

A LENS ON VANCOUVER'S PAST 6

WALTER FROST AND BEVRIJDINGSDAG
(1945-1955)

FLORIS VAN WEELDEREN

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Any errors and omissions are completely mine - Floris van Weelderen

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A LENS ON VANCOUVER'S PAST: Walter Frost's Holland America Line (1920-1975)

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A LENS ON VANCOUVER'S PAST 4: Walter Frost and the Silent Service (1947-1970)

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GATEWAY TO THE PACIFIC: Prominent Piers & Wharves in Vancouver

HAL – Holland-America Line

KNSM – Royal Netherlands Steamship Company

KPM – Royal Packet Navigation Company

KRL – Royal Rotterdam Lloyd

SMN – Netherlands Steamship Company

VAS – Radio callsign of the former Vancouver Harbour Marine Communications and Traffic Services (MCTS) Centre

DEDICATION

This project is dedicated to:

My grandparents – **Opa** and **Oma van Weelderen** – and great grandfather **Oude Opa Gijlstra**.

Opa and Oma van Weelderen lived in the port city of ROTTERDAM in the Netherlands. Opa (Anton Wilhelm Hendrik) worked for W. van Driel Steamboat & Transport, the oldest Rhine shipping company of bulk goods; Oma (Jacoba Christina) was a primary school teacher; and Oude Opa (Douwe) was the Nederlandse Spoorwegen (Dutch Railways) Station Master in ARNHEM.

In May 1940, Nazi Germany invaded the Netherlands and bombed ROTTERDAM. The city center was flattened.

Four years later in March 1944, 37-year-old Opa received orders to report to the local police station at 6 a.m. for transport to a Nazi forced labour camp in Germany. (Ironically, the authorities indicated that he could safely leave his bicycle at the station.) Opa refused and instead went into hiding. After being captured for a second time in December, Opa was transported to the Nazi barracks in EDE. Next and final stop should have been Nazi Germany.

Upon learning of Opa's detention, Oude Opa traveled in his railway uniform to EDE where he blustered the Nazis into releasing Opa. It reportedly took three days for Opa to return to Oma in ROTTERDAM; a distance of 100 km, which could be driven in an hour today.

Unfortunately, Opa was forced to hide from the notorious Nazi Gestapo (Geheime Staatspolizei) in his cellar for over five months. Finally on May 5, 1945, Opa was able to come up after the German forces surrendered.

At last, BEVRIJDINGSDAG!



Opa (age 30) and Oma (age 23) van Weelderen
in Rotterdam, September 1937

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ACKNOWLEDGEMENTS

The Port of Vancouver's terminals, wharves and piers sit on the unceded traditional territories of the **Musqueam**, **Squamish**, and **Tsleil-Waututh First Nations**, who relied on the waters of the Burrard Inlet and have a saying "**When the tide goes out, the table is set**" — referring to the abundance of food that came from the inlet.¹

This adventure in researching, documenting, and sharing the life and times of **Walter Frost**, the role of **Port of Vancouver** and gaining a greater understanding of the long-standing relationship between **Canada** and the **Netherlands** would not have been possible without the financial, technical, and moral support of the following people:

- **Adriana Zylmans** on behalf of her parents, the late **Wim** and **Annie Zylmans (van Dongen)**
- **Bjorn Larsson** | Maritime Timetable Images
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- **Erik van der Ven** | President – Dutch-Canadian Liberation Society
- **Heather Gordon** | Chief Archivist – City of Vancouver Archives
- The **van Weelderen** family



Wim and Annie Zylmans (van Dongen)

INTRODUCTION

Using select black & white photographs by the late Walter Frost (1898-1988), this compendium illustrates why May 5, 1945 (Bevrijdingsdag) was the pivotal point in time that led to the long-standing relationship between the Netherlands and Vancouver, even though Vancouver is located on Canada's West Coast.

This compendium also seeks to answer the following questions:

1. Prior to the advent of jet travel in the 1960s, how did post-war Dutch immigrants typically travel to Vancouver?
2. What ships were used to transport Dutch immigrants to Vancouver and return with cargo needed to feed and rebuild the Netherlands?
3. What vessels replaced the many Dutch-flagged merchant ships lost during the Second World War?

WALTER EDWIN FROST

- Walter Edwin Frost was born in Vancouver in 1898. A machinist, he was an avid amateur photographer who lived his entire life in the Terminal City documenting city scenes; ships docking at various piers and wharves; and steam and diesel locomotives and other railway equipment. The eldest of five children, Walter grew up with his sister and brothers in Chinatown (263 Keefer) and then in Grandview-Woodland (1519 William). After the family home was incorporated into the Britannia Community Centre's grounds, he moved into a house built by the brothers (1985 East 6th). A decade later, the consummate bachelor moved into a second house built by the brothers (2347 Wall), which overlooks the waterfront. Mechanically inclined, Walter successfully apprenticed as a machinist before moving on to work as a shipper, helper, carpenter and finally as a school engineer.
- Shortly after the First World War, Walter Frost bought a Kodak roll film camera and began to photograph his city and the ships and trains that carry its life-blood. Never one to have a driver's license, he traveled around Vancouver by bicycle and streetcar with camera in hand. When Walter stopped taking photographs in 1976, he had amassed a collection of 13,369 negatives; developed at home and many stored in old tobacco tins. Fully 75% of his legacy consists of ship photographs documenting all types of maritime traffic in and out of Vancouver over 56 years, including over 90 of post-Second World War Dutch-flagged ships that steamed between the Netherlands and Vancouver.



Walter Edwin Frost (age 17) at the entrance to the Grandview Methodist Church on Venables Street, 1915
(Source: Vancouver Archives, CVA 447-6)

- In 1985, Walter Frost entrusted his extensive collection of prints and negatives to the City of Vancouver Archives. The City exhibited "Terminal City Photographs" in 1986 as a sneak preview to give Vancouverites a glimpse of the rich new collection. It was only fitting that the city should see this collection during Expo 86; Walter's donation was an incredibly special birthday present to his city in its 100th year. The following summer, the Maritime Museum of BC exhibited his work in Victoria. Walter died in Vancouver in 1988 at age 90.

BEVRIJDINGSDAG (DUTCH LIBERATION DAY)

- **Bevrijdingsdag** (Dutch Liberation Day) is the day that the Netherlands celebrate being freed from Nazi occupation after the Second World War. The celebrations take place each year on May 5th, the day after **Dodenherdenking** (Remembering the Dead) that is solemnly commemorated annually on May 4th.

BACKGROUND

- Nazi Germany invaded Poland on September 1, 1939, thus triggering the start of the Second World War. Britain and France gave Germany an ultimatum that expired on September 3rd and, as a result, Britain and the British Commonwealth (including Canada) declared war. But the Netherlands maintained its tradition of neutrality that had saved it from the ravages of the First World War.
- For the next ten months, the Dutch maintained strict neutrality. But the Nazis took no notice and invaded the Netherlands on May 10, 1940. The small Dutch army and navy were no match for the German forces.
- After five days of resistance, the Netherlands surrendered but not before the evacuation of the Dutch royal family to England. From there, Princess Juliana fled to Canada with her two daughters. The surrender was triggered in part by the May 14th bombing of Rotterdam. The German air force bombers zeroed in on the city centre killing over 800 people. Another 85,000 people were left homeless and over 25,000 homes, shops, warehouses, schools and churches were destroyed.



Aftermath of the bombing of Rotterdam, May 1940
(Source: van Weelderen family archives)

VICTORY

- Fast forward to 1945, the Allied forces advanced through Europe and the Nazi regime was all but defeated. However, in retaliation for a railway strike that harmed the German war effort, Germany stopped food shipments to the western Netherlands, resulting in the “Hunger Winter” of 1944-1945. By spring 1945, millions of Dutch civilians faced starvation. The Allies arranged emergency food deliveries, even before the fighting ended.²
- In early April, the First Canadian Army began to clear the Germans starting in the southwest of the country. Often aided by information provided by Dutch resistance fighters, Canadian troops rapidly moved across the Netherlands, recapturing canals and farmland as they drove for the North Sea. Canadians also began to advance in the western Netherlands, which contained the major cities of Amsterdam, Rotterdam and The Hague. British and Canadian forces cleared the city of Arnhem in just two days by fighting a house-by-house battle. Only days later, they cleared Apeldoorn.³
- On May 5, 1945, Lieutenant-General Foulkes (commander of I Canadian Corps) accepted the surrender of Generaloberst Blaskowitz as commander-in-chief of German forces in the Netherlands. Prince Bernhard, acting as commander-in-chief of the Dutch Interior Forces, attended Germany’s surrender.⁴
- Immediately after the capitulation of the German troops in the Netherlands, 350,000 people who had been in hiding, sometimes for long periods of time, left their hiding places. They were not the only ones who took to the roads. By the end of 1945, almost two million people were on their way to a destination somewhere within the

Dutch borders; most returning from Germany.

- The Second World War scarred much of the Netherlands. Air raids had turned cities into skeletons; farmland was flooded due to the destruction of the dikes by the retreating German forces; masses of people returned to find their homes destroyed.



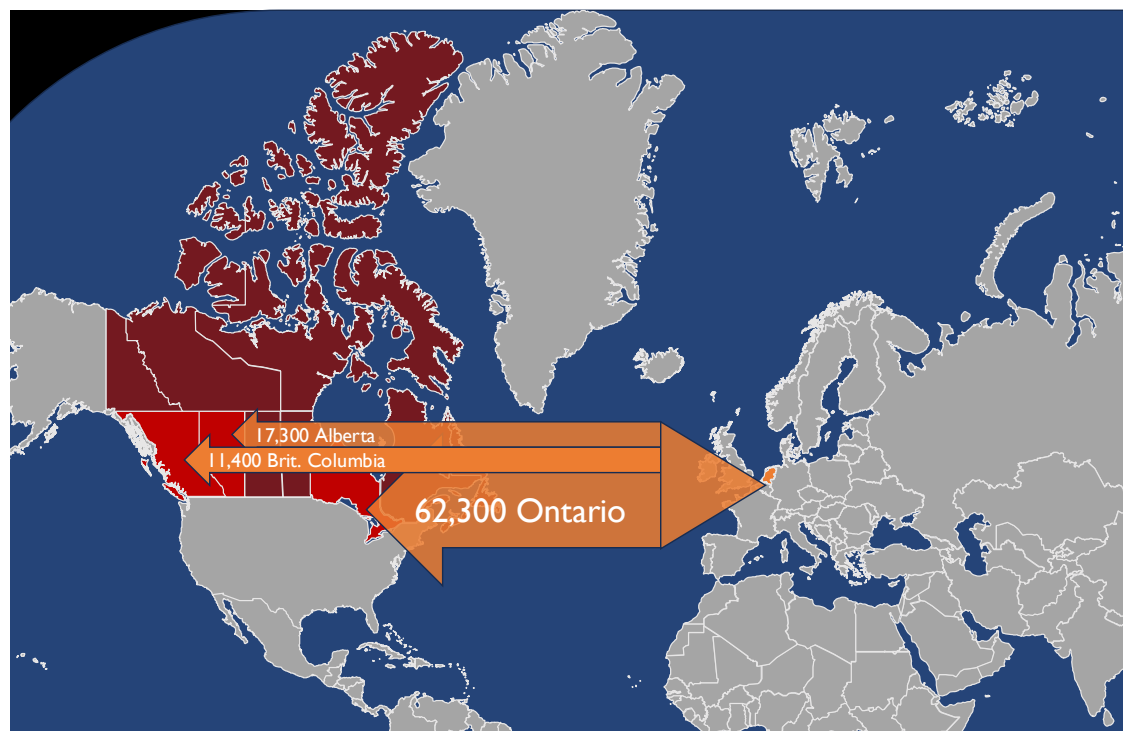
“The Netherlands Rises Again”
(Source: van Weelderen family archives)

EMIGRATE ...

- By 1946, its population of 9.4 million people had a stark choice: emigrate or rebuild. During the first 10 years following Bevrijdingsdag, over 245,000 Dutch people left the Netherlands, which in their view was becoming increasingly overpopulated.⁵
- More than 115,000 people emigrated to Canada between 1946 and 1955 with about 10% eventually making their way west to British Columbia; many settling in the Fraser Valley.⁶

OR REBUILD?

- U.S. Secretary of State George C. Marshall outlined an assistance program for Europe in 1947. In 1948, the U.S. Congress passed the Economic Cooperation Act (or Marshall Plan) which was signed by President Truman. The Marshall Plan provided aid for the larger part in the form of goods. This meant that the European countries did not receive actual dollars but help in kind. Canada (including Vancouver) and the U.S. also shipped lumber, wheat, and other foodstuffs to the Netherlands to help rebuild and feed the country.⁷
- All of the top shipping lines in the Netherlands lost significant portions of their merchant fleets to enemy action during the Second World War: HAL lost two-



Top 3 Canadian Provincial Destinations of Dutch Immigrants (1946-1955)
(Source: Citizenship and Immigration Canada, Statistics Division,
Table 2 - Origin and Destination 1946-1961)

thirds of its fleet⁸; KNSM lost just under two-thirds; KPM lost half⁹; and KRL lost half¹⁰. However, the enormous post-war surplus of Liberty, Victory and C3 ships provided an opportunity to quickly replace these lost ships. This was done with financial help from the Dutch government under the auspices of the Marshall Plan. The surplus vessels were given a new life as Dutch-flagged civilian merchant ships transporting immigrants west and cargo east.

PORT OF VANCOUVER (VAS)



Detail of aerial view of CPR Pier B-C and the M.S. DONGEDYK at the foot of Burrard Street, 1963 (Source: Vancouver Archives, CVA 296-040)

- Canada's largest port extends from Roberts Bank and the Fraser River up to and including Burrard Inlet. Home to 27 major terminals, the Port of Vancouver handles the most diversified range of cargo in North America: bulk, containers, breakbulk, liquid bulk, automobiles, and cruise ship passengers. As our country's gateway to over 170 trading economies around the world, the port handles \$1 of every \$3 of Canada's trade in goods outside of North America enabling the trade of approximately \$200 billion in goods.
- Lumber exports ruled supreme during latter half of the 19th century as sawmills popped up on both the North and South shores of Burrard Inlet. Exports increased significantly with the arrival of the Canadian Pacific Railway (CPR) in 1887 and the opening of the Panama Canal in 1914. Without the canal, ships would have to sail all the way around South America, an additional 8,000 miles. Low freight rates in the early 20th century resulted in Vancouver becoming a more feasible shipping hub to Europe and Asia for bulk commodities such as grain.
- The port's Vancouver waterfront infrastructure has evolved over time. CPR Pier B-C (the current site of Canada Place cruise ship terminal), Ballantyne Pier, Lapointe Pier, and the Vancouver Harbour Commissioners No. 1 Grain Jetty are all locations where Walter Frost took many of his iconic photographs of the Dutch-flagged ships that brought Dutch immigrants to the West Coast and returned with lumber, wheat, and other foodstuffs to help rebuild and feed the Netherlands.

ROUTES WEST



Rotterdam to Vancouver (1946-1955)

IMMIGRANT SHIPS

TECHNICAL DATA

NAME:	M.S. TABINTA
Type:	Combination cargo-passenger liner
Standard:	T-class
Shipyard:	N.V. Nederlandsche Scheepsbouw- Maatschappij, Amsterdam, Netherlands
Hull Number:	202
Tonnage (GRT):	8,156
Tonnage (NRT):	4,898
Length (m):	141.7
Service Speed (kts):	15.0
Propulsion:	Single screw; 1 two-stroke, 8-cyl., Sulzer diesel engine; 7,040 bhp
Owner:	Netherlands Steamship Co.
Cargo Handling:	3 masts, 16 winches (M.M.F.M)
Grain Cube (cu.ft.):	602,840
Bale Cube (cu.ft.):	510,545
Passengers:	1,071
Year Launched:	1930
Year in Service:	1930
Year Retired:	1960
Year Dismantled:	1961

INTERESTING FACTS & FIGURES

IMMIGRANT SHIPS

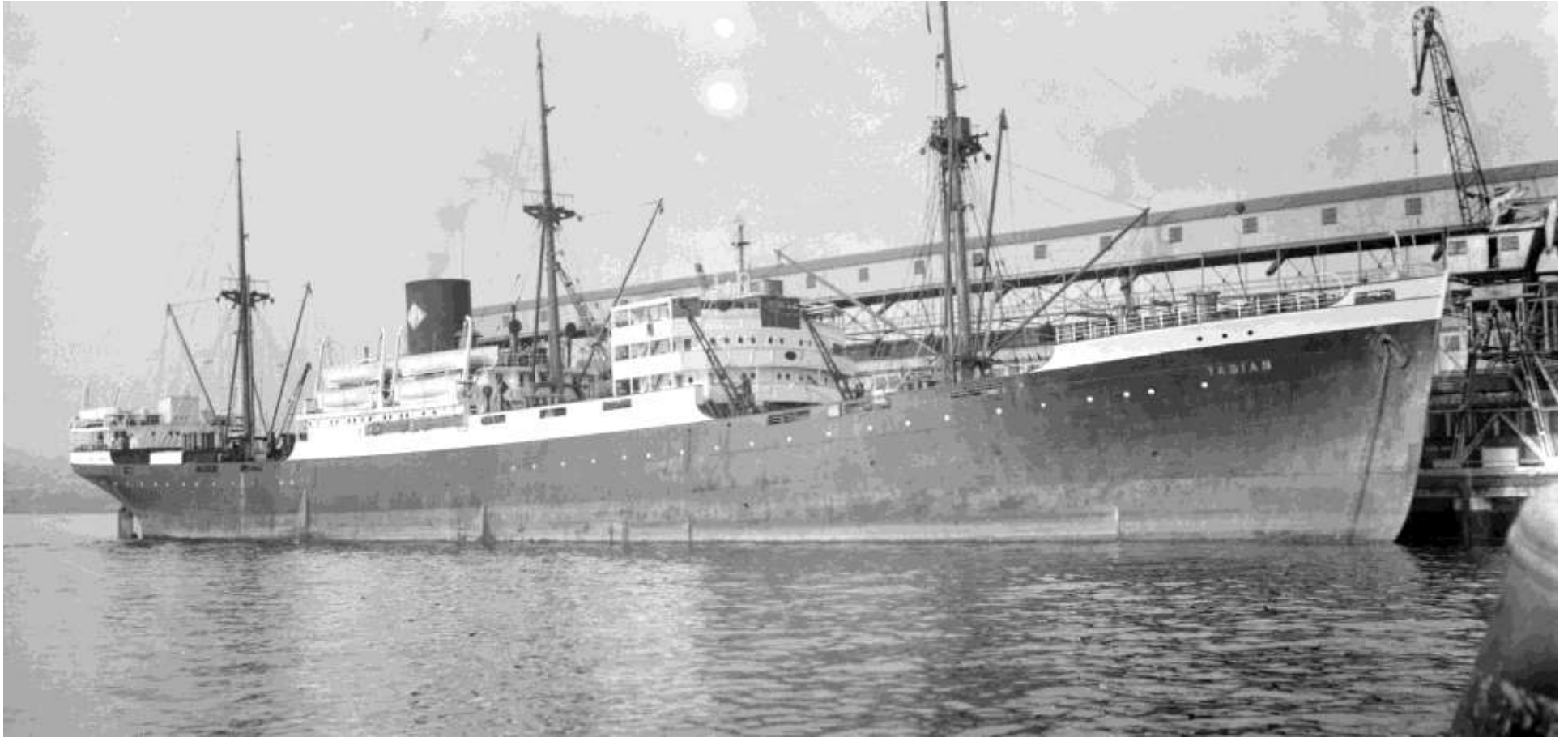
- The transatlantic crossing typically started in the world's largest port of Rotterdam. Over 800 Dutch emigrants would board the ocean liner S.S. NIEUW AMSTERDAM, economy liner S.S. MAASDAM or former troop

transports S.S. WATERMAN, S.S. GROOTE BEER, and M.S. TABINTA.

- Travel times across the Atlantic could take as little as four days or up to twelve days depending on the port of departure, route, type of ship, and weather. During the crossing, ocean swells could be specially turbulent causing extreme sea sickness for the majority of passengers.
- Arriving at Halifax's Pier 21 (Canada's Ellis Island), Quebec City or Montreal, Dutch immigrants were met by voluntary service agencies that cared for their immediate needs and arranged their train travel to their new homes across Canada.
- Although the Netherlands government would only let emigrants take no more than \$190 out of the country, they could take as many possessions with them as they liked; usually stuffed in a 'kist' or huge wooden crate.

THE SHIP

- Sister ship of M.S. TABIAN (pictured), the M.S. TABINTA was chartered by the Netherlands government in 1947 as an emigrant ships to cope with the large-scale level of emigration after the war. In March, TABINTA reportedly carried over 1,000 seamen to New York where they would man 22 former Liberty, Victory and C3 ships purchased from the U.S. by the Netherlands government.¹¹
- In September 1947, TABINTA completed her first voyage from Rotterdam to Montreal bringing over 750 Dutch immigrants to Canada. She made a total of five voyages to Canada in 1948, plus four more in 1949.¹²



Sister ship of the immigrant ship TABINTA, the TABIAN is pictured at Ballantyne Pier on Monday, August 30, 1954. The former troop ships could transport about 800 immigrants or 1,100 military troops (Vancouver Archives, CVA 447-8448, Photographer - Walter E. Frost)

IMMIGRANT TRAINS

TECHNICAL DATA

CPR “COLONIST” PASSENGER TRAIN CARS

A.A.R. Mech. Desig.	PE...e
Kind of Cars:	Colonist, Steel
Car Numbers:	2697 to 2748
Seating Capacity:	59
Length of Car, Inside:	72' 7”
Length of Car, Over Buffer:	82' 5”
Type of Air Conditioning:	None
Year Launched:	1949
Year in Service:	1950
Year Retired:	1968
Year Dismantled:	1979

Source: CPR Official Register of Passenger Train Equipment, January 1952

INTERESTING FACTS & FIGURES

IMMIGRANT TRAINS

- In the first decade of the last century, the population of Canada’s prairie provinces grew by more than 300 percent. By the millions, people left Europe bound for Canada by steamship. Upon arriving in Eastern Canada,

immigrants boarded trains bound for their new homes.

- After trundling roughly 2,800 miles across the rugged Canadian Shield, vast prairies, and over the Rocky Mountains, the immigrant trains would deposit the remaining tired but excited immigrants at Vancouver’s Waterfront Station.

THE PASSENGER COACH

- Most Dutch immigrants would seek the most economical mode of transportation and therefore rode in what came to be known as “colonist” cars. In fact, the Canadian Pacific Railway (CPR) built more than 1,000 colonist cars between the 1880s and 1930s.
- Designed to provide relatively inexpensive long-distance transportation for immigrants, the “colonist” cars were noted for very spartan accommodation. On a typical transcontinental passenger car, travelers would sit, eat, drink and sleep in fine style; however, the “colonist car” offered just the basics: bare wood benches, a pull-down upper berth, a ladies’ room, and kitchenette at one end of the car and a men’s room at the other. Food, blankets, pillows, bedding, and even berth curtains were all available for an extra fee.¹³



CPR "Colonist" Passenger Car #2735 pictured on a siding in Vancouver on Saturday, May 17, 1952
(Vancouver Archives, CVA 447-1716, Photographer - Walter E. Frost)

COMBI-LINERS

TECHNICAL DATA

<i>NAME:</i>	<i>M.S. DALERDYK</i>
Type:	Combination cargo-passenger liner
Standard:	D-class
Shipyard:	N.V. Wilton's Machinefabriek & Scheepswerf, Schiedam, Netherlands
Hull Number:	322
Tonnage (GRT):	10,829
Tonnage (NRT):	6,390
Length (m):	155.2
Service Speed (kts):	16.0
Propulsion:	Twin screws; 2 6-cyl., 2-stroke Sulzer diesel engines; 8,400 apk
Owner:	Holland-America Line
Cargo Handling:	2 masts, 14 derricks (M.K.K.F.K.M.K)
Grain Cube (cu.ft.):	570,787
Bale Cube (cu.ft.):	676,666
Passengers:	48
Year Launched:	1930
Year Entered Service:	1949
Year Retired:	1963
Year Dismantled:	1963

INTERESTING FACTS & FIGURES

COMBINATION CARGO-PASSENGER LINERS

- Alternatively, some Dutch immigrants chose or could afford to take a combination cargo-passenger liner (or combi-liner) to Vancouver. The North Pacific Coast Line – a joint cargo / passenger service of the Holland-America

and Royal Mail Lines - had been serving Vancouver since the 1920's. This service completed the roughly 13,300-mile voyage between Rotterdam / Southampton and Vancouver via Cristobal (Panama Canal Zone), Los Angeles, and San Francisco in about six weeks. On occasion, ships called at Bermuda or other West Indies ports, and at times Oakland, Portland, Tacoma, Seattle, or Victoria.¹⁴

- Designed and built for cargo / passenger service, these combi-liners accommodated between 18 and 61 passengers. Unlike what was experienced on the transatlantic immigrant ships, passengers could expect excellent service, fine food and the best facilities possible. There were also opportunities to visit the engine room, bridge and watch the loading and unloading of cargo.

THE SHIP

- The M.S. DALERDYK had been launched as the DAMSTERDYK in 1930 and sailed on the North Pacific Coast service. In 1940 the Nazis requisitioned her for use as a target ship, first by the German Luftwaffe (1942) and then the German Kriegsmarine's submarines (1943); however, it was the Royal Air Force which bombed and burned her out in 1945.
- In 1949, the ship completed a comprehensive refit including more powerful engines, a lowered funnel, changes to her cargo handling equipment, and upgrading of her passenger facilities to a higher and more modern standard. Re-christened DALERDYK, she continued on the North Pacific Coast service until 1963.¹⁵



Alternatively, the 48 passengers aboard a combi-liner such as the DALERDYK - pictured at CPR Pier B on Thursday, April 28, 1949 - could complete the 13,000-mile sea voyage between Rotterdam and Vancouver via the Panama Canal much more comfortably in about 6 weeks (Vancouver Archives, CVA 447-4181, Photographer - Walter E. Frost)

EASTBOUND CARGOES

LUMBER

TECHNICAL DATA

NAME:	M.S. KERTOSONO
Type:	General cargo ship
Standard:	0
Shipyard:	Maschinenfabrik Augsburg-Nürnberg A.G., Augsburg, Germany
Hull Number:	173
Tonnage (GRT):	8,641
Tonnage (NRT):	5,289
Length (m):	151.9
Service Speed (kts):	15.0
Propulsion:	Single screw; 3 diesel electric engines; 6,800 bhp
Owner:	Royal Rotterdam Lloyd
Cargo Handling:	2 masts, 13 derricks (K.M.K.K.F.K.M.K)
Grain Cube (cu.ft.):	584,278
Bale Cube (cu.ft.):	563,333
Passengers:	10
Year Launched:	1936
Year in Service:	1946
Year Retired:	1961
Year Dismantled:	1961

INTERESTING FACTS & FIGURES

LUMBER

- Dimensional lumber produced by sawmills was prepared mostly as planks and boards. Provincial trade expanded fairly steadily to a peak in 1956 with the growth of world

population.

- After the war, lumber exports from B.C. to the Netherlands totaled over 52 trillion board feet in 1947. Ten years later, this volume reduced to just over 4 trillion board feet due to conditions in specific markets and maritime freight rates.
- Rather than be loaded from shore, lumber in Vancouver was typically directly cross-loaded onto freighters from barges, which were towed over from nearby coastal sawmills.

THE SHIP

- Built in Germany in 1936 for HAPAG, the WUPPERTAL was in Java taking on cargo for home when the Nazis invaded the Netherlands during the European blitz of 1940. Dutch forces immediately took over the ship and crew and she has been in Dutch service since.¹⁶
- Re-christened as KERTOSONO by Royal Rotterdam Lloyd, the vessel's cargo reportedly included crude rubber, acid and general freight from the Dutch East Indies, Straights Settlements and Ceylon (today known as Indonesia, Singapore, and Sri Lanka) for Montreal in May 1949. KERTOSONO would then sail from Montreal to the Dutch West Indies with part of her cargo made up of outboard motors, airplane parts, and medical supplies.¹⁷
- KERTOSONO's first Vancouver call was reportedly in November 1952 when she arrived with a load of general cargo from Asia.¹⁸



Lumber typically arrived in Vancouver on barges from local coastal sawmills and would then be cross-loaded as shown onto freighters, such as Royal Rotterdam Lloyd's KERTOSONO which is moored at Ballantyne Pier on Sunday, August 8, 1954
(Vancouver Archives, CVA 447-5433, Photographer - Walter E. Frost)

WHEAT

TECHNICAL DATA

NAME:	S.S. AMSTELLAAN
Type:	General cargo ship
Standard:	Liberty EC2-S-C1
Shipyard:	Southeastern Shipbuilding Corporation Inc., Savannah, GA, U.S.A.
Hull Number:	28
Tonnage (GRT):	7,264
Tonnage (NRT):	4,420
Length (m):	134.6
Service Speed (kts):	11.0
Propulsion:	Single screw; 2 oil-fired boilers; 1 3-cyl., triple expansion steam engine; 2,500 ihp
Owner:	Netherland Steamship Co.
Cargo Handling:	2 masts, 18 derricks (K.M.F.M)
Grain Cube (cu.ft.):	562,608
Bale Cube (cu.ft.):	500,245
Passengers:	0
Year Launched:	1943
Year in Service:	1957
Year Retired:	1961
Year Dismantled:	1966

INTERESTING FACTS & FIGURES

WHEAT

- Vancouver became Canada's premier seaport for shipping Prairie wheat to Europe and Asia because of the Crow Rate and the Panama Canal. Established in 1897, the Crow

Rate set the federal government's statutory rate for the railway movement of grain from country elevator to port. The completion of the Panama Canal in 1914 shortened the sailing distance from Vancouver to European ports by over 8,000 miles. Both were factors in making the Port of Vancouver Canada's largest exporter of grain by the 1950's.

- Over 1.2 trillion bushels of wheat was loaded at Vancouver's grain terminals post-war (1945-1955). Of this, about 44 million bushels were destined for the Netherlands to feed Dutch flour mills, exceeded only by the United Kingdom's portion of over 583 million bushels.

THE SHIP

- Starting life in 1943 as the Liberty ship ROBERT FECHNER, she was built for the U.S. War Shipping Administration in less than two months. Post War, the Netherlands government bought the freighter in 1947, rechristened her VAN DER WAAL and placed her under the management of the Netherlands Steamship Co. (SMN). Three years later SMN purchased her and renamed her ENNGANO in 1950. Seven years later, the freighter was renamed AMSTELLAAN after which she reportedly called at Vancouver numerous times.
- In 1961, she was sold to Pacific Overseas Navigation and rechristened with her fifth and final name: SILVER STATE. After 23 years of service – nearly five times her five-year design life, the Liberty ship was broken up in Taiwan in 1966.



Wheat would be fed into a ship's holds like the Netherlands Steamship Co.'s AMSTELLAAN by the overhead system of conveyer belts and spouts at one of Vancouver's grain terminals such as Lapointe Pier pictured on Wednesday, March 5, 1958
(Vancouver Archives, CVA 447-3116, Photographer - Walter E. Frost)

BREAKBULK

TECHNICAL DATA

NAME:	S.S. AXELDYK
Type:	General cargo ship
Standard:	Victory VC2-S-AP2
Shipyard:	California Shipbuilding Corporation Inc., Los Angeles, CA, U.S.A.
Hull Number:	V-50
Tonnage (GRT):	7,639
Tonnage (NRT):	4,595
Length (m):	138.8
Service Speed (kts):	15.0
Propulsion:	Single screw; 2 General Electric cross-compound steam turbines; 6,000 apk
Owner:	Holland-America Line
Cargo Handling:	3 masts, 18 derricks (M.M.K.F.K.M)
Grain Cube (cu.ft.):	524,000
Bale Cube (cu.ft.):	454,000
Passengers:	0
Year Launched:	1945
Year in Service:	1947
Year Retired:	1963
Year Dismantled:	1970

INTERESTING FACTS & FIGURES

BREAKBULK

- Breakbulk refers to cargo which must be loaded in a ship's cargo hold piece by piece: a time-consuming, back-breaking process. Goods may be packaged in bags, cases,

crates, drums, barrels, or kept together by baling and placed onto pallets.

- Cargo handling is carried out by gangs of local longshoremen using either the ship's own cargo gear or shore cranes. Supported by masts or kingposts, derricks are the ship's cranes. Their lifting capacity can typically vary from 3 tonnes to 50 tonnes or more, operated by the ship's winches. Derricks are necessary when cargo is loaded or discharged into barges and are also used on the ship's quayside, where they can work in conjunction with shore cranes.
- Huge tarps were used to shelter a freighter's open holds during periods of foul weather.

THE SHIP

- In the five years after the Second World War, 16 wartime-built ships were transferred by the U.S. government to the Netherlands government and allocated to HAL as reparations under the Merchant Marine Reconstruction Scheme. These U.S.-built freighters were all given 'DYK' names starting with 'A' by HAL.
- Holland-America Line rechristened the S.S. AXELDYK (former COLBY VICTORY) in San Francisco on Monday, April 7, 1947. She then steamed north on her maiden voyage destined for the Pacific Northwest. Two days later at 11 pm on Wednesday, AXELDYK reportedly berthed at the Port of Tacoma's Kaiser Aluminum smelter to load copper for Holland.¹⁹



On Friday, October 10, 1961, the AXELDYK's cargo gear of masts, kingposts and derricks is pictured as well as the huge tarp sheltering the forward hold from the foul October weather. Note the Ballantyne Pier shore crane visible midship (Vancouver Archives, CVA 447-3051.1, Photographer - Walter E. Frost)

REBUILDING THE FLEET

WAR REPARATIONS AND THE MARSHALL PLAN

EX-GERMAN SHIPS

TECHNICAL DATA

NAME:	<i>S.S. DUIVENDYK</i>
Type:	Combination cargo-passenger liner
Standard:	0
Shipyard:	Deutsche Werft A.G., Hamburg, Germany
Hull Number:	125
Tonnage (GRT):	8,269
Tonnage (NRT):	5,018
Length (m):	152.3
Service Speed (kts):	14.0
Propulsion:	Single screw; 4 Zoelly steam turbines; 6,200 apk
Owner:	Holland-America Line
Cargo Handling:	2 masts, 18 derricks (K.K.M.K.F.K.M)
Grain Cube (cu.ft.):	490,000
Bale Cube (cu.ft.):	446,000
Year Launched:	1930
Year in Service:	1946
Year Retired:	1959
Year Dismantled:	1960

INTERESTING FACTS & FIGURES

EX-GERMAN CARGO SHIPS

- When the Second World War began in September 1939, a number of German-flagged ships such as the VANCOUVER sought refuge in neutral Dutch ports, i.e. Willemstad, Curacao.
- The Dutch interned the German ships with the intent of holding them until the end of the war. After the

Netherlands was invaded in May 1940, the German ships were seized and the Netherlands government put them to work.

- After the war, the Netherlands government turned her over to the Holland-America Line as compensation for Dutch-flagged ships lost in the war. Rechristened DUIVENDYK, she sailed for the North Pacific Coast Line until 1959.²⁰

THE SHIP

- Built in 1930, the Hamburg-Amerikanische Packetfahrt A.G. (HAPAG) combi-liner was originally christened VANCOUVER. Walter Frost photographed her several times when VANCOUVER called in Vancouver before the Second World War (see inset).
- On January 16, 1954, the DUIVENDYK (master - Capt. J.P. Dekker) lost her propeller about 600 miles west of the Azores. After two days rolling in calm seas, the Dutch tug ZWARTE ZEE stationed in the Azores, reached the ship, and proceeded to tow the combi-liner 2,100 miles west across the Atlantic to Newport News, Virginia. Here, the spare propeller and shaft that the DUIVENDYK had onboard were installed in drydock; the shaft being extracted from her hold through a large hole cut in her hull with acetylene torches, subsequently welded closed. This 'surgical' procedure avoided the long and costly procedure of removing the tons of cargo from the holds above where the shaft was stored.



When the Second World War began, a number of German-flagged ships, such as the VANCOUVER (inset), sought refuge in neutral Dutch ports. Post war, the Netherlands government turned them over to Dutch shipping lines as war reparations. Rechristened DUIVENDYK in 1946, the Holland-America Line combi-liner then sailed for the North Pacific Coast Line
(Vancouver Archives, CVA 447-4327.2, Photographer - Walter E. Frost)
(Vancouver Archives, CVA 447-2807, Photographer - Walter E. Frost)

OCEAN SHIPS

TECHNICAL DATA

NAME:	S.S. AMSTELSTAD
Type:	General cargo ship
Standard:	Ocean
Shipyard:	Todd-Bath Iron Shipbuilding Corporation Inc., Portland, ME, U.S.A.
Hull Number:	16
Tonnage (GRT):	7,124
Tonnage (NRT):	4,280
Length (m):	135.9
Service Speed (kts):	11.0
Propulsion:	Single screw; 2 coal-fired boilers; 1 3-cyl. triple expansion steam engine; 2,500 ihp
Owner:	Amsterdam Steamship Co.
Cargo Handling:	2 masts (K.M.K.F.K)
Grain Cube (cu.ft.):	534,448
Bale Cube (cu.ft.):	481,594
Passengers:	0
Year Launched:	1942
Year in Service:	1946
Year Retired:	1959
Year Dismantled:	1984

INTERESTING FACTS & FIGURES

OCEAN-CLASS CARGO SHIPS

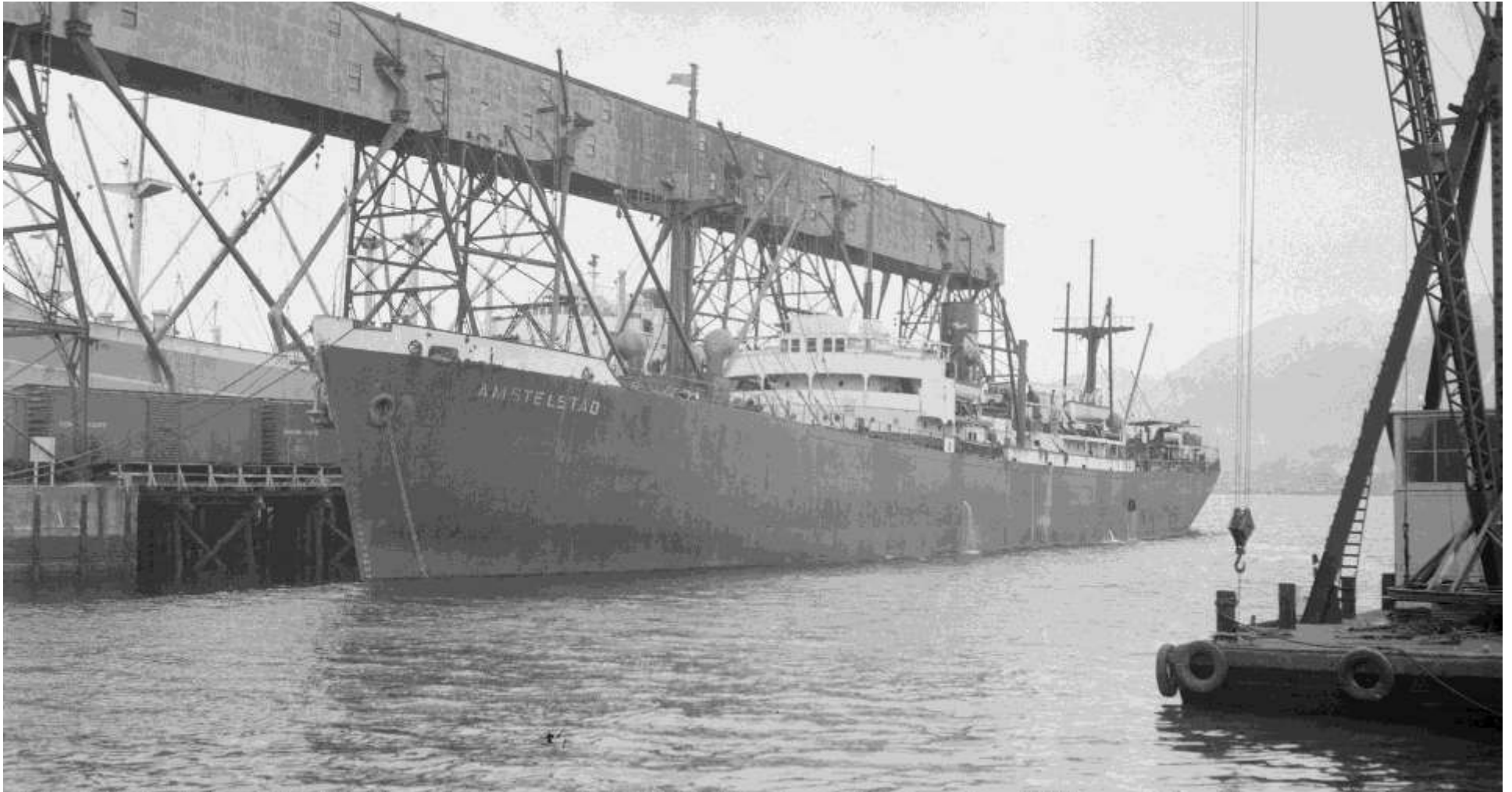
- The Ocean ships were a class of sixty 7,100-ton general cargo ships built in the United States by Todd Shipyards Corporation during the Second World War for the British Ministry of War Transport under contracts let by

the British Purchasing Commission. All the ships had "OCEAN" names, but at the time of construction were sometimes referred to as British Victory ships. Eighteen were lost to enemy action and eight to accidents; four survived as Dutch-flagged ships. The remaining survivors were sold postwar into merchant service.

- To expedite production, the design was based on the British "Sunderland Tramp", which originated in 1879 and was last built in 1939 by British shipyards, later adapted to become the Liberty ship.
- The Oceans served until the mid-1980s, with OCEAN MERCHANT (AMSTELSTAD) listed on Chinese shipping registers as ZHAN DOU 26 until 1984.²¹

THE SHIP

- Both U.S. and Australian newspapers reported on the master (Capt. R.H. Repko) of the S.S. AMSTELSTAD (former OCEAN MERCHANT) predilection to explore the foreign waterways in his self-built 12-ft. sailboat EVA named after his daughter.^{22, 23}
- In March 1954, AMSTELSTAD called at Vancouver to load a full grain cargo for Japan. However, the original 20-man crew had walked off ship at Otaru, Japan protesting conditions aboard, e.g. unpalatable food, rusty water, and bad bedding. The 19-day trip across the Pacific was reportedly a rough one for her master (Capt. A. van Knapen) and the 17 officers and stewards who stayed to man the vessel. A new crew had to be flown in to Vancouver from the Netherlands to bring her back to her full complement of 38 officers and men.²⁴



The AMSTELSTAD (former OCEAN MERCHANT) pictured at Grain Terminal No. 1 on Saturday, March 27, 1954.
Note the large ventilator cowls adjacent to her foremost kingpost
(Vancouver Archives, CVA 447-3123, Photographer - Walter E. Frost)

LIBERTY SHIPS

TECHNICAL DATA

NAME:	S.S. AMSTELDIEP
Type:	General cargo ship
Standard:	Liberty EC2-S-C1
Shipyard:	Oregon Shipbuilding Corporation Inc., Portland, OR, U.S.A
Hull Number:	689
Tonnage (GRT):	1,943
Tonnage (NRT):	4,430
Length (m):	134.6
Service Speed (kts):	11.0
Propulsion:	Single screw; 2 oil-fired boilers; 1 3-cyl., triple expansion steam engine; 2,500 ihp
Owner:	Amsterdam Steamship Co.
Cargo Handling:	2 masts, 12 derricks (K.M.F.M.)
Grain Cube (cu.ft.):	562,608
Bale Cube (cu.ft.):	499,573
Passengers:	0
Year Launched:	1943
Year in Service:	1947
Year Retired:	1961
Year Dismantled:	1968

INTERESTING FACTS & FIGURES

LIBERTY-CLASS CARGO SHIPS

- In 1939, the Kriegsmarine (German Navy) initiated submarine warfare in the North Atlantic Ocean to enforce a naval blockade against Great Britain. Their Unterseebooten (or U-Boats) sank great numbers of

merchant ships approaching the British Isles. Cargo ships were needed to ferry supplies to the Allies; consequently, the United States decided to modify the old, but reliable British design and these new emergency cargo ships came to be known as Liberty ships.

- Eighteen U.S. shipyards built 2,710 Liberty ships between 1941 and 1945, easily the largest number of ships ever produced to a single design. Unfortunately, the Liberty ships proved to be too small to carry the tons of supplies the U.S. and her Allies would need to win the war. Furthermore, they were too slow. The Kriegsmarine U-Boats sank them almost as fast as they were being built.
- After the war, the U.S. government transferred Liberty ships such as the AMSTELDIEP to the Netherlands government, which in turn allocated them to Dutch shipping lines as compensation under the Merchant Marine Reconstruction Scheme.
- Many Liberty ships would provide over 20 years of service – nearly four times their five-year design life.

THE SHIP

- Ten years after the war, Liberty ships which had brought building materials to Europe were bringing manufactured goods back to Vancouver as Dutch-flagged cargo ships.
- In February 1957, the S.S. AMSTELDIEP (the former THOMAS A. HENDRICKS) delivered 816 British-built motor cars (= 569 were crated without wheels + 257 uncrated). In addition to full holds, the Liberty ship carried 129 crated cars on her foredeck and an additional 90 on her afterdeck.²⁵



Ten years after the war, Liberty ships like the AMSTELDIEP (former THOMAS A. HENDRICKS) which had brought building materials to Europe were bringing manufactured goods such as British-built motor cars to Vancouver as Dutch-flagged cargo ships. Note the crated cars on her foredeck and afterdeck at CPR Pier B on Friday, February 1, 1957 (Vancouver Archives, CVA 447-3310, Photographer - Walter E. Frost)

VICTORY SHIPS

TECHNICAL DATA

NAME:	S.S. ARKELDYK
Type:	General cargo ship
Standard:	Victory VC2-S-AP3
Shipyard:	Oregon Shipbuilding Corporation Inc., Portland, OR, U.S.A.
Hull Number:	1,241
Tonnage (GRT):	7,664
Tonnage (NRT):	4,652
Length (m):	138.8
Service Speed (kts):	17.0
Propulsion:	Single screw; 2 General Electric cross- compound steam turbines; 8,500 apk
Owner:	Holland-America Line
Cargo Handling:	3 masts, 18 derricks (M.M.K.F.K.M)
Grain Cube (cu.ft.):	569,000
Bale Cube (cu.ft.):	493,000
Passengers:	0
Year Launched:	1945
Year in Service:	1946
Year Retired:	1966
Year Dismantled:	1969

INTERESTING FACTS & FIGURES

VICTORY-CLASS CARGO SHIPS

- Victory-class cargo ship were also produced in large numbers by U.S. shipyards during the Second World War. A total of 531 Victory ships were built between 1944 and

1946. When compared to the earlier Liberty ship, their more modern design of a slightly larger size and more powerful steam turbine engines ensured that Victory ships could travel in in high-speed convoys, making them more difficult targets for German U-Boats.

- Like Liberty ships, the U.S. Government transferred Victory ships such as the ARKELDYK (the former WHITMAN VICTORY) to the Netherlands Government after the war, which in turn allocated them to Dutch shipping lines as reparations for ships lost in the war.

THE SHIP

- The S.S. ARKELDYK carried all manner of cargo. Seventeen years after the Second World War, she brought Heineken beer, tulip bulbs and Gouda cheese from Europe. Less typical cargo included twin (his and her) Rolls-Royce Silver Cloud automobiles (England-San Francisco)²⁶ and the trawler 'GERONIMO' (Los Angeles-Vancouver) which had the (unsuccessful) goal of capturing a baby orca whale for the Marineland oceanarium in California.
- On her return trip to Europe through the Panama Canal, the ARKELDYK's five holds were filled with B.C. lumber, Prairie wheat, Fraser Valley eggs, Okanagan apples, and canned wild Pacific salmon.



The more modern design of Victory ships like the ARKELDYK (the former WHITMAN VICTORY) with its slightly larger size and more powerful steam turbine engines ensured that they could travel in in high-speed convoys, making them more difficult targets for German submarines. On her foredeck is the GERONIMO, a wooden trawler brought up from Los Angeles at Ballantyne Pier on Tuesday, July 31, 1962 (Vancouver Archives, CVA 447-3308, Photographer - Walter E. Frost)

C3 SHIPS

TECHNICAL DATA

<i>NAME:</i>	<i>S.S. LIMBURG</i>
Type:	General cargo ship
Standard:	C3-S-A5
Shipyard:	Sun Shipbuilding & Dry Dock Company Inc., Chester, PA, U.S.A.
Hull Number:	551
Tonnage (GRT):	8,374
Tonnage (NRT):	4,780
Length (m):	150.1
Service Speed (kts):	16.5
Propulsion:	Single screw; 2 General Electric cross- compound steam turbines; 8,500 apk
Owner:	Royal Rotterdam Lloyd
Cargo Handling:	2 masts, 20 derricks (K.K.M.K.F.K.M.K)
Grain Cube (cu.ft.):	773,000
Bale Cube (cu.ft.):	661,000
Passengers:	12
Year Launched:	1945
Year in Service:	1946
Year Retired:	1970
Year Dismantled:	1971

INTERESTING FACTS & FIGURES

TYPE C3-CLASS SHIPS

- The C series of ships differed from the Liberty and

Victory ships in that they were designed prior to the U.S. entrance in the Second World War after the December 7, 1941 attack on Pearl Harbor and were meant to be commercially viable ships that would modernize the U.S. Merchant Marine and reduce U.S. reliance on foreign shipping.

- Type C3-class ships were the third type of cargo ship designed by the U.S. Maritime Commission in the late 1930s. The design was a general-purpose ship that could be modified for specific uses. The C3 was larger and faster than her C1 and C2 contemporaries, measuring 150 m from stem to stern (vs. 140 m for the C2) and designed to make 16.5 kts (vs. 15.5 kts for the C2). Like the C2, she had five cargo holds. A total of 238 C3 ships were built between 1940 and 1947.

THE SHIP

- On her maiden voyage, the LIMBURG called in Vancouver on Wednesday, April 17, 1946, to take on cargo of herring, flour, and B.C. liquor destined for the port of Batavia in the Dutch East Indies (now Jakarta, Indonesia).²⁷
- Combining the practicality of cargo and passenger carrying, the LIMBURG's accommodation for 12 passengers reportedly included a lounge and bar in oak, glass, leather and chrome; library; spacious cabins with individual baths; wide promenade decks; and a ship-wide dining salon.²⁸



Royal Rotterdam Lloyd's C3 cargo ship LIMBURG moored along Ballantyne Pier on Friday, July 2, 1948 after arriving with a general cargo from India, to where she will return with an assorted consignment of general cargo²⁹ (Vancouver Archives, CVA 447-5710, Photographer - Walter E. Frost)

CONVERTED AIRCRAFT CARRIERS

TECHNICAL DATA

NAME:	S.S. ALBLASSERDYK
Type:	General cargo ship
Standard:	C3-S-A1 (Bogue-class)
Shipyard:	Seattle-Tacoma Shipbuilding Corporation Inc., Tacoma, WA, USA
Hull Number:	32
Tonnage (GRT):	8,292
Tonnage (NRT):	4,914
Length (m):	150.0
Service Speed (kts):	16.5
Propulsion:	Single screw; 2 Allis-Chalmers steam turbines; 8,500 shp
Owner:	Holland-America Line
Cargo Handling:	2 masts, 22 derricks (K.K.M.K.F.K.M.K)
Grain Cube (cu.ft.):	783,000
Bale Cube (cu.ft.):	711,000
Passengers:	12
Year Launched:	1942
Year in Service:	1948
Year Retired:	1966
Year Dismantled:	1971

INTERESTING FACTS & FIGURES

AIRCRAFT CARRIERS, ESCORT (CVE)

- A total of 75 ships were built with C3 hulls and engines but not as cargo ships. Also nicknamed "jeep carriers" or "baby flattops", 45 of these hulls were converted for naval use as Bogue-class escort carriers, which provided a small

and slower type of aircraft carrier. Typically half the length and a third of the displacement of larger fleet carriers such as the 19,800-ton U.S.S. Yorkton, CVE's were more lightly armed and armored and carried fewer planes. Built upon a commercial C3 ship hull, they were cheaper and could be built quicker.

THE SHIP

- The 8,300-ton ALBLASSERDYK was one of two U.S.-built escort carriers converted to freighters post war that were allocated to the Holland-America Line.
- Built in 1943 as the U.S.S. BASTIAN (CVE-37) in Tacoma, Washington, she was transferred to the Royal Navy (RN) under the provisions of the Lend-Lease program where she entered service as the H.M.S. TRUMPETER (D09). As delivered the escort carriers required modifications to conform to RN standards. Because UK ports were overwhelmed, TRUMPETER was one of 19 ships which underwent conversions at Burrard Dry Dock on Burrard Inlet's North Shore across from Vancouver, B.C.
- TRUMPETER escorted convoys and conducted anti-shipping operations in the North Atlantic and Indian Oceans with a complement of 890 officers and men and 28 aircraft. For her actions, she was awarded the Battle Honours: ATLANTIC 1944, ARCTIC 1944, and NORWAY 1945.
- In 1948, ALBLASSERDYK was allocated to the Holland-America Line by the Netherlands government and would primarily call at ports on the U.S. East Coast. On occasion, she would steam up the North Pacific Coast.



Also nicknamed "jeep carriers" or "baby flattops", forty-five C3 hulls and engines were converted for naval use as Bogue-class escort carriers. After the war, a number were converted to freighters - including the ALBLASSERDYK assisted by two tugs pictured departing Vancouver on Wednesday, July 31, 1963 - and once again allocated to Dutch shipping lines as war reparations (Vancouver Archives, CVA 447-3051.1, Photographer - Walter E. Frost)

GLOSSARY

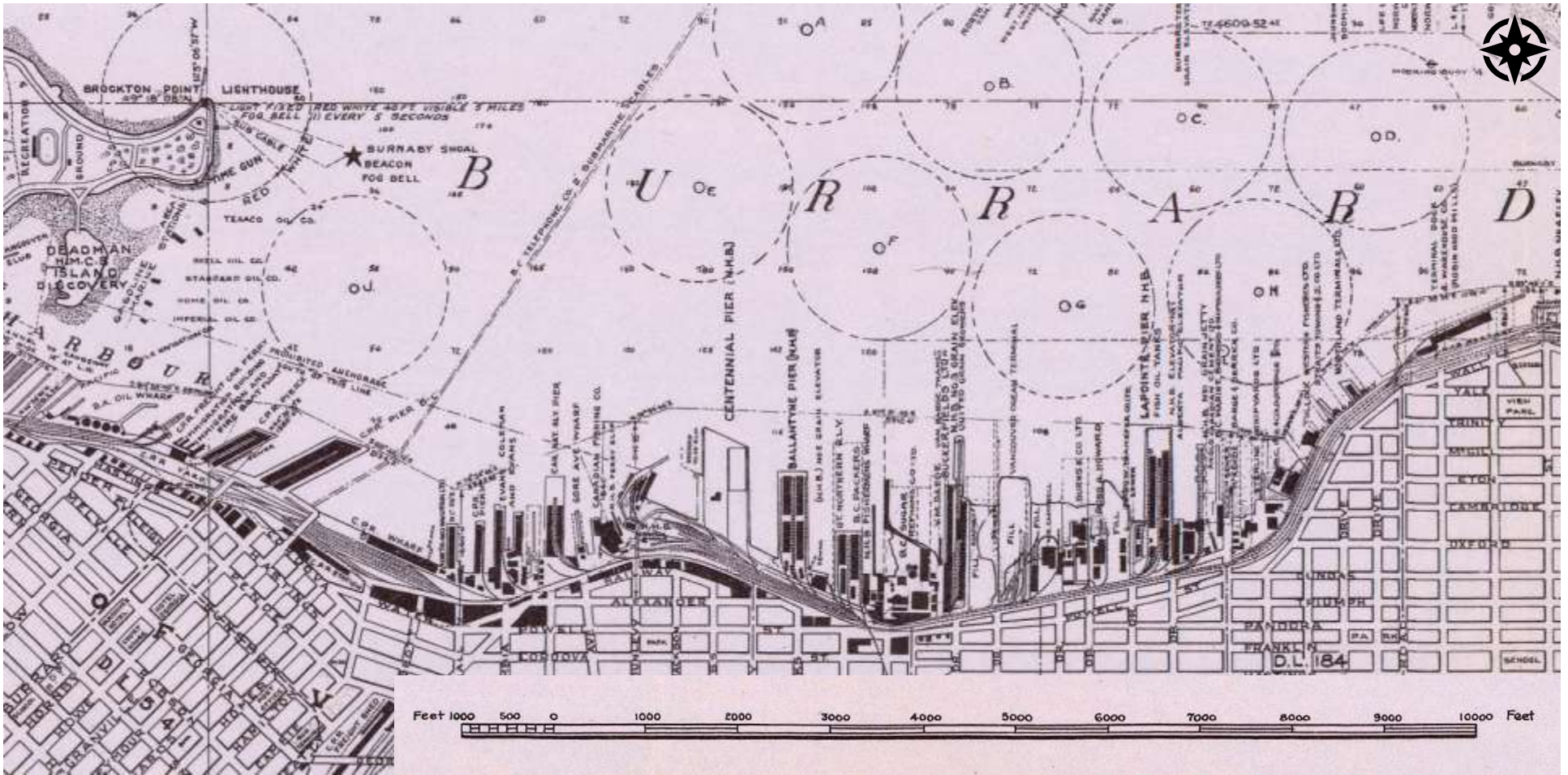
- Bale cube - The space available for cargo in bales or on pallets, etc., where the cargo does not conform to the shape of the ship. Measured in cubic feet or meters.
- Ballast - Weight (e.g. sand, gravel, or water) added to the ship's bottom to provide stability and trim, especially when she is without cargo. Most vessels are fitted with water tanks and pumps specially designed for this purpose.
- Boom - a heavy spar for handling cargo; usually attached to the base of a mast or kingpost.
- Boot-topping – the colour of the hull along the waterline.
- Bow - the front portion of the vessel.
- Breakbulk - Breakbulk cargo is a commodity that must be loaded individually in a ship's cargo hold. Goods may be packaged in bags, cases, crates, drums, barrels, or kept together by baling and placed onto pallets. Typical breakbulk cargo include paper, lumber, steel, and machinery.
- Bulk - Bulk cargo is a commodity that is transported in large quantities and unpackaged. Typical bulk cargo include coal, chemicals (potash, sulphur), and grain.
- Bunker - a space in which fuel is stowed. The actual fuel itself is usually referred to as bunker fuel.
- Bunkering - the action of taking fuel on board.
- Bushel - a measure of volume equal to 8 gal (36.4 L), used for dry goods, e.g. wheat.

- Cargo Handling – the sequence of cargo handling equipment from bow to stern, e.g. K.M.F.M = kingpost, mast, funnel, mast also used to identify a ship from afar.
- Combination passenger-cargo ship - A “combi-liner” operates a regular scheduled service on a fixed route between designated ports and carries many consignments of different commodities.
- Complement - the full number of people required to operate a ship. Includes officers and crewmembers; does not include passengers.
- Courtesy flag - national flag of the country which a ship is visiting, flown at the foremast head or on the yard arm as a mark of respect.
- Cowl - a ventilator covering designed to improve the air flow in a ship.
- Crow's-nest - a structure in the upper part of the main mast of a ship or a structure that is used as a lookout point.
- Crow Rate (or Crowsnest Freight Rate) - a rail transportation subsidy in Canada which was established in 1897 to provide reduced freight rates for grain, grain products and farm machinery.

- Davits - small cranes or apparatus for lifting, swinging out and lowering of ship's lifeboats.
- Derrick - a boom with tackle for handling cargo.
- Dressing overall - a sign of celebration, done for special occasions, anniversaries, and events. Consists of stringing signal flags and pennants on a ship from bow to stern.
- Ensign – national flag of the port where the ship is registered; it is flown at the stern of a ship.
- Foremast - the mast closest to the bow of a ship.
- Grain cube - the maximum space available for cargoes such as grain, where the cargo flows to conform to the shape of the ship. Measured in cubic metres or feet.
- HAL - Holland-America Line.
- HAPAG - Hamburg-Amerikanische Packetfahrt A.G. (Hamburg-America Line).
- Hold - the space below deck where the cargo is stored.
- Hull - the body of a vessel from the keel to the deck line.
- Kingpost - a short vertical post used to support a derrick boom, typically positioned near hatchways. May also be referred to as short masts. Kingposts might be single, on the centre line of the vessel, kingposts are more commonly in pairs, abreast.
- Knot (kt) - a measurement of speed, one nautical mile per hour.
- KNSM - Koninklijke Nederlandse Stoomboot-Maatschappij (Royal Netherlands Steamship Company)
- KPM - Koninklijke Paketvaart-Maatschappij (Royal Packet Navigation Company)
- KRL - Koninklijke Rotterdamse Lloyd (Royal Rotterdam Lloyd).
- Nautical mile (nm) - measure of length equal to 1,852 m (6,076.6 ft.) or the length of arc of one minute of latitude at the equator.
- Mast - a vertical or raked structure used to support cargo derricks, radio antennas, and to a lesser degree for signaling (see courtesy flag), observation (see crow's-nest) or for carrying lights.
- Port - the left-hand side of a ship looking towards the bows, shows a red light.

- Speed - service speed (see knot).
- Starboard - the right-hand side of a ship looking towards the bows, shows a green light.
- Stern - the rear portion of a vessel.
- Superstructure - a structure or structures built above a vessel's hull. Includes pilothouse, bridge, galley house, deckhouses, etc.
- Tonnage - three tonnage figures are commonly used for merchant ships:
 - Deadweight (DWT) - this is the weight in tons of the cargo, stores, fuel, etc. carried by a ship when down to her loading marks. It indicates a ship's cargo-carrying and earning capacity.
 - Gross Register (GRT) - the total cubic capacity of all enclosed spaces at 100 cu. ft. to the ton. It is used for general purposes and in national maritime registers.
 - Net register (NRT) - measured in the same way as gross tonnage, the net register is the capacity of enclosed space less that of the engine and boiler rooms, crew accommodation, stores, and all spaces necessary for the working of the ship. It is the cubic capacity of all earning space and the tonnage figure most used to calculate harbour dues and other charges.
- VAS - radio callsign of the former Vancouver Harbour Marine Communications and Traffic Services (MCTS) Centre.
- Ventilator - a device for introducing fresh air or expelling foul or stagnant air below deck.
- Watch - a portion of time assigned for continuous duty. Usually 4 hours on then 8 hours off. Watches on ships with reduced manning can be 6 hours on, 6 hours off.

VANCOUVER'S WHARVES & PIERS



Vancouver's wharves & piers in 1960

PHOTO CREDITS

- P 39 – Detail from Vancouver Harbour (Ottawa: National Harbours Board, 1960) (Source: Vancouver Archives, AMI594-: MAP 436)
- P 41 – Floris van Weelderen (Source: Bunt & Associates Engineering Ltd., 2018)

ABOUT THE CURATOR

FLORIS VAN WEELDEREN



Floris van Weelderen, P.Eng. (Non-Practicing), CD is a Dutch-Canadian soldier, engineer, husband, father, and published author.

After emigrating to Canada from the Netherlands at age seven, Floris went on to graduate from Magee Secondary School (class of 1985). From there, he obtained a Bachelor of Science from the University of Calgary in 1990 and returned to Vancouver with his wife in 1999.

For over 30 years, Floris practiced traffic engineering and transportation planning which culminated in his role of Senior Transportation Engineer and member of the Senior Leadership Team at Bunt & Associates Engineering Ltd.'s Vancouver office.

Floris published his first book “Citadels of the West: Military architecture in British Columbia” in 2005 which was inspired by 24 years of military service with Vancouver’s storied British Columbia Regiment (Duke of Connaught’s Own). He is a member of the Vancouver Historical Society and recently penned an article entitled “SIXTH REGIMENT WILL INVADE UNITED STATES” which details the travels of the 6th Regiment, Duke of Connaught’s Own Rifles to Seattle’s 1909 Alaska-Yukon-Pacific Exposition.

Also a member of the Steamship Historical Society of America, Floris stumbled across Walter Frost’s extensive body of photographs while chronicling his father’s 1960s adventures as a 3e Stuurman (3rd Mate) aboard Holland-America Line freighters and ocean liners. This led to Floris curating a micro-exhibition at the Vancouver Maritime Museum entitled “A LENS ON VANCOUVER’S PAST: Walter Frost’s Holland-America Line (1920-1975)”. Another book in this series is “GATEWAY TO THE PACIFIC: Prominent Piers & Wharves in Vancouver” which documents the evolution of Vancouver’s waterfront from forested shoreline to bustling seaport. Further research led Floris to develop “A LENS ON VANCOUVER’S PAST: Walter Frost’s Arctic Explorers (1920-1977)”, exhibited at the Vancouver City Archives in 2024.

In early 2025, Floris organized his latest photo exhibition entitled "A LENS ON VANCOUVER'S PAST: Walter Frost & Bevrijdingsdag (1945-1955)" as part of the 80th anniversary of the liberation of the Netherlands. Today, he continues to explore and write about other aspects of Vancouver's maritime history.

BIBLIOGRAPHY

City of Vancouver Archives - <https://searcharchives.vancouver.ca>

Crew Size and Maritime Safety (Washington, D.C.: National Academy Press, 1990)

Guns, Nico Holland America Line (Zutphen: Walberg Pers, 2004)

Le Fleming, H.M. *Ships of the Holland-America Line* (London: John Marshbank Ltd., 1965)

Luxton, Donald *Ballantyne Pier Statement Of Significance / Heritage Impact Assessment* (Vancouver: Donald Luxton & Associates Inc., September 2016)

Miller, William H. *First Class Cargo: A history of combination cargo-passenger ships* (Stroud: The History Press, 2016)

Miller, William H. *Handling Cargo: Freighters of the 1950 and '60's* (Stroud: The History Press, 2018)

Miller, William H. *Holland America Liners 1950-2015* (Stroud: Amberley Publishing, 2016)

Seabrook, William C. *IN THE WAR AT SEA: A Record of Rotterdam's Largest Merchant Fleet and Its Gallant Crews from 1940 to 1945* (The Hague: Mouton & Co, 1950)

Stichting Maritiem-Historische Databank - <https://www.marhisdata.nl>

Talbot-Booth, Lieut-Comdr. E.C. *WHAT SHIP IS THAT?* (New York: Didier Publishing Company, 1944)

Talbot-Booth, Lieut-Comdr. E.C. *Merchant Ships 1963* (Liverpool and London: The Journal of Commerce and Shipping Telegraph Ltd, 1963)

Tilton, Capt. Terry HEINEKEN, HEMLOCK & HULA HOOPS: Holland America Combination Ships – Pacific Coast PowerShips Number 311 (Warwick, RI: Steamship Historical Society of America, 2019)

ENDNOTES

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- ¹ The Vancouver Sun (Vancouver, B.C.: August 4, 2018) p H3
- ² <https://www.warmuseum.ca/liberation/> Retrieved April 12, 2025
- ³ <https://www.veterans.gc.ca/en/remembrance/classroom/fact-sheets/netherlands> Retrieved April 12, 2025
- ⁴ <https://www.warmuseum.ca/liberation/#peace> Retrieved April 12, 2025
- ⁵ <https://geheugen.delpher.nl/en/geheugen/pages/collectie/Atlantic+World/Een+land+in+beweging+1945+-+1955/Oorlog+en+Marshallhulp> Retrieved March 15, 2025
- ⁶ Citizenship and Immigration Canada, Statistics Division, *Table 2 - Origin and Destination 1946-1961*
- ⁷ <https://geheugen.delpher.nl/en/geheugen/pages/collectie/Atlantic+World/Een+land+in+beweging+1945+-+1955/Oorlog+en+Marshallhulp> Retrieved March 15, 2025
- ⁸ Le Fleming, H.M. *Ships of the Holland-America Line* (London: John Marshbank Ltd., 1965) p 48
- ⁹ <https://www.benjidog.co.uk/allen/Royal%20Packet%20Line.php> Retrieved April 9, 2025
- ¹⁰ de Waardt, A. *Victory en C3'ers voor Oud-Werktuigkundigen van de voormalige Koninklijke Rotterdamsche Lloyd* (Rotterdam, NL: February 12, 2021) p 1
- ¹¹ Saint John Times Globe (Saint John, New Brunswick, March 28, 1947) p 16
- ¹² <https://www.flickr.com/photos/hilton-t/15273344120> Retrieved April 5, 2025
- ¹³ Hanna, J. Colonist Cars Helped Build the West *Momentum Magazine, Fall 2008* (Calgary, AB; Canadian Pacific Railway, 2008)
- ¹⁴ 1967 Holland-America Line Passage Fares (Rotterdam: Holland-America Line, July 1, 1966) p 33
- ¹⁵ The Vancouver Sun (Vancouver, B.C.: January 27, 1949) p 13
- ¹⁶ The Gazette (Montreal, Quebec: April 21, 1949) p 13
- ¹⁷ The Montreal Star (Montreal, Quebec: May 3, 1949) p 21
- ¹⁸ The Vancouver Sun (Vancouver, BC: November 7, 1952) p 22
- ¹⁹ The News Tribune (Tacoma, Washinton: April 11, 1947) p 20
- ²⁰ Daily Press (Newport News, Virginia: February 2, 1954) p 3
- ²¹ <https://www.marhisdata.nl/schip&id=3139> Retrieved April 19, 2025
- ²² The Galveston Daily News (Galveston, TX: December 4, 1949) p 6
- ²³ Brisbane Telegraph (Brisbane, Queensland: July 2, 1953) p 12
- ²⁴ The Province (Vancouver, B.C.: March 24, 1954) p 3
- ²⁵ The Province (Vancouver, B.C.: February 2, 1957) p 7
- ²⁶ The San Francisco Examiner (San Francisco, CA: July 27, 1962) p 19
- ²⁷ The Province (Vancouver, B.C.: April 17, 1946) p 5
- ²⁸ The Province (Vancouver, B.C.: April 17, 1946) p 5
- ²⁹ The Vancouver Sun (Vancouver, B.C.: July 3, 1948) p 10

