 July 1917'
 Note: publication photograph
Box 20 [R56]
C 88058 PO: '150 ton Downstroking Press with self Contained Electrically
 driven pumps'
 d: '17.7.52'
 Note: photographed by Dux Engraving Co. Ltd, Glasgow
Box 21 [L38]
C 88238 PO: 'Frame Building, Rosyth, Admiralty N.C.R.E...'. In Arrol's
 Dalmarnock works
 d: 'April '52'
C 88229 PO - C 88237 PO: 'Rosyth Dockyard Large Test Frame...' with notes.
 In Arrol's Dalmarnock works
 d: '1951' & '1952'
Box 21 [R59]
C 88245 PO - C 88246 PO: '2000 Tons Lifting Apparatus, Admiralty, Rosyth
 per Freeman Fox & Partners. Job 822'
 d: '16/2/54'
 Note: photographed by Dux Engraving Co. Ltd, Glasgow
Box 21 [R60]
C 88253 PO: '2000 Tons Loading Jack, Admiralty London (N.C.R.E. Rosyth)
 Job
 822/50'
 d: '17/3/54'

TULLIALLAN

33. Longannet Generating Station

Fife Council
NS98NE 40 [NS 952 853]
Power Station
 Note: consortium supply, erection by Arrol
Box 14 [L57]
C 87352 PO - C 87354 PO: Under Construction
 d: 'May 1968'
 Note: photographed by Planair aerial photography, Circus Place, Edinburgh; W
 Ralston, Glasgow
Box 17 [L57]
C 87780 PO; C 87799 PO; C 87800 PO - C 87805 PO: Under Construction

d: '1966' & '1968'
 Note: photographed by W Ralston Ltd., Glasgow
Box 23 [L57]
C 88288 PO - C 88299 PO: Power Station under construction with views of
 damaged crane and structure
 d: late 1960's

WEMYSS

34. Methil Harbour

Fife Council
NT39NE 11 [NT 375 995]
Harbour
 Note: 'London & North Eastern Railway'
Box 11 [G4]
C 87028 PO: 'Methil Dock...', unidentified [No.2 or No. 3] dock gate leaf
 during installation
 d: 'Oct. 1925'
C 87029 PO: Unidentified [No. 2 or No. 3] dock gate leaf being lowered into
 position
 d: ?1925

INVERNESS-SHIRE

BOLESKINE AND ABERTARFF

35. Aberchalder, Swing Bridge, Caledonian Canal

Highland Council
NH30SW 9 [NH 3384 0352]
Swing Bridge
Box 5 [B3]
B 91713 PO - B 91714 PO: 'Aberchalder Bridge'
 n.d.

36. Fort Augustus, Swing Bridge, Caledonian Canal

Highland Council
NH30NE 22 [NH 3791 0920]
Swing Bridge
Box 5 [B1]
B 91695 PO: 'Ministry of Transport, Caledonian Canal Bridge...', part of
 mechanism
 d: 'Feb'y 1932'
B 91696 PO: View of lock gate, bridge beyond
 d: ?1932
B 91697 PO - B 91702 PO: Caledonian Canal bridges 'Fort Augustus', under
 construction
 d: Apr./ May '1932'
B 91703 PO: 'Machinery, Caledonian Canal Bridges...Fort Augustus'
 d: 'May 1932'

INVERNESS AND BONA

37. Inverness, Muirton Swing Bridge, Caledonian Canal

Highland Council
NH64NE 143 [NH 6535 4583]
Swing Bridge
Box 5 [B4]
B 91723 PO: Muirton Bridge...'. View of tail end, completed bridge
 d: ?1938.
 Note: photographed by D Whyte, Inverness
Box 6 [B6]
B 91736 PO - B 91740 PO: '...Muirton Bridge'. general views of swing bridge
 n.d.
 Note: photographed by D White, Inverness
B 91741 PO: View of Central Pivot
 n.d.
 Note: photographed by D White, photographers, Inverness
Box 6 [B6a]
B 91742 PO - B 91745 PO:
 n.d.
 Note: photographed by Inverness Press Photos, Inverness

38. Inverness, Tomnahurich Swing Bridge, Caledonian Canal [Plate 12]

Highland Council
NH64SE 53 [NH 6549 4384]
Swing Bridge
 Note: photographed by P Craigie Fleming, Friars' Street, Inverness unless
 otherwise stated
Box 5 [B4]
B 91715 PO - B 91716 PO: 'Tomnahurich Bridge Inverness' showing existing
 and temporary bridges
 d: '4/11/37'
 Note: photographed by D Whyte, Inverness
B 91717 PO - B 91721 PO: Bridge under construction, cofferdam, east
 abutment, deck, tail and nose end
 d: '26/5/38' - '1/8/1932'
B 91722 PO - B 91727 PO: Views of completed bridge
 d: 1938



Plate 12: View of the replacement Tomnahurich swing bridge under construction over the Caledonian Canal, 1938 (B 91719 PO, item 38).

B 91728 PO; B 91730 PO: 'Tomnahurich Bridge'. Views of bridge opening mechanism
d: '7/10/38'
B 91729 PO: 'Tomnahurich Bridge. Control Panel'
d: '7/10/38'

KILMALLIE

39. Banavie, Swing Bridge, Caledonian Canal
Highland Council
NN17NW 17 [NN 1123 7684]
Swing Bridge
Box 6 [B5]

B 91735 PO: 'Banavie Bridge...'. Bridge Completed
d: ?1930s

Note: photographed by Dux Engraving Co. Ltd, Glasgow

B 91731 PO: 'Banavie Bridge...'. Distant view of Construction site
d: ?1930s

Note: comment on road quality

B 91732 PO - B 91734 PO: 'Banavie Bridge...'. Under Construction
d: ?1930s

40. Fort William, Lochaber Aluminium Smelter
Highland Council
NN17NW 16 [NN 126 750]
Aluminium Works
Box 17 [L22]

C 87731 PO: During Construction with roof structure exposed, Lochaber Power House
d: ?1929

C 87732 PO - C 87733 PO: Views of Bunkers
d: '16 February 1929'

KILMONIVAIG

41. Glen Quoich, Road Bridge
Highland Council
NH00SW 1 [NH 0155 0404]
Road Bridge

Note: 'North of Scotland Hydro Electric Board. Garry project. Quoich Works. Contract No. 58.

Box 10 [F43]

B 93421 PO: '...Bridge over River Quoich'. General view of completed bridge n.d., post 1956

B 93405 PO: No.1 Glen Quoich Road bridge. View along centre line looking east...'
d: '2/2/55'

B 93414 PO: No.10 Glen Quoich Road bridge. Erection of west Cantilever girders. View looking south...'
d: '9/8/55'

B 93415 PO: No.11 Glen Quoich Road bridge. View of steel erection from south east...'
d: '5/9/55'

B 93416 PO: No.12 Glen Quoich Road bridge. View of steel erection from south east...'
d: '4/10/55'

B 93417 PO: No.13 Glen Quoich Road bridge. General view looking south west...'
d: '4/10/55'

B 93418 PO: No.14 Glen Quoich Road bridge. General view looking south west...'
d: '8/11/55'

B 93419 PO: No.16 Glen Quoich Road bridge. View of west abutment from south showing south wing wall...'
d: '6/3/56'

B 93420 PO: No.17 Glen Quoich Road bridge. View of west abutment from north showing north wing wall...'
d: '3/4/56'

B 93406 PO: No.2 Glen Quoich Road bridge. View along Centre line looking west...'
d: '2/2/55'

B 93407 PO: No.3 Glen Quoich Road bridge. Excavation for east approach road...'
d: '2/2/55'

B 93408 PO: No.4 Glen Quoich Road bridge. View along Centre looking west...'
temporary bridge
d: 1955

B 93409 PO: No.5 Glen Quoich Road bridge. View looking east...'
d: '5/4/55'

B 93410 PO: No.6 Glen Quoich Road bridge. General view of site looking north...'
d: '5/4/55'

B 93411 PO: No.7 Glen Quoich Road bridge...'. View of pier foundations, temporary bridge
d: '7/6/55'

B 93412 PO: No.8 Glen Quoich Road bridge. Concreting of Piers 'B' and 'C' and west abutment...'
d: '5/7/55'

B 93413 PO: No.9 Glen Quoich Road bridge. Concreting of Piers 'B' and 'C' and west abutment...'
d: '9/8/55'

MS 744/7/2: Correspondence to Colvilles, Glasgow office regarding 'Ducol' steels, dated 1957

B 75825 CT: General view of completed bridge n.d., post 1956 [Colour transparency only]
C 62294 CT: General view on completion
d: ?1956

[Colour transparency only]

42. Laggan Swing Bridge, Caledonian Canal
Highland Council
NN29NE 4 [NN 2998 9832]
Swing Bridge
Box 5 [B2]

B 91709 PO: General view of site, old bascule bridge on left of picture
d: ?1932

B 91704 PO: 'Ministry of Transport, Caledonian Canal Bridges, Laggan Bridge...' In workshop
d: 'Feb'y 1932'
B 91705 PO; B 91707 PO - B 91708 PO; B 91710 PO: 'Bridge at Laggan, Caledonian Canal', Swing bridge on completion
d: ?1932
Note: photographed by Dux Engraving Co. Ltd, Glasgow
Box 5 [B2A]
B 91711 PO - B 91712 PO: Control Cabin
d: ?1932

KIRKCUDBRIGHTSHIRE

KELLS

43. Glenlee Hydro-electric Generating Station
Dumfries & Galloway Council
NX68SW 68 [NX 6060 8055]
Power Station
Note: specialist work by Arrol
Box 19 [P1]
C 88018 PO - C 88019 PO: Views in works
d: ?1930s
C 88020 PO - C 88022 PO: View on site of pipeline under Construction
d: ?1930s
Box 20 [P1]
C 88051 PO - C 88052 PO: 'Glenlee Pipe Line...Bifurcation...'. On site
d: '13/3/34'
C 88053 PO: 'Glenlee Pipe Unit...pipe...being erected'. View looking north-east towards Power Station
d: '13/3/34'
Note: mounted on board
C 88048 PO - C 88050 PO: 'The Galloway Water Coy Glenlee Pipe Line Contractors, Sir William Arrol & Co. Ltd...'. View in works of bifurcation pipe
d: '1933'
C 88047 PO: 'The Galloway Water Coy Glenlee Pipe Line Test Pressure...contractors Sir William Arrol & Co. Ltd...'. View in works
d: '1933'
Box 20 [P1 (P4)]
Note: originally mis-identified as Stonebyres (Arrol, P4)
C 88130 PO - C 88134 PO: Glenlee Pipe Line being erected
d: 1934
C 88135 PO - C 88136 PO: ?Glenlee Pipe Line being erected
d: 1934
C 88137 PO: Glenlee Pipe Line being erected, power station under construction in background
d: 1934

LANARKSHIRE

BLANTYRE

44. Blantyre, Railway Bridges
South Lanarkshire Council
NS65NE 40 [NS 6 5]
Railway Bridges
Box 7 [E11]
B 91913 PO - B 91918 PO: Old bridge ('built 1878') being removed in sections (in good state of preservation), ballast recovery by L.M.S. Railway Co.
d: ?1931
B 91919 PO - B 91922 PO: Girders and 'Last R[olled] S[teel] J[oist] in floor' fixed and bolted. New bridge
d: ?1931
B 91923 PO: 'Blantyre Bridges south-most Bridge, Job No. 943'
d: '6/9/31'
B 91924 PO: 'Blantyre 1st Bridge...Old Bridge in place, new abutments being constructed'
d: 1931
B 91925 PO - B 91929 PO: 'Job No. 940 1st Bridge...placing main girders...', deck steelwork and on completion
d: 1931
B 91930 PO - B 91932 PO: 'Job No. 940...Blantyre 2nd Bridge' Launched in
d: '6th March 1932'

BOTHWELL

45. Powburn Bridge, M74
South Lanarkshire Council
NS66SE 33 [NS 6920 6138]
Road Bridge
Box 11 [F60]
B 93499 PO - B 93500 PO: Views of bridge under construction, underside
d: August 1967
Note: photographed by W Ralston, Glasgow

Box 24 [F60]
C 62001/1; C 62001/2; C 62002/1; C 62002/2; C 62003/1: General views of bridge under Construction
d: '1967'
B 93496 PO - B 93497 PO; B 93498 PO/CN: General views of finished skew, carrying B7071 over the M74
d: ?1968
C 62003/2: General view of main girder being lifted into place
d: '1967'
C 62004/1 - C 62004/2: General views of main girders, bridge underside
d: '1967'
C 62005/1 - C 62005/2; C 62006/1 - C 62006/2: General views of bridge, main girders in place
d: '1967'

46. Maryville Bridge, M74
North Lanarkshire Council
NS66SE 32 [NS 68 62]
Road Bridge
Box 11 [F61]
B 93495 PO/CN: General view 'Job No. 1685'
d: 'Oct. 1967'
Note: photographed by W Ralston, photographers, Glasgow
Box 11 [F63]
B 93494 PO: General view of Maryville temporary bridge
d: ?1968
Note: photographed by W Ralston, photographers, Glasgow

47. Mossend, William Beardmore Co. Ltd, Steelworks
North Lanarkshire Council
NS76SW 28 [NS 74 60]
Steel Works
Box 21
C 88244 PO: '100 Ton E[lectric]O[verhead]T[ravelling]for Wm Beardmore'
n.d.
C 88243 PO: 'Neg No. 2379 5 - 100-Ton Electric Overhead Ladle Cranes...with 15-Ton Auxiliary Crab. Supplied to William Beardmore & Co. Ltd, Mossend Works Nr. Glasgow'
n.d.

CADDER

48. Glasgow Bridge, Forth & Clyde Canal
City of Glasgow Council
NS67SW 46 [NS 6345 7302]
Swing Bridge
Box 6 [B8]
B 91748 PO - B 91751 PO: 'Cadder Bridge'. Views of bridge along deck looking North
n.d.

49. Hungryside Bridge, Forth & Clyde Canal
City of Glasgow Council
NS67SW 47 [NS 6230 7303]
Lifting Bridge
Box 2 [A19]
B 90459 PO - B 90460 PO: General views of completed bascule bridge (Workspoor type) on Forth & Clyde Canal
n.d.

DALZIEL

50. Motherwell, Colville's Pipe Bridge
North Lanarkshire Council
NS75NW 58 [NS 7 5]
Pipe Bridge
Box 20 [S3]
C 88060 PO - C 88062 PO: General view under construction and on completion
n.d.

51. Motherwell, Ravenscraig Steel Works
North Lanarkshire Council
NS75NE 16 [NS 77 56]
Steel Works
Box 21 [R87]
C 88248 PO - C 88250 PO: 'Barrel for 240 Ton E.O.T. Crane for Colvilles, Motherwell, Job No. 7139...'
d: 'Dec. 1968'
Note: photographed by W Ralston Ltd, Glasgow
Box 17 [L48]
C 87781 PO - C 87785 PO: View of 'shop' under construction with roof structure exposed
d: 'June 1956'



Plate 13: View from Clyde Place, Glasgow, of the Central Station Bridge during construction, September 1902 (completed 1905). This was built for the Caledonian Railway Company to their design as part of the reconstruction of the station. An earlier bridge built also by Arrol (1875-8) for the Caledonian Railway is just visible in the centre background. Its girders and decking had to be jacked up by 3 feet in order to achieve the rail level of the new bridge (B 91884 PO, item 58).

EASTWOOD

52. Glasgow, Pollokshaws Road Bridge

City of Glasgow Council
NS56SE 149 [NS 5600 6142]
Road Bridge

Note: client; Glasgow Corporation

Box 10

B 93376 PO - B 93377 PO: General views
d: 'April 1930'

GLASGOW

53. Glasgow, 153-239 Elliot Street, Engineering Works

City of Glasgow Council
NS56NE 203 [NS 574 650]
Engineering Works

Note: photographed by W Ralston, photographers, Glasgow; 'Job No. 1256'

Box 17 [L5]

C 87704 PO: General view of erecting shop bay, 280' long, 78' wide showing a 100 and 40-Ton crane
d: 1944

C 87705 PO - C 87710 PO: General views, interior and exterior
d: 1944

MS 744/7/2: Correspondence from Davis Rowan & Co. Elliot Street, Glasgow regarding works extension

54. Glasgow, Albert Bridge

City of Glasgow Council
NS56SE 154 [NS 5942 6444]
Road Bridge

C 62331 - C 62332: Elevations, plan, details

Copy of 'The Albert Bridge over the River Clyde at Glasgow' from Engineering, July 1st ?1870

55. Glasgow, Balmore Road, Lambhill Bridge, Forth & Clyde Canal

City of Glasgow Council
NS56NE 199 [NS 584 694]

Lifting Bridge

Box 2 [A17]

B 90456 PO: Completed rolling lift bridge, shown during operation
d: late 1920s?

56. Glasgow, Blochairn Road, Blochairn Steel Works

City of Glasgow Council
NS66NW 45.1 [NS 615 661]
Steel Works

Box 21

C 88260 PO: '5-Ton Electric Overhead Slab Charging Machine, 50' - 0" Span Supplied to the Steel Company of Scotland Ltd, Blochairn Works, Glasgow'
d: c.1922

57. Glasgow, Central Station Railway Bridge

City of Glasgow Council
NS56SE 140.0 [NS 5872 6480]
Railway Bridge

Box 7 [E1]

B 91881 PO: Elevated view of bridge looking north-west from corner of Carlton Place/ Bridge Street
n.d.

B 91882 PO: View of north end of bridge looking along the Broomielaw, possibly just before demolition (in 1966-7). Note the date plaque and the Caledonian Railway crest.
d: ?1966

58. Glasgow, Central Station Railway Bridge [Plate 13]

City of Glasgow Council
NS56SE 140.1 [NS 5869 6481]
Railway Bridge

Box 7 [E2]

B 91883 PO: General view of bridge
d: c.1905

B 91884 PO: General view of bridge under construction looking north from Clyde place
d: '24th Sept. 1902'

59. Glasgow, Custom House Quay

City of Glasgow Council
NS56SE 153 [NS 588 647]
Quay

Box 20 [S2]

C 88059 PO

'...Fitting out berth at Clyde Street...'

d: '7.9.45'

Note: press photograph, Evening News, Glasgow

60. Glasgow, Dalmarnock Road, Dalmarnock Generating Station

City of Glasgow Council
NS66SW 104 [NS 616 627]
Power Station

Box 18 [N3]

C 87822 PO: 30 Ton crane supplied by Arrol to Glasgow Corporation at Dalmarnock
n.d.

61. Glasgow, General Terminus Quay

City of Glasgow Council
NS56SE 150 [NS 575 648]
Quay

Box 19

C 87948 PO: '20 Ton electric travelling ore unloader' Stobcross Crane (NS56SE 123.01) and the South Rotunda visible (NMRS No. NS56NW 79) in distance
n.d.

Note: retouched publication photograph

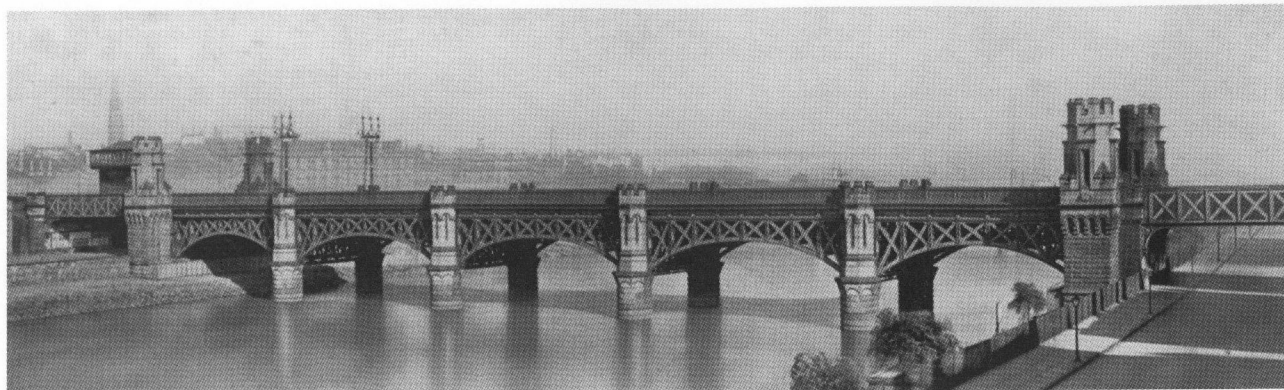


Plate 14: View of the Union Railway Bridge, Glasgow, c.1900, for which Arrol completed the steelwork (B91887/PO, item 64).

62. Glasgow, Harbour Tunnel, Tunnel Street To Plantation Place

City of Glasgow Council
NS56NE 79 [NS 5718 6516]
Lock Gates

Box 19

C 87946 PO: Lock gates leaving from Stobcross Quay, North Rotunda in background
d: ?1976

Note: photographed by W Ralston, Photographers, Glasgow

63. Glasgow, Kelvin Hall

City of Glasgow Council
NS56NE 145 [NS 565 663]

Public Building

Box 20 [S16]

C 88083 PO: Copy of 'Proposed Reconstruction of Kelvin Hall'. Interior view u.s.

d. : 1930s

C 88082 PO: Copy of 'Proposed Reconstruction of Kelvin Hall', Perspective view of alternative elevation

u.s.

d: 1930s

64. Glasgow, Union Railway Bridge [Plate 14]

City of Glasgow Council
NS56SE 145 [NS 5928 6450]

Railway Bridge

Box 7 [E5]

B 91887 PO: Railway over River Clyde, Glasgow (St Enoch Station). Looking north-east

d: c.1902

65. Glasgow, Stobcross Quay, Finnieston Cantilever Crane

City of Glasgow Council
NS56NE 123.1 [NS 5726 6507]

Cantilever Crane

DC 27769: Copy of elevation, notes Clyde Navigation - Stobcross Quay Cantilever Crane

Insc: '175-Ton Cantilever Fitting - out Crane'

d: 1928 Scale: 20 ft to 1 in

linen copy (650 x 600)

Note: This was a crane design tendered unsuccessfully by Arrols, although they won the contract for the foundations. Cowans and Sheldon won the contract for the crane.

Box 19

C 87947 PO

Lock gates leaving from quay, looking east towards Lancefield Quay and Kingston Bridge (to be loaded by crane?)

d: ?1976

Box 21

C 88240 PO: Stobcross/Finnieston Crane and North Rotunda looking west

d: ?1976

Note: photographed by W Ralston, Glasgow

66. Glasgow, Rigby Street, Parkhead Crane Works

City of Glasgow Council
NS66SW 101 [NS 6321 6443]

Engineering Works (Cranes)

DC 26198: Sections, key

Insc: 'Details of large bogies'.

s & d: 'R.H' '8-6-60'

Ref: 33736/3 Scale: 1in = 1ft

Ink (770 x 1092)

Box 21

C 88261 PO: General view of crane in Glasgow, Clydeside. Date plaque 1948, Job No. 5170

d: c.1948

Box 21 [R91]

C 88251 PO - **C 88252** PO: 'Ingot Stripper Screw for Parkhead...' In Dalmarnock works

d: ?1960s

Note: photographed by Photocraft Glasgow Ltd, Hope Street, Glasgow

Box 23 [R20 & R16]

C 88339 PO - **C 88342** PO: Mechanical Engineering Product[?]: '12ft machine', & '7ft machine', ?Tunnelling gear

d: 20th century

Box 23 [R20]

C 88343 PO: Mechanical Engineering Product[?]: ?Tunnelling gear

d: 20th century

Box 24 [R78]

C 88410 PO: Mechanical Engineering: 'Ransome & Rapier Rotate Frame' on planing machine

d: ?1959

Note: photographed by W Ralston Ltd., Glasgow

Box 24 [R93]

C 88431 PO: Mechanical Engineering: 'Crosshead for testing m/c [machinery] Glasgow University]

n.d.

Note: photographed by W Ralston Ltd., Glasgow

Box 24 [R64]

C 88400 PO - **C 88402** PO: Mechanical Engineering: ?Cable Winding machinery/components

d: '20/2/56' & ?1965

Box 24 [R90]

C 88428 PO - **C 88430** PO: 'Flame Hardening set up, Rigby Street'

d: 1969

Note: photographed by W Ralston Ltd, Glasgow

Box 24 [R77]

C 88407 PO: Mechanical Engineering: Herbert lathe

n.d.

Note: photographed by W Ralston Ltd., Glasgow

C 88408 PO/CN - **C 88409** PO/CN; **C 88420** PO: Herbert turret lathe (no. 5) c. 1940s

Screwing tie rod into set of Coventry dies

d: 1964

C 88421 PO: Rotary planing machine in background

d: 1964

Box 24 [R72]

C 88406 PO: Steel slab on planing machine (Smith and Coventry, Manchester c.1900/1910)

d: 1961

Note: photographed by W Ralston Ltd, Glasgow

Box 24

C 88436 PO: ?Crane hoist

n.d.

67. Glasgow, Dalmarnock, Dunn Street, Sir William Arrol's Works [Plates 15 and 16, RCAHMS]

City of Glasgow Council
NS66SW 86 [NS 613 636]

Engineering Works [a.k.a. Dalmarnock Iron Works]

C 62329 - **C 62330**: Plans of Dunn Street/ Nuneaton Street Layout

Copy of 'Sir William Arrol & Co. Ltd Dalmarnock Iron Works'

n.d.

[Negative only]

C 62297 CT: 'Assembly Shop'. General view with crane under assembly
d: ?1970s

[Colour transparency only]

MS 744/7/2: Press release regarding Edgemill designed by Hugh Smith, Glasgow installed at Arrol's Dalmarnock Works, dated 1967

DC 27653 - **DC 27654**: Plans, elevations, sections with annotations

Copy of 'Proposed Extension of Dalmarnock Ironworks'

n.d.

Note: poor dyeline copy Ref.: Bundle No. 9; A0



Plate 15: View from north-west of Arrol's Dalmarnock Ironworks, Glasgow, showing the Dunn Street elevation of the works, containing the company's offices (A 38362, 1986, RCAHMS, item 67).



Plate 16: Detail of the plaque commemorating the life of Sir William Arrol, situated in the foyer of the offices of Dalmarnock Ironworks, Glasgow (A38395, 1986, RCAHMS).

- DC 26101:** Plan.
Insc : 'G-dept shotblast yard'.
d : 'June 1966'
Ref.: A1284D Scale: 0.05in = 1ft
Ink on linen (775 x 1020)
- DC 26104:** Plan.
Insc : 'Area E'
d : 'Jan 1967'
Ref.: A1284E Scale: 0.05in = 1ft
Ink on linen (778 x 1068)
- DC 26106:** Plan
Insc : 'E & F depts also offices'.
d : 'March 1969'.
Ref.: A1284/A2 Scale: 0.05in = 1ft
Ink & pencil on linen (735 x 1005)
- DC 26108:** Plan
Insc : 'Area E, crane layouts'.
d : 'March 1969'.
Ref.: A1284/E2 Scale: 0.05in = 1ft
Ink & pencil on linen (740 x 1005)
- DC 26107:** Plan
Insc : 'Crane locations'.
d : 'March 1969'.
Ref.: A1284/B2 Scale: 0.05in = 1ft
Ink & pencil on linen (730 x 1005)
- DC 26117:** Plan
Insc : 'General plan of hydraulic piping in dept G'.
d : 20th century
Ref.: 21-5 Scale: 0.125in = 1ft
Ink on linen (890 x 3080)
- DC 26116:** Plan
Insc : 'Arrangement of machines in engineering shop - ground floor B'.
d : 20th century
Ref.: Bundle 9 / Drw 5 Scale: 1in = 1ft
Ink on linen (620 x 1050)
- DC 26115:** Elevations and sections.
Insc : 'Proposed additions and alterations to offices'.
s & d : 'Matthew Adam; 1st Dec 1919'.
Scale: 1in = 8ft
Ink (573 x 785)
- DC 26114:** Plan
Insc : 'Area locations, block plan of works'.
d : Jan 1967'.
Ref.: A1284/P1 Scale: 0.167in = 10ft
Ink on film (575 x 810)
- DC 26113:** Sections.
Insc : 'general layout'.
d : 'June 1969'.
Ref.: A1284/S Scale: 0.05in = 1ft
Ink on film (575 x 795)
- DC 26112:** Plan
Insc : 'Ground plan of Dalmarnock Ironworks'.
d : '8-3-10'.
Ref.: Sheet no. 3401 Scale: 1in = 30ft
Ink on linen (1440 x 980)
- DC 26111:** Plan
Insc : 'Machinery locations Area E'.
d : 'Jan 1967'.
Ref.: A1284/E1 Scale: 0.05in = 1ft
Ink on film (760 x 1110)
- DC 26110:** Plan
Insc : 'Machinery locations Area D'.
d : 'Jan 1967'
Ref.: A1284/D1 Scale: 0.05in = 1ft
Ink on film (765 x 1050)
- DC 26130:** Plan
Insc : 'Proposed apprentice training centre Boden Street'.
s & d : 'STG; Dec 65'.
Ref.: No.2 Scale: 0.25in = 1ft
Ink on film (708 x 905)
- DC 26129:** Plan
Insc : 'Proposed apprentice training centre Boden Street'.
s & d : 'STG; Dec. 1965'.
Ref.: No.2 Scale: 0.25in = 1ft
Ink on film (705 x 902)
- DC 26120:** Plan, section.
Insc : 'Extension of offices'.
d : 20th century
Ref.: Job 257/ No.2 various scales used.
Ink on linen (705 x 1320)
- DC 26119:** Plan
Insc : 'Arrangement of piping for C, D, E depts'.
d : 20th century
Ref.: 21-23 Scale: 1in = 8ft
Ink on linen (1015 x 1855)
- DC 26118:** Plan
Insc : 'Nuneaton Street works G'.
d : '3rd Sept. 1901'.
Ref.: Bundle 9/ Drw10 Scale: 1in = 10ft
Ink and wash on linen (788 x 1465)
- DC 26109:** Sections.
Insc : 'general layout'.
d : 'June 1969'.
Ref.: A1284/S Scale: 0.05in = 1ft
Ink and pencil on linen (735 x 1010)
- DC 26105:** Plan
Insc : 'Area C - stockyard, power station and street junction'.
d : 'March 1969'.
Ref.: A1284/C-2 Scale: 0.05in = 1ft
Ink & pencil on linen (735 x 1005)
- DC 26103:** Section
Insc : 'General layout'.
d : 'June 1969'.
Ref.: A 1284 S Scale: 0.05in = 1ft
Ink on linen (730 x 1010)
- DC 26102:** Plan.
Insc : 'Area B departments and Baltic shops'.
d : 'Jan 1967'
Ref.: A 1284 B Scale: 0.05in = 1ft
Ink on linen (775 x 1005)
- Box 22**
C 88284 PO/CN: 'Job 2088 Hunterston ?Internal turntables (charging m/c [machinery])' in Arrol's Dalmarnock Works
d: 1961
- Box 21 [R59]**
C 88246 PO: '2000-Ton Lifting Apparatus, Admiralty, Rosyth per Freeman Fox & Partners. Job 822'
d: '16/2/54'
Note: photographed by Dux Engraving Co. Ltd, Glasgow
- Box 22 [F49]**
C 88283 PO/CN: 'Driving M[achinery] for ferry for FRB' in Dalmarnock Works
d: 1961
Note: photographed by W Ralston, Glasgow
- Box 23 [R5]**
C 88312 PO: Mechanical Engineering: Aircraft Accelerator
d: 1944
- Box 23 [R8]**
C 88331 PO: Mechanical Engineering: Medical lock re-compression chamber
n.d.
- Box 23 [R36]**
C 88377 PO: Mechanical Engineering: Portable Hydraulic Jack, publication photograph
n.d.
- Box 24 [R78 & R79]**
Note : Photographed by W Ralston Ltd., Glasgow
- C 88410 PO:** Mechanical Engineering: 'Ransome & Rapier Rotate Frame' on planing machine
d: ?1959
- C 88411 PO - C 88412 PO:** Mechanical Engineering: 'Caledonian Canal Hyd[raulic] Oper[ating] Equipment'
d: ?1963
- Box 24 [R80]**
C 88417 PO - C 88418 PO: View of shop floor
d: 1964
Note: photographed by W Ralston Ltd, Glasgow
- Box 24 [R67]**
C 88432 PO - C 88433 PO: Unidentified electrically driven plant 'Job No. 251/49'
d: '15/3/50'
Note: photographed by Dux Engraving Co. Ltd, Glasgow
- Box 24 [R93]**
C 88431 PO
Mechanical engineering: 'Crosshead for testing m/c [machinery] Glasgow University
n.d.
Note: photographed by W Ralston Ltd., Glasgow
- Box 23 [R39]**
C 88385 PO: Mechanical Engineering: Hydraulic Stamping Press
n.d.
- Box 23 [R31]**
C 88366 PO: Mechanical Engineering: electric capstans
n.d.
- Box 23 [R6]**
C 88324 PO: Product: Wind Tunnel, view in works
n.d.
- Box 20 [S17]**
C 88084 - C 88086 PO: 'Prince George's visit to Dalmarnock Works'
d: '12th January 1932'
- Box 20 [R51]**
C 88138 PO: Portable site office
n.d.
Note: photographed by Dux Engraving Co. Ltd, Glasgow
- Box 20 [R94]**
C 88139 PO: 'Rosyth Syncrolift Clients TARMAC construction...job No. 21747'
d: '15.9.78'
Note: photographed by W Ralston Ltd, Glasgow

Box 20 [S67]
C 88140 PO - C 88141 PO : '...G Dept...'. Dalmarnock works
d: '16th May 1967'
Note: photographed by W Ralston Ltd, Glasgow

Box 20
C 88142 PO - C 88143 PO: Dalmarnock works, interior
d: '1960s'
Note: photographed by Studio Swain, Glasgow

Box 20 [S47]
C 88094 PO: 'Sir William Arrol & Co. Ltd Glasgow, single & double sided, steam heated Sunzway Radiant warming installation'. Dunn Street shop
n.d.

Box 20 [R52]
C 88095 PO: 'Sir William Arrol & Co. Ltd...G Dept'. View of machinery
d: 'Oct. 1954'

Box 20
C 88144 PO: Dalmarnock works, interior
d: '1963'
Note: photographed by W Ralston Ltd, Glasgow

Box 20 [S68]
C 88145 PO: Enterprise Scotland Stand
d: 'Sept. '64'

Box 20 [S72]
C 88146 PO - C 88148 PO: 'G Dept' Shop floor being replaced
d: '1972'
Note: photographed by W Ralston Ltd, Glasgow

Box 20 [S77]
C 88149 PO - C 88150 PO: Exterior view
d: '1978'
Note: photographed by W Ralston Ltd, Glasgow

Box 20 [S76]
C 88151 PO: Interior view
d: '1954'
Note: photographed by Dux Engraving Co. Ltd, Glasgow

Box 20 [S70]
C 88152 PO - C 88155 PO: 'Plate Prep Bay S Dept...' View of plate edge milling machine by Hugh Smith of Glasgow
d: '1966'
Note: photographed by Studio Swain, Glasgow

Box 20 [S24]
C 88090 PO: 'Eng[ineering] Shop S W A & Co.'
n.d.

Box 20 [R56]
C 88058 PO: '150 ton Downstroking Press with self contained electrically driven pumps'
d: '17.7.52'
Note: clients Admiralty, Rosyth; Photographed by Dux Engraving Co. Ltd, Glasgow

Box 21 [R59]
C 88245 PO: '2000-Ton Lifting Apparatus, Admiralty, Rosyth per Freeman Fox & Partners. Job 822'
d: '16/2/54'
Note: photographed by Dux Engraving Co. Ltd, Glasgow

Box 21 [R87]
C 88248 PO - C 88250 PO: 'Barrel for 240 Ton E.O.T. Crane for Colvilles, Motherwell. Job No. 7139...'
d: 'Dec. 1968'
Note: photographed by W Ralston, Glasgow

Box 21 [R91]
C 88251 PO - C 88252 PO: 'Ingot Stripper Screw for Parkhead...' In Dalmarnock works
d: '1960s'
Note: photographed by Photocraft Glasgow Ltd, Hope Street, Glasgow

Box 21 [R60]
C 88253 PO: '2000-Ton Loading Jack, Admiralty London (N.C.R.E. Rosyth) Job 822/50'
d: '17/3/54'

Box 22 [F49]
C 88279 PO/CN - C 88282 PO/CN: Forth Road bridge, ?Machinery in Dalmarnock Works
d: 1961
Note: photographed by W Ralston, Glasgow

Box 22
C 88285 PO - C 88287 PO: Publication photographs for product advertising?
n.d.
Note: mounted on board

Box 23 [R5]
C 88308 PO - C 88311 PO: Mechanical Engineering: Aircraft Accelerator
d: 1944

C 88307 PO: Mechanical Engineering: Aircraft Accelerator firing cylinder front bracket, trolley track and retarding cylinder bracket Job No 1411/43
d: 'Aug. 1944'

Box 23 [R4, R3]
C 88304 PO - C 88306 PO: Mechanical Engineering: Oilaulic Press
n.d.

C 88362 - C 88365 PO: Mechanical Engineering: electric capstan
n.d.

Box 23 [R30]
C 88361 PO: Mechanical Engineering: ?winch
n.d.

Box 23 [R29]
C 88358 PO - C 88360 PO: Mechanical Engineering: ?winch/capstan, detail
n.d.

Box 23 [R39]
C 88383 PO: Mechanical Engineering: Hydraulic Pipe Flanging Press
n.d.

C 88382 PO: Mechanical Engineering: Hydraulic Stamping Press
n.d.

Box 23 [R38]
C 88381 PO: Mechanical Engineering: crosshead
n.d.
Note: photographed by Dux Engraving Co. Ltd, Glasgow

Box 23 [R37]
C 88380 PO: Mechanical Engineering: ?pneumatic riveter
n.d.

C 88379 PO: Mechanical Engineering: ?Hydraulic Jack
n.d.

Box 23 [R23]
C 88378 PO: Mechanical Engineering: Portable Hydraulic Jack, publication photograph
n.d.

Box 23 [R35]
C 88375 PO: Mechanical Engineering: Hydraulic Conveyor Motor
n.d.

C 88376 PO: Mechanical Engineering: Hydraulic Forging Press
n.d.

Box 24 [R64]
C 88400 PO: Mechanical Engineering: ?Cable Winding machinery
d: '20/2/56'
Note: photographed by Dux Engraving Co. Ltd., Glasgow

Box 24 [R63]
C 88398 PO: Mechanical Engineering: Caisson Operating Machinery during assembly
d: '20/2/86'

Box 24 [R53]
C 88397 PO: Mechanical Engineering: 'J/466/49...Welding Manipulator...'
d: '1949'

Box 24 [R50]
C 88396 PO: Mechanical Engineering: 'Job No 815/46...Crosshead & Baseplate for...Hyd[raulic] Press...'
d: '1946'
Note: ?clients: Duncan Stewart & Co. Ltd; photographed by Scottish Studios, Glasgow

Box 24 [R48 A, B, C]
C 88395 PO: Mechanical Engineering: Press
d: '1946'
Note: ?clients: Craig & Donald
Photographed by Dux Engraving Co. Ltd, Glasgow

C 88394 PO: Mechanical Engineering: 'Press, Clients: Craig & Donald...Job 611/46'
d: '25/4/46'
Note: clients: Craig & Donald
Photographed by Annan, Glasgow

C 88393 PO: Mechanical Engineering: 'Press, Clients: Craig & Donald...Job 611/46'
d: '24/5/46'
Note: clients: Craig & Donald
Photographed by Annan, Glasgow

C 88392 PO: Mechanical Engineering: 'Press, Clients: Craig & Donald...Job 611/46'
d: '6/5/46'
Note: clients: Craig & Donald; Photographed by Dux Engraving, Co. Ltd, Glasgow

C 88391 PO: Mechanical Engineering: 'Plate Press, Clients: Craig & Donald...Job 610'
d: '27/3/46'
Note: clients: Craig & Donald; Photographed by Annan, Glasgow

Box 24 [R47]
C 88390 PO: Mechanical Engineering: 1600-Ton Hydraulic Stamping Press
d: '14-12-10'

Box 24 [R46]
C 88389 PO: Mechanical Engineering: 80-Ton Hydraulic Stamping Press
n.d.
Note: photographed by Dux Engraving Co. Ltd

Box 24 [R43]
C 88388 PO: Mechanical Engineering: ?Gas works retort charger
n.d.

Box 23
C 88386 PO - C 88387 PO: Mechanical Engineering: Oil Cake Press, 365 tons pressure
n.d.

C 88384 PO: Mechanical Engineering: Hydraulic Pipe Flanging Press
n.d.

C 88374 PO: Mechanical Engineering: Hydraulic Conveyor Motor
n.d.

C 88372 PO - C 88373 PO: Mechanical Engineering: hydraulic pump, engraving
n.d.

Box 23 [R31]
C 88367 PO: Mechanical Engineering: electric capstans, publication leaflet
n.d.

Box 23 [R32]

C 88368 PO - C 88371 PO: Mechanical Engineering: steam driven hydraulic pump
n.d.

C 88370 PO: Mechanical Engineering: 12" x 24" pump
n.d.

Box 24 [R70]

C 88405 PO: Mechanical Engineering: Riveter
n.d.

Note: photographed by Dux Engraving Co. Ltd., Glasgow

Box 24 [R65]

C 88403 PO - C 88404 PO: Mechanical Engineering: unidentified machinery
n.d.

Note: photographed by Dux Engraving Co. Ltd., Glasgow

Box 24

C 88401 PO - C 88402 PO: Mechanical Engineering: ?Crane component
d: ?1965

Box 24

Box 23 [R29]

C 88357 PO: Product: ?winch/capstan

n.d.

Box 23 [R27]

C 88353 PO - C 88355 PO: Product: [hydraulic] 'Accumulator'

n.d.

Box 23 [R25]

C 88352 PO: Mechanical Engineering Product: 'Linds Tie Rods'. View of shop belt driven machinery in background

n.d.

Box 23 [R24]

C 88351 PO: Mechanical Engineering: Detail of ?Rotary planing machine in works

n.d.

Note: photographed by Dux Engraving Co. Ltd., Glasgow

Box 23 [R21]

C 88349 PO - C 88350 PO: Mechanical Engineering: 'Sinuous Dredger Gearing'

n.d.

Note: photographed by Dux Engraving Co. Ltd., Glasgow

Box 23 [R14]

C 88335 PO - C 88338 PO: Mechanical Engineering: Air lock equipment for sinking foundations

n.d.

Box 23 [R8] [R8A]

C 88328 PO - C 88330 PO; C 88332 PO - C 88334 PO: Mechanical Engineering: Medical lock re-compression chamber

n.d.

Box 24 [R77]

C 88407 PO: Mechanical Engineering: Herbert lathe
n.d.

Note: photographed by W Ralston Ltd., Glasgow

Box 23 [R6]

C 88314 PO - C 88323 PO; C 88325 PO - C 88327 PO: Product: Wind Tunnel, view in works [for Farnborough?]

d: ?1937

Box 23 [R5]

C 88313 PO: Mechanical Engineering: Aircraft Accelerator
d: 1944

Box 23 [R3]

C 88301 - C 88303: Mechanical Engineering: Oilaulic Press
n.d.

Box 24 [R67]

C 88434 PO: Unidentified electrically driven plant 'Job No. 251/49'
d: '15/3/50'

Photographed by Dux Engraving Co. Ltd, Glasgow

Box 23 [R31]

C 88439 PO: Mechanical Engineering: electric capstan
n.d.

Box 24 [R86]

Note: photographed by W Ralston Ltd, Glasgow

C 88422 PO - C 88427 PO: View of 'Manipulator Cameron Iron Works Ltd....Job No. 1707'

d: ?1970s

Box 24 [R80]:

C 88415 PO: View of ?Furnace

Note: photographed by W Ralston Ltd, Glasgow

C 88435 PO: ?Crane hoist, ?Rigby Street

n.d.

C 62298 - C 62300: Product: Oilaulic Press

n.d.

GOVAN

68. Glasgow, Anniesland, Great Western Road, Railway Bridge

City of Glasgow Council

NS56NW 67 [NS 5486 6865]

Railway Bridge

Box 7 [E12]

B 91933 PO: 'L.N.E.R. Rly, Anniesland, Glasgow', after completion
n.d.

B 91934 PO: General view of bridge under construction

n.d.

69. Glasgow, Ballater Street, King's Bridge [Plate 17]

NS56SE 148 [NS 5999 6377]

City of Glasgow Council

Road Bridge

Note : Photographed by W Fullerton, 167 St Georges Road, Glasgow unless otherwise stated; Arrol 'job no. [?] 735'

Box 10 [F13]

B 93315 PO - B 93316 PO: '...west Pier after flood'
d: '4/1/32'

B 93317 PO: 'King's Bridge [photograph] No. 2 , Existing bridge, general view of deck.'

d: '20/10/30'

B 93318 PO - B 93319 PO: 'Existing bridge...'

d: '31/10/30'

B 93320 PO - B 93321 PO:

'Temporary Bridge...'

d: '31/10/30'

B 93322 PO - B 93323 PO: 'King's Road [photograph] no 10', and '11' views of caisson cylinder

d: '13/2/31'

B 93324 PO: 'King's Bridge [photograph] no 13', looking west. Temporary bridge on right of picture,

d: '4/3/31'

Note: air lock used in sinking cylinders under compressed air centre of picture

B 93325 PO: 'King's Road [photograph] no 15'

d: '4/3/31'

B 93326 PO: 'King's Road [photograph] no 16', existing bridge behind looking east

d: '23/4/31'

B 93327 PO - B 93328 PO: 'King's Road [photograph] no 17', existing bridge to right. Air lock visible for excavation of pier foundations

d: '20/5/31'

B 93329 PO: 'King's Bridge [photograph] No. 20' general view looking west.

Shows clearly the arrangement of piers in relation to the original bridge structure. The temporary bridge and air lock are on the right of the picture

d: '24/6/31'

B 93330 PO - B 93331 PO: 'King's Bridge [photograph] No. 24' and '26', general views looking east

d: '1/10/31' & '24/11/31'

B 93332 PO: 'King's Bridge [photograph] No. 29', cutwater masonry work underway

d: '26/12/31'

B 93333 PO: View of site

d: '10 Feb. 1932'

Note: photographed by Dux Engraving Co. Ltd, Glasgow

B 93334 PO: View of deck under construction

d: '10 Feb. 1932'

Note: photographed by Dux Engraving Co. Ltd, Glasgow

B 93335 PO: 'King's Bridge [photograph] No. 31, abutment foundations'

d: '17/2/1932'

B 93336 PO: 'King's Bridge [photograph] No. 32, completed pier and cutwater visible on right'

d: '24/3/1932'

B 93337 PO: 'King's Bridge from west side, general side'

d: '11/4/1931'

B 93338 PO: 'King's Bridge No.38, abutment under construction'

d: '3/8/1932'

B 93339 PO: 'King's Bridge No.40', looking east along deck line

d: '3/8/1932'

B 93340 PO - B 93341 PO: King's Bridge, centre pier and view from south-east

d: '19/8/32'

Note: photographed by Dux Engraving Co. Ltd, Glasgow

B 93342 PO - B 93343 PO: King's Bridge, views

d: c.1933

Note: photographed by Dux Engraving Co. Ltd, Glasgow

B 93344 PO: King's Bridge, bridge on completion

d: Probably 1933

Note: enhanced publication photograph

B 93384 PO: 'King's Bridge, [photograph] No. 15'

d: '23/4/31'

70. Glasgow, Bearsden Road, Temple Bridge, Forth & Clyde Canal

City of Glasgow Council

NS56NW 68 [NS 5492 6039]

Lifting Bridge

MS 744/7/1: Notecard entitled 'The Royal Scottish Museum, Chambers, Street, Edinburgh giving details of a working model of the Temple Bridge' built in the Museum workshops.

Note : 'Job no 966'

Box 2 [A20]

B 90497 PO - B 90498 PO: Erection of quadrant girders

d: '...2/32'

B 90508 PO: 'Approach road to south bank...'

d: 9/4/32'

B 90468 PO: 'Area showing east approach of Netherton Road'

d: '10th September 1931'

B 90506 PO: 'Ballast box and back wall of counterweight Pit...'

d: 25/3/32'

B 90524 PO - B 90525 PO: 'Bridge lowered electrically ?for the first time

d: 19/6/32'



Plate 17: View of King's Road Bridge, Ballater Street, Glasgow, showing the existing bridge to the right and the air lock used for excavation of pier foundations, 1931 (B93328 PO, item 69).

B 90518 PO: 'Carpenters scaffolding erected
d: 10/5/32'
B 90514 PO: 'east approach in foreground'
d: '9/5/32'
B 90496 PO: 'General view looking west from Temple Lock, JC Lilley's cofferdam in the foreground
d: 24/1/32'
B 90500 PO: 'General view looking west...'
d: '23/2/32'
B 90510 PO: 'Main steelwork erection complete...
d: 16/4/32'
B 90473 PO - B 90474 PO; B 90481 PO; B 90483 PO - B 90492 PO; B 90499 PO; B 90501 PO; B 90517 PO: 'north abutment...'
d: '23, 25/2/32' & '9/5/32' & '18/11/31' & '21/11/31' & '5/11/31' & '18/9/31'
B 90495 PO: 'north cofferdam and temporary footbridge'
d: '24/1/32'
B 90480 PO: 'north cofferdam piles spliced and excavation proceeding...Reinforcing steel being placed for floor slab in counterweight pit'
d: '5/11/31'
B 90465 PO; B 90469 PO - B 90470 PO; B 90472 PO; B 90475 PO - B 90479 PO; B 90526 PO; B 90493 PO: 'south abutment...'
d: '5/10/31' & '18/9/31' & '2/10/31' & '24/6/32' & '21/11/31'
B 90515 PO: 'south approach to bridge under construction'
d: '9/5/32'
B 90505 PO: 'View from north bank showing north abutment and steel erection on south side...
d: 25/3/32'.
B 90494 PO - B 90504 PO: 'Views looking south west...'
d: '21/11/31' & '24 July 1932'
B 90507 PO: 'View of bridge from behind south abutment...
d: 9/4/32'
B 90516 PO: 'west approach and pre-cast yard beyond'
d: '9/5/32'
B 90527 PO: Bridge in open position on completion
d: probably 1932
B 90462 PO: General view (Temple Gasworks, Temple Sawmills and Temple Ironworks in frame) of site before construction
d: '26th May 1931'
B 90463 PO; B 90464 PO; B 90466 PO - B 90467 PO; B 90502 PO - B 90503 PO; B 90511 PO; B 90509 PO; B 90520 PO - B 90522 PO: General views of site
d: '26th May 1931' - '16/4/32'
B 90461 PO: Looking south on east of bridge
d: 26th May 1931
 Note: Temple Sawmills are visible in the background
B 90523 PO: Looking south-east
d: '30/5/32'
B 90528 PO: Looking along Bearsden Road and across the Temple Bridge
d: 1930s
B 90512 PO: Looking towards Temple Gasworks
d: '16/4/32'

B 90529 PO, B 90530 PO: Opening ceremony
d: probably 1932
B 90482 PO: Photograph 'showing JC Lilley's operations'
d: '5/11/31'
B 90513 PO: south bank
d: '22/4/32'
B 90519 PO: View over the yards of Temple Sawmills
d: '30/5/32'

71. Glasgow, Castlebank Street Railway Bridge

City of Glasgow Council
NS56NE 205 [NS 558 663]
Railway Bridge
Box 9 [E67]
B 93236 PO - B 93238 PO: 'Castlebank Street Bridge, Partick...Job No. 2057'
d: 'Oct. '67'

72. Glasgow, 18 Clydebrae Street, Govan Graving Docks

City of Glasgow Council
NS56NE 118 [NS 5615 6550]
Graving Docks
Box 12 [J19]
Note: all photographed by W Ralston Ltd, Glasgow
C 88045 PO - C 88046 PO: 'Clyde Navigation Trust' floating out old caisson to make way for Floating Caisson, No.1 Graving Dock, Govan
d: ?1960
 Note: dimension of caisson given
C 87149 PO - C 87162 PO: Views of damage, dock no. 2 caisson, 'Clyde Nav. Trust',
d: ?1961
Box 21
C 88241 PO - C 88242 PO: View of dock containing caissons (unidentified)
d: '8 Feb. 1972'

73. Glasgow, Govan, Fairfield Shipyard & Engine Works

City of Glasgow Council
NS56NW 36.0 [NS 548 660]
Shipyard
Box 19 [S23]
C 88089 PO: 'Site of operations Fairfield Shipbuilding Yard. Truck mixed concrete being discharged direct into foundations for your new crane...'
n.d.
C 87921 PO/CN - C 87945 PO/CN: 'Transfer of completed 60/10 ton electric level luffing crane onto permanent tracks. Contract no. ND 10825/000012'
d: ?1970s
Box 20 [S42]
C 88093 PO: Unidentified
n.d.
 Note: photographed by Annan, Glasgow?



Plate 18: View from south-south-west across the fitting-out basin of the former Fairfield Shipyard in Glasgow (now Kvaerner Govan), showing the Arrol 220-ton Giant Cantilever crane (built in 1911) (B 41310, 1990, RCAHMS, item 74).

Box 20 [S42]

C 88092 PO: Unidentified (Meadowside Granary in background)
d: post-1913
Note: photographed by Annan, Glasgow?

74. Glasgow, Govan, Giant Cantilever Crane [Plate 18]

City of Glasgow Council
NS56NW 36.1 [NS 5468 6616]

Giant Cantilever Fitting-out Crane

DC 27742: Elevation, specification details of Fairfield Cantilever Crane
Insc: 'Titan Crane to lift 200 Tons...Est.[imate] No. 318'
d: 4.2.1910 Ref.: 2367/4.2.10 Scale: 20 ft to 1 in
linen backed copy (650 x 600)

Box 18 [N43]

C 87848 PO - C 87851 PO: 220-Ton cantilever crane [wrongly shown as 'hammerhead crane' on back of print], views of crane; new track assembled and lined; in jacking position, 'Job no. 846/50' [de-rated from 250-Ton, originally 200-Ton tested 1911]
d: 'Aug. 1952'

Note: photographed by Dux Engraving Company Glasgow

75. Glasgow, Great Western Road, Boulevard Bridge

City of Glasgow Council
NS57SW 64 [NS 528 700]

Lifting Bridge

Note: built for Glasgow Corporation

Box 2 [A16]

B 90451 PO - B 90455 PO: Opening ceremony
d: '16th Sept. 1930'

76. Glasgow, Linthouse Engine Works, Shipyard

City of Glasgow Council
NS56NW 35 [NS 540 660]

Shipyard; Engineering Works**Box 18**

C 87837 PO: Detail of base of [stationary] derrick
d: 1926

77. Glasgow, Meadowside Quay, Meadowside Granaries

City of Glasgow Council
NS56NW 54 [NS 548 664]

Granaries**Box 20 [S36]**

C 88091 PO: 'Misc. D & W Henderson & Co. Ltd, New Kelvin Wharf, Meadowside.. First section of submerged slip platform...'
n.d.

Note: photographed by W Elsmore, photographer, St Enoch Square, Glasgow

78. Glasgow, North British Diesel Engine Works (Barclay Curle) Cantilever Crane

City of Glasgow Council
NS56NW 55 [NS 5334 6684]

Giant Cantilever Fitting-out Crane

DC 27761: Elevation, notes, North British Diesel Engine Co. Cantilever Crane
Insc: 'Electric Titan Crane to lift 150 Tons with 5 Ton Whip'
d: 4.2.1910 & 1919 Ref.: 8243/20.5.19 Scale: 20 ft to 1 in linen backed copy (650 x 600)

DC 27762: Elevation, notes, North British Diesel Engine Co. Cantilever Crane
Insc: 'Electric Titan Crane to lift 150 Tons with 5 Ton Whip...substructure only for North British Diesel Engine Coy.'
d: 4.2.1910 & 1919 Ref.: 8243/20.5.19;29.5.19 Scale: 20 ft to 1 in
linen backed copy (650 x 600)

Box 18 [N6]

C 87823 PO - C 87829 PO: 150-Ton crane during repair, details, Job No. 2939-40
d: '... April 1962'

Note: client; Barclay Curle & Co. Ltd, prints have technical description of repairs

79. Glasgow, Plantation Quay

City of Glasgow Council
NS56NE 202 [NS 566 651]

Quay

Note: clients, Clyde Navigation Trust

Box 14 [K2]

C 87355 PO - C 87380 PO; C 87383 PO - C 87386 PO
n.d.

HAMILTON**80. Bothwell Sewage Works**

South Lanarkshire Council
NS75NW 59 [NS 712 575]

Sewage Works**Box 20 [S10]**

C 88080 PO - C 88081 PO: 'Bothwell Sewage Scheme'
n.d.

Note: photographed by R Topping, press photographers, Rutherglen, Glasgow

81. Raith Cottage, Bridge, M74

South Lanarkshire Council
NS75NW 55 [NS 7178 5785]

Road Bridge

Note: photographed by W Ralston, Glasgow and R Jones of Motherwell, unless otherwise stated. Arrol Job no. 1683

Box 11 [F57]

B 93456 PO: View at Arrol's Dalmarnock Works,
d: 'Aug. 1966'

B 93457 PO - B 93477 PO; B 93480 PO - B 93483 PO; B 93488 PO - B 93491 PO: General views on site, bridge superstructure construction, east half bridge width etc.

d: 1966/1967

B 93478 PO - B 93479 PO: Piers, detail

d: 1967

B 93484 PO - B 93487 PO: Aerial view

d: 'Oct. 1967'

B 93484 PO - B 93487 PO: Aerial view

d: 'Oct. 1967'

Box 18 [F57]

Note: photographed by W Ralston, Glasgow unless otherwise stated

C 87919 PO/CN: Aerial view, Arrol(?) Job No. 1683/66

d: 'October 1967'

C 87920 PO/CN: View of structure before deck installed, Arrol(?) Job No.

1683/66

d: 'October 1967'

82. Ross Junction Bridge, Over M74

South Lanarkshire Council
NS75NW 57 [NS 7401 5502]

Railway Bridge**Box 9 [E65]**

B 93230 PO - B 93231 PO: 'Railway Bridge over M74 By-Pass Road at Ross Junction...'. At Arrol's Dalmarnock Works

d: 'Sept. [19]65'

Note: 'taken by Rwy Co. [British Railways Scottish region]

B 93232 PO - B 93233 PO: 'Ross Junction'. General view of bridge, looking

along M74

d: 1966

LANARK**83. Stonebyres Hydro Electric Generating Station & Pipeline**

South Lanarkshire Council
NS84SE 99 [NS 8501 4415]

Power Station

Note: specialist work by Arrol

Box 20 [P4]

C 88096 PO: 'A1' Tunnel/ pipeline Junction

d: C.1926/7

C 88097 PO; C 88114 PO; C 88119 PO; C 88123 PO: 'A2' 'A19' 'A24'

General views of pipeline under construction

d: 1926/7

C 88098 PO: 'A3' Power station under construction, tailrace

d: '2.3.27'

C 88099 PO - C 88103 PO: 'A4 - A8' Tunnel under construction (3.4m diameter)

d: probably 1927

C 88104 PO: 'A9' Sluice gate detail

d: 1927

C 88105 PO; C 88112 PO - C 88113 PO: 'A10' 'A16', 'A18' General views of tilting weir

d: 1927

C 88106 PO: Specimen Sluice gate

d: c.1927

C 88107 PO - C 88111 PO; C 88118 PO; C 88120 PO; C 88122 PO: 'A11 - A15' 'A23' 'A25' 'A27' General views of power station, tailrace area, approach bridge, overflow

d: 1927

C 88115 PO; C 88117 PO: 'A20' 'A22' General view of sluice gate under construction

d: 1927

C 88116 PO: 'A21' Pipe inlet

d: 1927

C 88121 PO: 'A26' General view of pipeline to power station

d: 1927

NEW MONKLAND**84. Airdrie, Deedes Street Bridge**

North Lanarkshire Council
NS76NE 22 [NS 750 651]

Railway Bridge**Box 7 [E9]**

B 91900 PO - B 91902 PO: View of bridge under reconstruction
n.d.



Plate 19: General view (enhanced for publication) of Waverley Station and the North Bridge, Edinburgh c.1908. Sir William Arrol and Company carried out the work on the North Bridge to a design by Blyth and Westland of Edinburgh. This is possibly the original publication photograph used in *Bridges, Structural Steel Work and Mechanical Engineering Productions*, 1909, 123-5 (B 93379 PO, item 85).

MIDLOTHIAN

EDINBURGH

85. Edinburgh, North Bridge [Plate 19]

City of Edinburgh Council
NT27SE 601 [NT 258 738]

Road Bridge
Box 10 [F22]

B 93379 PO - B 93380 PO: General view [publication photograph, 'Bridges, Structural Steel Work and Mechanical Engineering Productions', 1909, 123-5]

86. Edinburgh, Waverley Railway Station [Plate 19]

City of Edinburgh Council
NT27SE 221 [NT 2580 7386]

Railway Station
Box 10 [F22]

B 93379 PO: General view [publication photograph, 'Bridges, Structural Steel Work and Mechanical Engineering Productions', 1909, 123-5]

MID CALDER

87. Midcalder, Road Bridge

West Lothian Council
NT06NE 35 [NT 076 679]

Road Bridge
Box 10 [F14]

B 93347 PO - B 93349 PO: General view
d: 1924

B 93350 PO: View of deck
September 1924

Note: photographed by Dux Engraving Co. Ltd, Glasgow

B 93351 PO: General view
d: probably 1924

Note: ?publication photograph, mounted on board, photographed by Dux Engraving Co. Ltd, Glasgow

WEST CALDER

88. Addiewell

West Lothian
NT06SW 21 [NT 00 62]

Shale Bing; Shale-Oil Works
Box 23 [R19]

C 88344 PO - C 88348 PO: Machinery: Coal elevating and conveying plant with wagon. [Rear end of wagon tipped by means of hydraulic ram, coal falls into underground hopper, thence to elevator via chutes returning to high level hopper. See Arrol & Co. 'Bridges, Structural Steel Work...' 1909, 242]
n.d.

Note: photographed by Dux Engraving Company, Glasgow

89. Morrispool Road Bridge

West Lothian Council
NT06SW 28 [NT 0267 6278]

Road Bridge
Box 10 [F15]

B 93352 PO - B 93353 PO: General view
n.d.

MORAYSHIRE

KNOCKANDO

90. Blacksboat Road Bridge

Moray Council
NJ13NE 19 [NJ 184 389]

Road Bridge

Note: Banff County Council

Box 10 [F42]

B 93404 PO: General view from Banffshire side 'C.E. 3188'
n.d.

Box 20

C 88040 PO - C 88043 PO: Road bridge, Banff side views showing damage to bridge structure 'CE 3188'

n.d.

C 88044 PO: Showing bearings at top of piers 'CE 3188'

n.d.

ORKNEY

WALLS AND FLOTTA

91. Hoy, Lyness, Royal Navy Oil Terminal

Orkney Islands
ND39SW 20.0 [ND 31 94]

Naval Establishment
Box 20 [S9]

C 88075 PO: General view from east showing salvaging of Capsized German battleship ?SMS Bayern

d: ?1930s

Note: photographed by Star Photos, Perth

92. Hoy, Lyness, Royal Navy Oil Terminal

Orkney Islands
ND39SW 20.2 [ND 309 946]

Oil Tanks

Box 20 [S9]

C 88076 PO - C 88078 PO: View of collapsed oil tank

d: ?post 1914

C 88079 PO: View of oil tank, assembly at Arrol's works?

d: ?post 1914



Plate 20: View from south-east of the old Victoria Bridge at Caputh (built in late 1880s), seen here prior to its replacement with a new bridge. Unconfirmed reports suggest that some of the members of this bridge were recycled from parts of the collapsed first Tay Bridge (A 80965, 1987, RCAHMS, item 94).

PERTSHIRE

COMRIE

93. Dalginross Bridge
Perthshire & Kinross Council
NN72SE 38 [NN 7736 2190]
Road Bridge
Box 10 [F24]

B 93382 PO - B 93383 PO: General view of (constrained) cantilevered bridge on completion
d: c.1904

LITTLE DUNKELD

94. Caputh, Victoria Bridge [Plate 20, RCAHMS]
Perthshire & Kinross Council
NO03NE 26 [NO 0889 3956]
Road Bridge
Box 10 [F23]

B 93381 PO: General view of cross-braced bridge over River Tay
d: c.1889

RENFREWSHIRE

ERSKINE

95. Erskine, Erskine Bridge
Renfrewshire Council
NS47SE 70 [NS 462 724]
Road Bridge
DC 26127: Elevation.

Insc: 'Typical trestle arrangements'.
d: 'Aug. 67'
Ref.: 19600 Scale: 0.125in = 2ft
Ink (688 x 1024)

DC 26128: Elevations.
Insc: 'Erskine bridge scheme 1'
d: 'Aug. 1967'
Ink (634 x 1024)

DC 26124: Plan, elevation and section
Insc: 'Possible arrangement of assembly Goliath'.
d: '12-9-67'.

Ref.: 19603 Scale: 0.125in = 1ft
Ink (765 x 1020)

DC 26125: Plan, section.
Insc: 'Proposed erection procedure - general scheme'.
d: 'Aug. 1967'.

Ref.: No.1 Scale: 0.375in = 100ft
Ink and pencil (690 x 1026)

DC 26122: Plan, section.
Insc: 'proposed additions to typical box unit'.
d: '4 Oct. 67'.

Ref.: 19611 Scale: 0.25in = 1ft

Ink (683 x 1025)

DC 26123: Section

Insc: 'Proposed erection scheme for typical approach span'.

d: '8 Aug. 67'.

Ref.: 19596 Scale: 1 : 250

Ink (687 x 1023)

DC 26121: Section, plan.

Insc: 'Proposed erection procedure - assembly areas'.

d: 'Aug. 1967'.

Ref.: No.2 Scale: 1.5in = 100ft

Ink and pencil (690 x 1025)

DC 26126: Section.

d: 1960's

Ink (690 x 1015)

GREENOCK

96. Greenock, Dock

Inverclyde Council

NS27NE 46 [NS 2 7]

Dock

Box 12 [H10]

C 87104 PO - C 87108 PO: 'Lamont Dock Gate', view of Dock gate in Arrol's works

d: ?1966

Note: photographed by W Ralston, Glasgow

97. Greenock, Garvel Dock

Inverclyde Council

NS27NE 31 [NS 295 758]

Dock

Note: 'job no. 140'

Box 11 [G10]

C 87030 PO - C 87031 PO: Dock gates [c.NS 2944 7592], north leaf in place with new entrance in concrete shown joining granite masonry built 1871

d: '9/8/32'

C 87032 PO: Dock gates [c.NS 2944 7592], south leaf ready to launch

d: '9/8/32'

98. Greenock, James Watt Dock

Inverclyde Council

NS27NE 16 [NS 296 757]

Dock

Box 21

C 88262 PO - C 88263 PO; C 88265 PO - C 88268 PO; C 88270 PO - C 88273 PO: Views showing the "Box" Gate details and entrance cofferdam

d: '28/3/63'

C 88264 PO: General view, engineers on site

d: '28/3/63'

C 88269 PO: View showing "Box" Gate. Sugar warehouse in background

[NMRS No. NS27NE 15]

d: '28/3/63'

99. Greenock, James Watt Dock, Cantilever Crane

Inverclyde Council

NS27NE 17 [NS 2957 7568]

Giant Cantilever Fitting-out Crane

DC 27770: Copy of elevation of James Watt Dock Crane

Insc: 'Giant Crane to lift 150 Tons'

d: 23.10.1922 Ref.: No.9773 Scale: 20 ft to 1 in

linen backed (401 x 680)

DC 27775: Elevation, specification notes on James Watt Dock Crane, Greenock for Greenock Harbour Trust

Insc: 'Giant Crane to Lift 150 Tons'

d: 23.10.1922 Ref.: No. 9773 Scale: 20 ft to 1 in

ink on linen (402 x 735)

Box 18 [N49]

Note: Greenock Harbour Trust, 'Job. No. 2455-61/60', 'Job No. 2458.61'

C 87854 PO - C 87855 PO: 150 ton Cantilever Crane, Inspection

'Job No. 2455-61/60'

d: '7/11/60'

C 87857 PO - C 87859 PO; C 87860 PO - C 87861 PO; C 87863 PO - C

87864 PO: 150 ton Cantilever Crane, Inspection, centre pin casting, detail of [?] ring, looking towards tail showing position of main lifting girder, 'Job No. 2455-61/60'

d: '7/11/60'

C 87862 PO: 150-ton Cantilever Crane, Inspection, upper roller path and

?drum girder, 'Job No. 2455-61/60'

d: '7/11/60'

C 87865 PO - C 87867 PO: 150-ton Cantilever Crane (reconstruction) General

view of crane with forward twin lifting girders in position, preparing to 'thread'

girder D1 through jib bracing, erection of D1 portion of lifting girders by hand

crane

d: '14/4/61'

C 87868 PO - C 87870 PO: 150-ton Cantilever Crane (reconstruction), detail of

lifting girders, 'Job No. 2458.61'

d: '14/4/61' & '28/4/61'

C 87871 PO: 150-ton Cantilever Crane (reconstruction), general view

(bridle sling being used to erect jacking stool), 'Job No. 2455.61'

d: '28/4/61'



Plate 21: The elegant bow-string girder (new) Bonar Bridge under construction, viewed from the west abutment in March 1973. This was built to replace an earlier Arrol braced bow-string girder bridge of 1894 (C 87954 PO, item 107).

C 87872 PO: 150-ton Cantilever Crane (reconstruction), view of position of wing plate and jack stools, 'Job No. 2455.61'
d: '28/4/61'
C 87873 PO - C 87874 PO: 150-ton Cantilever Crane (reconstruction), wind anchorage plate detail and wind anchor stool being erected, 'Job No. 2455.61'
d: '28/4/61'
C 87875 PO: 150-ton Cantilever Crane (reconstruction), detail of lifting girders, 'Job No. 2455.61'
d: '28/4/61'

100. Greenock, Scott's Engine Works

Inverclyde Council
NS27NE 26 [NS 284 755]
Engineering Works
Box 18 [N10]

C 87830 PO - C 87834 PO: 'Scott's Shipbuilding and Engineering Co. Ltd....Job Nos. 614/617...Arrol's Patent Electric Derrick...', general views
d: '1911'

Box 20 [N10]

C 88024 PO: '60-Ton travelling tower crane, Scott's ...Job No. P6540', general view
d: 'Nov. 1961'

Note: mounted on board

C 88023 PO: 'Coles Crane belonging to Sir William Arrol & Co. ...placing an overhead travelling crane bridge girder for Scott's...', general view
n.d.

INVERKIP

101. Inverkip, Generating Station & Jetty

Inverclyde Council
NS17SE 5 [NS 196 710]
Power Station/Jetty
Box 17 [L62]

C 87812 PO - C 87814 PO: 'Turbo foundations, Arrol Job No. 20817/002'
d: '8 July 1975'

Note: client; Parsons

Note: photographed by W Ralston Ltd, Glasgow

C 88239 PO/CN: General view
n.d.

KILBARCHAN

102. White Cart Bridge, M8

Renfrewshire Council
NS46NE 42 [NS 4846 6593]
Road Bridge

MS 744/7/5: Scottish Development Department Renfrew Bypass Contract No.4
White Cart Viaduct - Superstructure

Box 11 [F59]

Note: photographed by W Ralston, photographers, Glasgow

B 93492 PO: 'View'

d: 'May 1968'

B 93493 PO: View, 'Job No. 1791'
d: 'October 1967'

PAISLEY

103. Paisley, White Cart Bridge

Renfrewshire Council
NS46SE 62.4 [NS 4914 6348]
Road Bridge
Box 10 [F25]

B 93385 PO: General view of concrete[?] girder bridge over the River White Cart, at Messrs J P Coates Ltd, Anchor Mills
n.d.

Note: photographed by Annan, Glasgow

PORT GLASGOW

104. Port Glasgow, Glasgow Road, Railway Bridge

Inverclyde Council
NS37SW 52 [NS 3271 7438]
Railway Bridge
Box 9 [E66]

B 93234 PO: 'Job 1728 Robert Street Bridge...'. General view of skew bridge in Arrol's works
d: 'Aug. [19]66'

B 93235 PO/CN: General view of bridge on completion
d: ?1966

RENFREW

105. Renfrew, Braehead Generating Station

Renfrewshire Council
NS56NW 71 [NS 516 676]
Power Station
Box 17 [L32]

Note: clients, British Electricity Authority, photographed by Dux Engraving Co. Ltd, Glasgow unless otherwise stated. This was a consortium supply and erected by Arrol.

C 87734 PO - C 87737 PO: Details of columns in Arrol's works
d: 1949

C 87738 PO - C 87740 PO: On site
d: 1949

C 87741 PO: View from 'south-west showing boiler house and bunkers'
d: '6/10/1949'

C 87742 PO: View from 'north-east long east gable of Turbine House'
d: '6/10/1949'

C 87743 PO - C 87744 PO: General view of site
d: '5 February 1950'

C 87745 PO: Interior view (riveting)
d: ?1954

Photographed by W Ralston, photographers, Glasgow
Box 19 [L32]

C 87949 PO - C 87953 PO

Views of switchgear, transformers and cables
d: ?1961

Note: clients, British Electricity Authority, photographed by W Ralston, photographers, Glasgow

106. Selvieland Farm, Access Bridge
Renfrewshire Council

NS46NW 32 [NS 4477 6738]

Road Bridge

Box 10 [F30]

B 93386 PO: 'Bridge over River Gryfe, 60 feet span', view of assembled bridge at Arrol works
d: '1931'

B 93387 PO - B 93389 PO: General view of bridge nearing completion
d: ?1931

B 93390 PO - B 93395 PO: 'Selvieland Farm Bridge, Job No. 963', general views
d: '20/10/31'

ROSS AND CROMARTY

KINCARDINE

107. Bonar Bridge, New Bridge [Plate 21]

Highland Council

NH69SW 62 0 [NH 6093 9154]

Road Bridge

(see site 119)

Box 11

Note : photographed by W Ralston Ltd., Glasgow

C 87026 PO: Deck bow-string girder Junction in assembly shop
d: 1972

C 87027 PO: General view of bridge with trestles in place
d: 1973

C 87024 PO - C 87025 PO: Views of bow-string girders in assembly shop
d: 1972

Box 19

C 87954 PO - C 87955 PO: Views of abutments
d: 27/3/73

Note: photographed by Norman A MacLeod, photographers, 23A High Street, Inverness

Box 22

C 88278 PO: View of Completed bridge
d: ?1973

Note: photographed by Norman A MacLeod, photographers, 23A High Street, Inverness

ROXBURGHSHIRE

MELROSE

108. Drygrange Bridge (New)

Scottish Borders Council

NT53SE 77 [NT 5754 3467]

Road Bridge

Box 11 [F66]

Note: 'job No. 20297'

C 87006 PO - C 87008 PO: Site under preparation, north bank
d: ?1972

C 87009 PO: High level view of excavations for foundation of piers
d: ?1972

C 87010 PO: Construction area, road level; Leaderfoot Viaduct in background
d: ?1972

C 87011 PO - C 87013 PO: Bridge sections in Arrol's Works
d: 'Aug. 1972'

Photographed by W Ralston, Glasgow

C 87014 PO: Erection of 'box (No. 12E), looking north-east, '
d: '5/1/1973'

Note: photographed by W Wilson Laing, Blairgowrie

Note: photographed by W Wilson Laing, Blairgowrie

C 87015 PO: south bank works, looking south-east, ''
d: '5/1/1973'

Note: photographed by W Wilson Laing, Blairgowrie

C 87016 PO: 'Temporary infill and road around Pier (E), looking north-east; trestles in place supporting north section
d: '5/1/1973'

Note: photographed by W Wilson Laing, Blairgowrie

C 87017 PO: Progress on north bank, looking west
d: '5/1/1973'

Note: photographed by W Wilson Laing, Blairgowrie

C 87018 PO: Looking south along box girders
d: '5/1/1973'

Photographed by W Wilson Laing, Blairgowrie

C 87019 PO - C 87023 PO/CN: Completed bridge
d: 'March 1974'

Note: photographed by W Wilson Laing, photographers, Blairgowrie

Box 19 [F66]

C 87956 PO - C 87965 PO: During Construction
d: '1973'

Note: photographed by D Wilson Laing, Blairgowrie

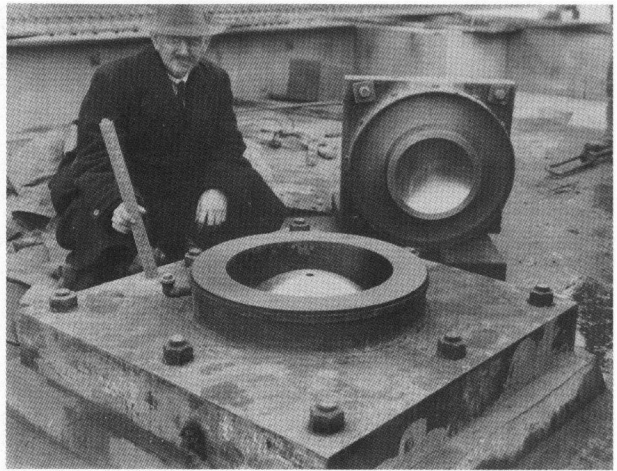


Plate 22: View of the centre pivot of the Dalgrain Bridge over the Forth & Clyde Canal, near Falkirk, January 1934 (B 91767 PO, item 111).

STIRLINGSHIRE

FALKIRK

109. Bonnybridge, Swing Bridge, Forth & Clyde Canal

Falkirk Council

NS88SW 51 [NS 824 800]

Swing Bridge

Box 6 [B11]

B 91776 PO - B 91779 PO: 'Bonnybridge'. View of bridge in open and closed positions
n.d.

Note: photographed by the Dux Engraving Co. Ltd, Glasgow

110. Castlecary, Swing Bridge, Forth & Clyde Canal

Falkirk Council

NS77NE 65 [NS 7893 7865]

Swing Bridge

Box 6 [B9]

Note: clients, Stirling County Council

B 91752 PO - B 91756 PO: General view

d: 'May 1928'

111. Dalgrain, Swing Bridge, Forth & Clyde Canal [Plate 22]

Falkirk Council

NS98SW 20 [NS 9122 8187]

Swing Bridge

Box 6 [B10, B10A]

B 91757 PO - B 91758 PO: 'Dalgrain'. Distant view and view of old Forth & Clyde bascule bridge
n.d.

B 91759 PO - B 91763 PO: Views of cofferdam, piling and temporary bridge
d: '11th Oct. 1933'

B 91764 PO - B 91766 PO: Views of deck of cellular foundation shuttered for concreting and laying concrete in progress. Roller path suspended in position.
d: '1933'

B 91767 PO - B 91768 PO: 'Dalgrain Bridge. Stirling County Council. Centre pivot'
d: '15/1/34'

B 91769 PO - B 91771 PO: 'Dalgrain'. View of completed bridge in closed position
d: '1934'

B 91772 PO: View of part of bridge turning mechanism
n.d.

B 91773 PO - B 91775 PO: 'Stirling C[ounty] C[ouncil] Dalgrain Swing bridge...'. Deck repairs
n.d.

n.d.

112. Falkirk, Camelon Road Swing Bridge, Forth & Clyde Canal

Falkirk Council

NS88SE 110 [NS 8756 8028]

Swing Bridge

Box 6 [B30]

B 91832 PO - B 91839 PO: 'Job No. 318 Swing Bridge Camelon...', repairs to existing bridge
d: '1956'

Note: photographed by W Ralston, Glasgow

GRANGEMOUTH

113. Grangemouth Refinery
Falkirk Council
NS98SW 10 [NS 94 81]
Oil Refinery

Box 20 [S27]

C 88087 PO: 'Storage tanks Grangemouth Job No 981' General view
d: '7/11/23'

C 88088 PO: 'Storage tanks Grangemouth Job No 981' Storage tank interior during construction
d: '7/11/23'

114. Grangemouth, Canal Street, Bridge

Falkirk Council
NS98SW 18 [NS 921 823]
Lifting Bridge
Box 2 [A18]

B 90457 PO - B 90458 PO: General view of completed bridge (Werkspoor type) on Forth & Clyde Canal
n.d.

115. Grangemouth, Harbour & Docks Swing Bridge

Falkirk Council
NS98SW 17 [NS 926 804]
Swing Bridge
Box 6 [B35]

Note: photographed by W Ralston, Glasgow

B 91863 PO: 'Forth Ports Authority Grangemouth No.2 Swing Bridge...Job No. 244/70'. View of assembled bridge in Works
d: '1971'

B 91864 PO - B 91867 PO: 'Forth Ports Authority Grangemouth No.2 Swing Bridge...Job No. 244/70'. View of partially assembled bridge on site
d: 'May 1971'

116. Grangemouth, Scottish Dyes

Falkirk Council
NS98SW 22 NS 9 8
Chemical Works (producing dyes)
Box 17 [L21]

C 87718 PO - C 87725 PO: 'Progress'
d: 'April/March 1927'

C 87726 PO - C 87730 PO: 'G Building'
d: 'Aug. 1929'

117. Grangemouth, South Bridge Street, Junction Basin Swing Bridge

Falkirk Council
NS98SW 19 [NS 923 822]
Swing Bridge
Box 6 [B22]

B 91809 PO - B 91811 PO: General views of swing bridge in closed position
n.d.

Note: photographed by Dux Engraving Co., Glasgow

B 93403 PO: General view, retouched photograph
d: ?1890s

118. Polmont, Westquarter, Nobel Works, Swing Bridge

Falkirk Council
NS97NW 58 [NS 91 78]
Swing Bridge
Box 6 [B19]

B 91792 PO - B 91795 PO: 'Imperial Chemical Industries Ltd. Nobel's Factory Westquarter...Polmont Bridge'. View of bridge (**B 91794 PO - B 91795 PO** are Photostats)

d: '18th April 1930'

SUTHERLAND

CREICH

119. Bonar Bridge, Old Bridge

Highland Council
NH69SW 62 1 [NH 609 915]
Road Bridge
(see also site 107)

Box 10 [F40]

B 93403 PO: General view, retouched photograph
d: ?1890s

LAIRG

120. Lairg Hydro-electric Generating Station

Highland Council
NC50NE 91 [NC 575 069]
Power Station
Box 21

C 88254 PO - C 88258 PO: ?Lairg Power Station under construction, '...[Job] 514'
d: '1957'



Plate 23: Forth Road Bridge: the base section of the upstream tower, North Pier, leaving Sir William Arrol and Company's works, Dalarnock, Glasgow, June 1960 (W Ralston negative number 60/355G) (C87198 PO, item 122).



Plate 25: Forth Road Bridge: view from south overlooking the working site adjacent to South Queensferry, September 1960. The construction causeway can be seen clearly in the middle distance. The coils of temporary construction cable visible in the foreground were provided by Bruntons of Musselburgh, whose wire rope works closed in 1997 (W Ralston negative number 60/643/1) (C 87217 PO, item 122).

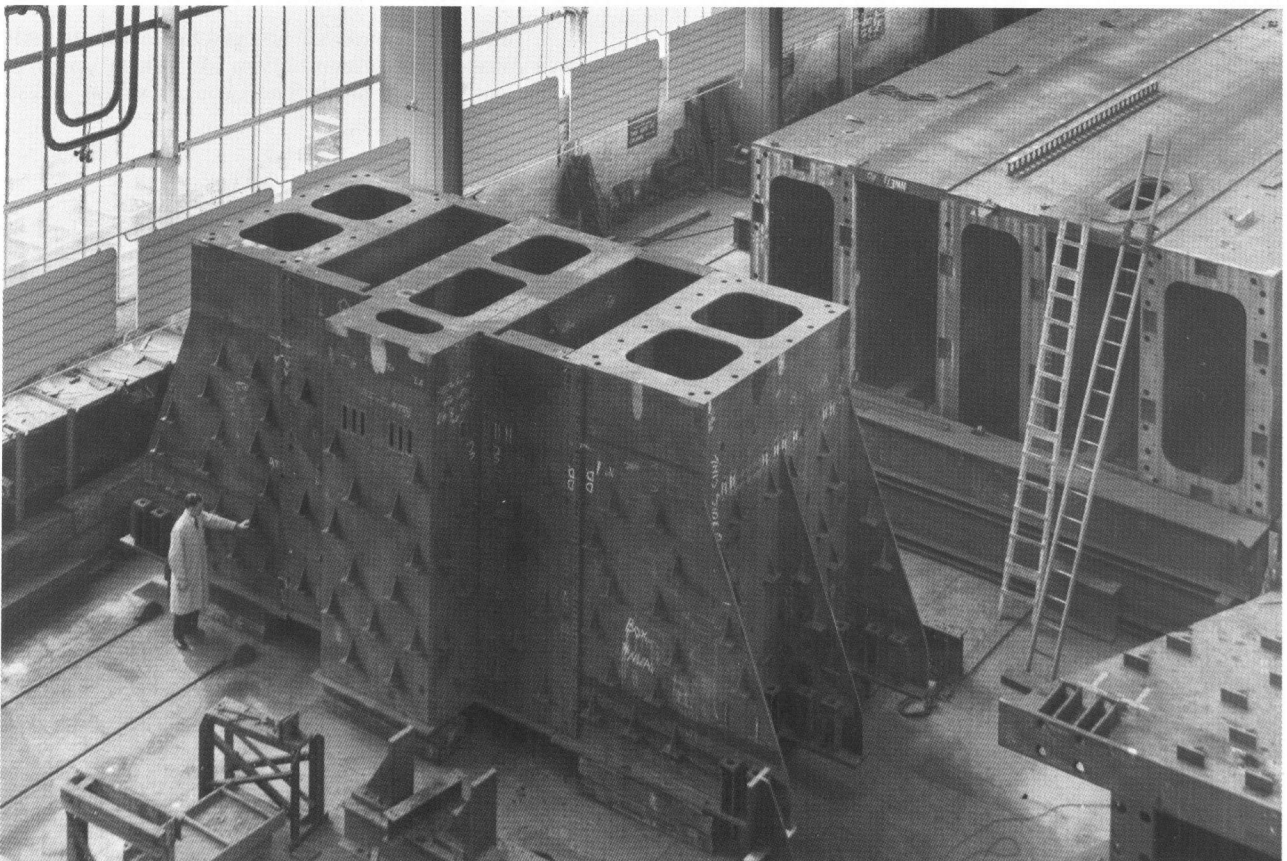


Plate 24: Forth Road Bridge: tower base sections and boxes in Dalmarnock works, 1960 (W Ralston negative number 60/260B) (C 87204 PO, item 122).

WEST LoTHIAN

DALMENY

121. The Forth Bridge [Plate 4]

City of Edinburgh Council
NT17NW 70 [NT 1390 7790]

Railway Bridge

Box 21 [F49]

C 88156 PO: Railway Bridge. General view of Forth Bridges, road bridge under construction

d: 1962

Photographed by W Ralston, Glasgow

122. Forth Road Bridge [Plates 23, 24 and 25]

City of Edinburgh Council
NT17NW 171 [NT 124 782]

Road Bridge

C 62333 - C 62334: Copy of Ordnance Survey Map

d: pre-1958; copied 1958

MS 744/7/3: The Forth Road Bridge Specification and elements fabricated by

Arrol's

1 sheet, Typescript

n.d.

DC 26100: Section

Insc : 'Forth Road Bridge'

d : '20th Century'

Ink on linen (753 x 1754)

Box 13 [F49]

C 87165 PO - C 87289 PO: Bridge under construction

d: c.1960/61

Box 14 [F40]

C 87290 PO - C 87351 PO: Bridge under construction

d: c. 1960/61

Box 21 [F49]

C 88274 PO - C 88275 PO: Sections under assembly in Dalmarnock Works

d: 1960

C 88276 PO/CN - C 88277 PO/CN: Forth Road bridge, 'Machinery for cable

wrapper' in Dalmarnock Works

d: 1962

Note: photographed by W Ralston Ltd, Glasgow

Box 22 [F49]

Note: photographed by W Ralston, Glasgow

C 88279 PO/CN; C 88282 PO/CN: Forth Road bridge, ?Machinery in

Dalmarnock Works

d: 1961

C 88280/CN/PO - C 88281/PO: General view of Forth Bridges, road under construction

d: 1962

C 88283 PO/CN: Road Bridge 'Driving M[achinery for ferry for FRB] in

Dalmarnock Works

d: 1961

Box 23

C 88300 PO/CN: View of cable anchor block area

d: early 1960s

Note: photograph damaged

123. Queensferry, Hawes Pier, White Light

City of Edinburgh Council
NT17NW 172.1 [NT 1358 7865]

Beacon

Box 14 [K12]

C 87399 PO: View looking north

n.d. but pre-1952

Note: photographed by Francis Caird Inglis, Rock House, Calton Hill, Edinburgh

KIRKLISTON

124. Birdsmill Railway Bridge

West Lothian Council
NT17SW 99 [NT 1068 7124]

Railway Bridge

Box 9 [E68]

Note: 'job No. 2330', photographed by W Ralston Ltd, Glasgow

B 93239 PO - B 93240 PO: View of skew bridge in Dalmarnock Works

d: 1970

B 93241 PO - B 93242 PO: View of skew bridge on site, jacking

d: 1970

B 93243 PO - B 93246 PO - B 93250 PO; B 93255 PO - B 93256 PO: Views of

bridge site

d: 1970

B 93251 PO - B 93254 PO: Details of bridge 'anchor'

d: 1970

WIGTOWNSHIRE

STRANRAER

125. Stanraer, Ross Pier, Ro[ll on]-Ro[ll off] Bridge

Dumfries & Galloway
NX06SE 95 [NX 060 612]

Ferry Terminal Bridge

Box 21 [T2]

C 88157 PO/CN - C 88174 PO/CN: Bridge and gangway under construction
d: '1979'

C 88175 PO/CN - C 88189 PO/CN: 'Subject: Ro/Ro Bridge Stran[raer],

Clients: B[ritish]/Rail...Job No: 21769'

d: '1979'

C 88190 PO/CN - C 88205 PO/CN: Bridge under construction and on completion

d: '1979'

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Selected Technical Glossary of terms contained in the catalogue

ACCUMULATOR. A cylindrical reservoir used for maintaining a constant pressure (pneumatic or hydraulic) by the use of a weighted ram.

BASCULE BRIDGE. A lifting bridge which is hinged and counterweighted on the bank. These can be manually operated or more normally, power operated (e.g. Werkspoor type).

BIFURCATION. A split length of pipe producing a 'Y'-shaped length for dispersal of fluid to its destinations.

BOW-STRING GIRDER. A type of arched bridge where the horizontal thrust is taken by a tie girder linking the two ends of the arch.

BOX-FLAP DOCK GATE. A flat dock gate with a horizontal keel and pivoting on horizontal bearings.

BRACING. Secondary supporting members between main members of a structure.

CAISSON. Its several forms fall into the two main categories of 'Dock-gate' and 'Foundation' caissons. The 'Dock-gate' variety is a caisson closing the entrance to a dock. This can take the form of a 'Floating' caisson, where air is pumped into the structure creating sufficient buoyancy for it to be floated into the required position. An alternative form is the 'Sliding Caisson', where the dock is opened by means of the caisson being withdrawn into a chamber or rebate in the dock entrance. The other main category is the 'Foundation' caisson, which is a structure within which excavation is carried out, after which it is usually filled with stone or concrete. (see also Medical Lock De-Compression Chamber)

CANTILEVER. A beam supported at one end.

CANTILEVER BRIDGE. A bridge where the cantilever spans are arranged around piers or from abutments (see also Constrained Cantilever).

CANTILEVER CRANE. A crane where the lifting beam is cantilevered across the tower.

COFFERDAM. A temporary dam allowing work within a usually submerged area.

CONSTRAINED CANTILEVER BRIDGE. A cantilever bridge where the restraining moment is provided within the abutment.

COUNTERWEIGHT PIT. A void accommodating moving counterweights (e.g. of a Bascule bridge).

CROSSHEAD. A sliding bearing allowing transition of reciprocating to rotary motion.

CUTWATER. A shaped pier foundation which reduces pressure/drag of flowing water.

DECK. A bridge floor.

DERRICK. A type of crane using a post and jib principle.

DOCK-GATE CAISSON. See caisson

FLAME HARDENING. The hardening of metal by means of intense localised heat.

FLOATING CAISSON. See caisson

FOUNDATION CAISSON. See caisson

GIANT CANTILEVER CRANE. A large capacity crane in which the jib structure is cantilevered across a series of rollers on a circular bearing path supported on a tower.

GIMBAL BEARING. A bearing giving rotational movement about more than one axis.

GOLIATH CRANE. A travelling crane incorporating a portal frame.

HAMMERHEAD CRANE. A crane with a vertical tower carrying a horizontal jib (forming a hammer-head shape). This term is often interchanged with cantilevered crane.

KEEL. A major continuous structural member along the centreline of the bottom of a floating caisson, ship etc.

LAUNCHED IN (with reference to bridge). When bridge elements are built on the bank of a watercourse and moved/ floated into position.

LEAF. In bridge terms, a portion of the deck being lifted.

LEVEL LUFFING CRANE. A crane with its jib hinged at the foot, so designed to allow the load to stay at the same height when the jib is moved. Usually associated with ship-building and dock-side work.

LEVELLING SHIMS. Steel plates filling a gap which brings a structure to the required level.

MEDICAL LOCK DE-COMPRESSION CHAMBER. Used for decompressing over a period of time those who have been working underground (e.g. in Foundation Caissons) in compressed air.

NOSE END. Opposite of *TAIL END* (of a bridge etc.).

OIL CAKE PRESS. A press for producing cattle food from linseed oil.

OILAUIC PRESS. An oil hydraulic press (as opposed to water hydraulic, which is no longer in use).

OVERHEAD TRAVELLING CRANE (or O.T.C.). Sometimes a manually or (nowadays more usually) electrically powered hoist on a mobile crab mounted on a beam which in turn travels longitudinally between two girder-mounted parallel rails, and often found above workshops and industrial buildings (e.g. power stations).

PLATE EDGE MILLING MACHINE. A machine used for the removal of metal by means of a rotating tool in heavy plate fabrication.

QUADRANT GIRDER. The segmental portion of a girder carrying the rolling track of a rolling lift bridge.

ROLLER PATH. A hardened bed/ track on which rollers move allowing horizontal rotation of crane jib, swing bridge etc.

ROLLER RING. Rollers which, running on a Roller Path, allow the horizontal rotation of swing bridges, cranes etc.

ROLLING LIFT BRIDGE. A cantilevered/ Bascule bridge with segmental track (at its Tail End) which rolls on a flat bearing.

ROTARY PLANING MACHINE. A machine used to manufacture Roller Paths, where the work is stationary and the cutting tool rotates.

SHEET PILING. A barrier of interlocking steel members driven vertically into the ground, often used in cofferdam construction.

SHIM. A steel plate filling a gap.

SKEW BRIDGE. A bridge whose span is oblique to the gap.

SKIDDING. A method of moving a heavy object using skids (such as lengths of wood, metal etc.).

SLIDING CAISSON. See Caisson.

SLIP. A slipway.

STEPPING. The setting of an object into its operational position.

SUSPENSION BRIDGE. A bridge where the deck is supported via suspenders from cables in a parabolic form, the cables in turn being supported on towers and anchored at each end.

SWING BRIDGE. A bridge that opens and closes in a horizontal plane.

TAIL END. Usually the hinged end of a lifting bridge (opposite of *NOSE END*).

TEST FRAME. A frame onto which items being load-tested are positioned.

TILTING WEIR. A gate across a watercourse which opens and closes by tilting about its bottom edge automatically with raising and lowering water levels.

TOWER CRANE. A crane incorporating a tower to raise its operating height.

TRESTLE. A supporting structure, often temporary.

TRUNNION PIN. A stationary, cylindrical element within a bearing around which moving parts rotate. A fundamental part of a bearing in cranes and moving bridges.

TURBO GENERATOR. A combined piece of equipment incorporating a turbine driving an electrical generator.

VALVE HOUSE. Where devices for controlling the flow of fluids are housed.

WELDING MANIPULATOR. A piece of temporary equipment which permits the arrangement of a piece of work in the best position for welding.

Appendix A

Structures Listed by Arrol Project Number

Project Number	Name of Structure	Gaz. No.	Appox Date	Class of Structure	Council Area
A 1	Alloa Bridge	13	ND	Railway Bridge	Clackmannan
A 16	Glasgow, Great Western Road, Boulevard Bridge	75	1930	Lifting Bridge	Glasgow, City of
A 17	Glasgow, Balmore Road, Lambhill Bridge	55	1925	Lifting Bridge	Glasgow, City of
A 18	Grangemouth, Canal Street, Bridge	114	ND	Lifting Bridge	Falkirk
A 19	Hungryside Bridge	49	ND	Lifting Bridge	Glasgow, City of
A 20	Peterhead Harbour, Bridge Street, Bridge	1	1952	Lifting Bridge	Aberdeenshire
A 20	Glasgow, Bearsden Road, Forth & Clyde Canal, Temple Bridge	70	1932	Lifting Bridge	Glasgow, City of
A 31	Twechar, Forth & Clyde Canal, Bridge	21	1960	Lifting Bridge	Dumbarton & Clydebank
B 1	Fort Augustus, Caledonian Canal, Swing Bridge	36	1932	Swing Bridge	Highland
B 2	Laggan Swing Bridge, Caledonian Canal	42	1932	Swing Bridge	Highland
B 3	Aberchalder, Caledonian Canal, Swing Bridge	35	1932	Swing Bridge	Highland
B 4	Inverness, Caledonian Canal, Muirtown Swing Bridge	37	1938	Swing Bridge	Highland
B 4	Inverness, Caledonian Canal, Tomnahurich Swing Bridge	38	1937	Swing Bridge	Highland
B 5	Banavie, Caledonian Canal, Swing Bridge	39	1935	Swing Bridge	Highland
B 6	Inverness, Caledonian Canal, Muirtown Swing Bridge	37	1938	Swing Bridge	Highland
B 7	Clydebank, Kilbowie, Forth & Clyde Canal, Bridge	23	1930	Swing Bridge	Dumbarton & Clydebank
B 8	Glasgow Bridge, Forth & Clyde Canal	48	ND	Swing Bridge	Glasgow, City of
B 9	Castleary, Forth & Clyde Canal, Swing Bridge	110	1928	Swing Bridge	Falkirk
B 10	Dalgrain, Forth & Clyde Canal Swing Bridge	111	1933	Swing Bridge	Falkirk
B 11	Bonnybridge, Forth & Clyde Canal Swing Bridge	109	ND	Swing Bridge	Falkirk
B 12	Kirkintilloch, Townhead, Forth & Clyde Canal Bridges	20	1932	Swing Bridge	Dumbarton & Clydebank
B 19	Polmont, Westquarter, Nobel Works, Union Canal Swing Bridge	118	1930	Swing Bridge	Falkirk
B 22	Grangemouth, South Bridge Street, Junction Basin Swing Bridge	117	ND	Swing Bridge	Falkirk
B 30	Camelon Road Swing Bridge, Forth & Clyde Canal	112	1956	Swing Bridge	Falkirk
B 35	Grangemouth, Harbour and Docks, Swing Bridge	115	1971	Swing Bridge	Falkirk
E 1	Glasgow, Central Station Railway Bridge	57	1966	Railway Bridge	Glasgow, City of
E 2	Glasgow, Central Station Railway Bridge	58	1905	Railway Bridge	Glasgow, City of
E 4	Dundee, Tay Bridge	3	ND	Railway Bridge	Angus
E 5	Glasgow, Union Railway Bridge	64	1902	Railway Bridge	Glasgow, City of
E 9	Airdrie, Deedes Street Bridge	84	ND	Railway Bridge	North Lanarkshire
E 11	Blantyre, Railway Bridges	44	1931	Railway Bridges	South Lanarkshire
E 12	Glasgow, Anniesland, Great Western Road, Railway Bridge	68	ND	Railway Bridge	Glasgow, City of
E 16	Montrose, South Esk Viaduct	5	1920	Railway Bridge	Angus
E 65	Ross Junction Bridge, over M74	82	1965	Railway Bridge	North Lanarkshire
E 66	Port Glasgow, Glasgow Road, Railway Bridge	104	1966	Railway Bridge	Inverclyde
E 67	Glasgow, Castlebank Street Railway Bridge	71	1967	Railway Bridge	Glasgow, City of
E 68	Birdsmill Railway Bridge	124	1970	Railway Bridge	West Lothian
F 13	Glasgow, Ballater Street, King's Bridge	69	1932	Road Bridge	Glasgow, City of
F 14	Mid Calder, Road Bridge	87	1924	Road Bridge	West Lothian
F 15	Morrispool Road Bridge	89	ND	Road Bridge	West Lothian
F 17	East Linton, Tyne Bridge	28	1927	Road Bridge	East Lothian
F 19	Balloch, Lomond Bridge	16	ND	Road Bridge	Dumbarton & Clydebank
F 22	Edinburgh, North Bridge	85	1909	Road Bridge	Edinburgh, City of
F 22	Edinburgh, Waverley Station	86	1909	Railway Station	Edinburgh, City of
F 23	Caputh, Victoria Bridge	94	ND	Road Bridge	Perthshire & Kinross
F 24	Dalginross Bridge	93	ND	Road Bridge	Perthshire & Kinross
F 25	Paisley, White Cart Bridge	103	ND	Road Bridge	Renfrewshire
F 30	Selvieland Farm, Access Bridge	106	1931	Road Bridge	Renfrewshire
F 31	Montrose, New Bridge	4	1930	Road Bridge	Angus
F 40	Bonar Bridge, Old Bridge	119	1890	Road Bridge	Highland
F 42	Blacksboat Road Bridge	90	ND	Road Bridge	Moray
F 43	Glen Quoich, Road Bridge	41	1955	Road Bridge	Highland
F 47	Boat O'Brig, New Bridge	10	1956	Road Bridge	Moray
F 47	Boat O'Brig, Old Bridge	11	1956	Road Bridge	Moray
F 49	Forth Bridge	121	1962	Railway Bridge	City of Edinburgh
F 49	Forth Road Bridge	122	1960	Road Bridge	City of Edinburgh
F 52	Bonhill, New Road Bridge	17	1986	Road Bridge	Dumbarton & Clydebank
F 52	Bonhill, Old Road Bridge	18	1961	Road Bridge	Dumbarton & Clydebank
F 57	Raith Cottage, Bridge [M74]	81	1967	Road Bridge	North Lanarkshire
F 59	White Cart Bridge [M8]	102	1967	Road Bridge	Inverclyde
F 60	Powburn Bridge [M74]	45	1967	Road Bridge	South Lanarkshire
F 61	Maryville Bridge [M74]	46	1967	Road Bridge	North Lanarkshire
F 65	Craigellachie New Bridge	9	1970	Road Bridge	Moray
F 66	Drygrange Bridge (New)	108	1972	Road Bridge	Scottish Borders
G 4	Methil Harbour	34	1925	Dock Gate	Fife
G 10	Greenock, Garvel Dock	97	1932	Dock	Inverclyde
G 23	Burntisland, Dock Gates	31	1980	Dock Gates	Fife
H 2	Clydebank, Elderslie Shipyard	22	1932	Shipyard	Dumbarton & Clydebank
H 3	Troon, Ailsa Shipyard	6	ND	Shipyard	South Ayrshire
H 9	Peterhead Harbour, Dry Dock	2	1953	Dry Dock	Aberdeenshire
H 10	Greenock Dock	96	1966	Dock	Inverclyde
J 1	Rosyth, HM Dockyard	32	1917	Giant Cantilever Cranes	Fife
J 19	Glasgow, 18 Clydebrae Street, Govan Graving Docks	72	1960	Graving Docks	Glasgow, City of
K 2	Glasgow, Plantation Quay	79	ND	Quay	Glasgow, City of
K 3	Dumbarton, Shipyard	19	1920	Shipyard	Dumbarton & Clydebank
K 12	Queensferry, Hawes Pier, White Light	123	1950	Beacon	City of Edinburgh
K 14	Clydebank, John Brown's Shipyard	24	1952	Wharf Reconstruction	Dumbarton & Clydebank

K 15	Clydebank, John Brown's Shipyard	24	1952	Shipyard	Dumbarton & Clydebank
K 17	Clydebank, John Brown's Shipyard	24	1958	Wharf Reconstruction	Dumbarton & Clydebank
L 5	Glasgow, 153-239 Elliot Street, Engineering Works	53	1944	Engineering Works	Glasgow, City of
L 19	Dalmuir, Wm Beardmore & Co, Shipyard	25	ND	Shipyard	Dumbarton & Clydebank
L 21	Grangemouth, Scottish Dyes	116	1927	Dyeworks	Falkirk
L 22	Fort William, Lochaber Aluminium Smelter	40	1929	Aluminium Works	Highland
L 32	Renfrew, Braehead Power Station	105	1949	Power Station	Renfrewshire
L 38	Rosyth, HM Dockyard	32	1958	Dockyard	Fife
L 48	Motherwell, Ravenscraig Works	51	1956	Steel Works	North Lanarkshire
L 56	Cockenzie Generating Station (Coal-fired)	29	1964	Power Station	East Lothian
L 57	Longannet Power Station (Coal-fired)	33	1968	Power Station	Fife
L 61	Dounreay Nuclear Power Establishment	12	1968	Scientific Research Establishment	Highland
L 62	Inverkip, Power Station and Jetty	101	1975	Power Station [Oil-fired]	Inverclyde
L 64	Torness Nuclear Power Station	27	1980	Power Station	East Lothian
N 3	Glasgow, Dalmarnock Road, Dalmarnock Power Station	60	ND	Power Station	Glasgow, City of
N 6	Glasgow, North British Diesel Engine Works	78	1962	Giant Cantilever Fitting-out Crane	Glasgow, City of
N 10	Greenock, Scott's Engine Works	100	1911	Engine Works	Inverclyde
N 15	Clydebank, John Brown's Shipyard	24	1958	Tower Crane	Dumbarton & Clydebank
N 16	Clydebank, John Brown's Shipyard	24	1958	Giant Cantilever Crane	Dumbarton & Clydebank
N 20	Rosyth, HM Dockyard	32	1917	Giant Cantilever Crane	Fife
N 28	Clydebank, John Brown's Shipyard	24	1910	Shipyard	Dumbarton & Clydebank
N 35	Clydebank, John Brown's Shipyard	24	1947	Tower Cranes	Dumbarton & Clydebank
N 42	Clydebank, John Brown's Shipyard	24	1951	Crane	Dumbarton & Clydebank
N 43	Glasgow, Govan, Giant Cantilever Crane	74	1911	Giant Cantilever Fitting-out Crane	Glasgow, City of
N 44	Clydebank, John Brown's Shipyard	24	1953	Cranes	Dumbarton & Clydebank
N 49	Greenock, James Watt Dock	99	1960	Giant Cantilever Fitting-out Crane	Inverclyde
N 62	Gare Loch, Clyde Submarine Base	26	1970	Naval Establishment	Dumbarton & Clydebank
P 1	Glenlee Power Station (Hydro-electric)	43	1933	Power Station and Pipeline	Dumfries & Galloway
P 4	Stonebyres Power Station & Pipeline	83	1927	Power Station [Hydro-electric]	South Lanarkshire
P 6	Inverglas, Loch Sloy Power Station (Hydro-electric)	14	1949	Power Station & Pipeline	Clydebank & Dumbarton
P 6	Loch Sloy Dam	15	1949	Dam	Clydebank & Dumbarton
R 19	Addiewell, Shale Bing	88	1909	Shale-oil Works	West Lothian
R 56	Rosyth, HM Dockyard	32	1952	Pump	Fife
R 59	Rosyth, HM Dockyard	32	1954	Lifting Apparatus	Fife
R 60	Rosyth, HM Dockyard	32	1954	Loading Jack	Fife
R 87	Motherwell, Ravenscraig Works	51	1968	Steel Works	North Lanarkshire
S 2	Glasgow, Custom House Quay	59	1945	Quay	Glasgow, City of
S 3	Motherwell, Colville's Pipe Bridge	50	ND	Pipe Bridge	North Lanarkshire
S 4	Glengarnock, Coal Pits	7	ND	Coal Mines	North Ayrshire
S 5	Burntisland, Aberdour Road, Aluminium Works	30	1932	Alumina Works	Fife
S 9	Hoy, Lyness, Royal Navy Oil Terminal	91	19130	Oil Terminal	Orkney Islands
S 9	Hoy, Lyness, Royal Navy Oil Terminal	92	1914+	Oil Tanks	Orkney Islands
S 10	Bothwell Sewage Works	80	ND	Sewage Works	North Lanarkshire
S 16	Glasgow, Kelvin Hall	63	1930	Public Building	Glasgow, City of
S 23	Glasgow, Govan, Fairfield Shipyard & Engine Works	73	1970	Shipyard	Glasgow, City of
S 27	Grangemouth, Refinery	113	1923	Oil Refinery	Falkirk
S 36	Glasgow, Meadowside Quay, Meadowside Granaries	77	ND	Granaries	Glasgow, City of
S 42	Glasgow, Govan, Fairfield Shipyard & Engine Works	73	ND	Shipyard	Glasgow, City of
T 2	Stranraer, Ross Pier, Ro Ro Bridge	125	1979	Road Bridge (Ro Ro bridge for ferries)	Dumfries & Galloway
- -	Bonar Bridge, New Bridge	107	-1973	Road Bridge	Highland
- -	Erskine Bridge	95	1967	Road Bridge	Renfrewshire
- -	Glasgow, Albert Bridge	54	1870	Road Bridge	Glasgow, City of
- -	Glasgow, Blochairn Road, Blochairn Steel Works	56	1922	Steel Works	Glasgow, City of
- -	Glasgow, Dunn Street, Sir William Arrol's Works (Dalmarnock Iron Works)	67	1969	Engineering Works [Arrol]	Glasgow, City of
- -	Glasgow, General Terminus Quay	61	ND	Quay	Glasgow, City of
- -	Glasgow, Harbour Tunnel, Tunnel St to Plantation Pl	62	1976	Lock Gates	Glasgow, City of
- -	Glasgow, Linthouse Engine Works, Shipyard	76	1926	Shipyard	Glasgow, City of
- -	Glasgow, Pollokshaws Road Bridge	52	1930	Road Bridge	Glasgow, City of
- -	Glasgow, Rigby Street, Parkhead Crane Works	66	1969	Engineering Works [Arrol]	Glasgow, City of
- -	Glasgow, Stobcross Quay, Finnieston Cantilever Crane	65	ND	Giant Cantilever Fitting-out Crane	Glasgow, City of
- -	Greenock, James Watt Dock	98	1963	Dock	Inverclyde
- -	Hunterston 'A' Nuclear Generating Station	8	1961	Power Station	North Ayrshire
- -	Lairg Power Station	120	1957	Power Station [Hydro-Electric]	Highland
- -	Mossend, Wm Beardmore & Co Ltd, Steelworks	47	ND	Steel Works	North Lanarkshire

Appendix B

List of Box Numbers, and Associated Print Numbers

Box 1	B90353/PO - B90433/PO
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Box 10	B93315/PO - B93421/PO
Box 11	B93422/PO - B93500/PO; C87001/PO - C87095/PO
Box 12	C87096/PO - C87164/PO
Box 13	C87165/PO - C87289/PO
Box 14	C87290/PO - C87399/PO
Box 15	C87400/PO - C87585/PO
Box 16	C87586/PO - C87703/PO
Box 17	C87704/PO - C87821/PO
Box 18	C87822/PO - C87920/PO
Box 19	C87921/PO - C88022/PO
Box 20	C88023/PO - C88155/PO
Box 21	C88156/PO - C88827/PO
Box 22	C88278/PO - C88287/PO
Box 23	C88288/PO - C88387/PO
Box 24	C88388/PO - C88439/PO; C62001 - C62006



Royal
Commission on the
Ancient and
Historical
Monuments of
Scotland

The purpose of this catalogue is to assist access to the Scottish material within the Sir William Arrol Collection, whose varied and fragile nature render it unsuitable for free-range consultation in the National Monuments Record of Scotland (NMRS). The catalogue is arranged primarily as a site-based gazetteer listing associated photographs, manuscript material and drawings together with published material deposited in the NMRS library. A short glossary of technical terms has also been added.

