

**PURCHASE ORDER
MODIFICATION**

FORM PA-POMD-1 (3322160)

**NEWPORT NEWS SHIPBUILDING AND DRY DOCK COMPANY
NEWPORT NEWS, VIRGINIA**

O.B.R.P. ☐ YES ☐ NO

VENDOR ORDER NO.

MODIFICATION NO. **3**
TO PURCHASE ORDER NUMBER

...H-573-635A-10.....

IMPORTANT -

See Note Below

DATE OF ISSUE (BY PA)

January 27, 1964

INSPECTION BY

Owners

INSPECTION AT

Destination

TO: **Worthington Corporation
Harrison, New Jersey**

87639

PLEASE MODIFY THIS PURCHASE ORDER AS SPECIFIED HEREIN. ALL TERMS AND CONDITIONS OF THE ORIGINAL PURCHASE ORDER AND APPENDICES ATTACHED THERETO REMAIN IN EFFECT UNLESS SPECIFICALLY ALTERED BY A MODIFICATION.

ACKNOWLEDGE RECEIPT OF THIS MODIFICATION IMMEDIATELY, ADVISING ITS EFFECT ON PRICE AND DELIVERY.

**L. B. PETERSON, MANAGER OF PURCHASES (OR)
W. K. WILLS, PURCHASING AGENT**

ITEM	QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
1		PUMPS: RECIPROCATING, STEAM - GROUP X635-3 - For Humble Oil and Refining Co. Tankers Change the "Title" to read as shown above. On Sheet 1, at top of Quantity Column, add <u>2 Ships</u>. Increase the quantity from 1 to <u>2</u>. This modification exercises the option in the basic purchase order concerning purchase for a second vessel. Add shipment for second shipset of material July 20, 1964.		

ARB
1/20
WJH-dm
FBB*

SHEET NO. 1 OF 1 SHEETS
MODIFICATION

*This Number MUST Appear On All
Correspondence, Invoices, Packages
And Shipping Papers.*

MODIFICATION NO. **3**
TO PURCHASE ORDER NUMBER
H-573-635A-10

EXX-MOR-002519

**PURCHASE ORDER
MODIFICATION**

FORM PA-POMD-1 (3322160)

**NEWPORT NEWS SHIPBUILDING AND DRY DOCK COMPANY
NEWPORT NEWS, VIRGINIA**

O.B.R.P. ☐ YES ☐ NO

VENDOR ORDER NO. **X**

MODIFICATION NO. **2**
TO PURCHASE ORDER NUMBER

H-573-635A-10

IMPORTANT - *See Note Below*

DATE OF ISSUE (BY PA)

December 27, 1963

INSPECTION BY

Owners

INSPECTION AT

Destination

87639

TO: **Worthington Corporation
Harrison, New Jersey**

PLEASE MODIFY THIS PURCHASE ORDER AS SPECIFIED HEREIN. ALL TERMS AND CONDITIONS OF THE ORIGINAL PURCHASE ORDER AND APPENDICES ATTACHED THERETO REMAIN IN EFFECT UNLESS SPECIFICALLY ALTERED BY A MODIFICATION.

ACKNOWLEDGE RECEIPT OF THIS MODIFICATION IMMEDIATELY, ADVISING ITS EFFECT ON PRICE AND DELIVERY.

**L. B. PETERSON, MANAGER OF PURCHASES (OR)
W. K. WILLS, PURCHASING AGENT**

ITEM	QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
3		PUMPS: RECIPROCATING, STEAM - Cancel Note: Instruction books for this order will be incorporated in those provided for our P.O. H-573-635A-8. P.A.: This serves as a reply to vendor's letter dated 10 December 1963.		

ARB
12/19
WJH-dm
FBB*

SHEET NO. 1 OF 1 SHEETS
MODIFICATION

*This Number MUST Appear On All
Correspondence, Invoices, Packages
And Shipping Papers.*

MODIFICATION NO. **2**
TO PURCHASE ORDER NUMBER
H-573-635A-10

EXX-MOR-002520

NEWPORT NEWS SHIPBUILDING AND DRY DOCK COMPANY
NEWPORT NEWS, VIRGINIA

FORM PA-POMD-1 (3322160)

O.B.R.P. ☐ YES ☐ NO
VENDOR ORDER NO.

No
MODIFICATION NO. 1
TO PURCHASE ORDER NUMBER

H-573-635A-10

IMPORTANT - See Note Below

DATE OF ISSUE (BY PA)

October 9, 1963

INSPECTION BY

Owners

INSPECTION AT

Destination

to: Worthington Corporation
Harrison, New Jersey

PLEASE MODIFY THIS PURCHASE ORDER AS SPECIFIED HEREIN. ALL TERMS AND CONDITIONS OF THE ORIGINAL PURCHASE ORDER AND APPENDICES ATTACHED THERETO REMAIN IN EFFECT UNLESS SPECIFICALLY ALTERED BY A MODIFICATION.

ACKNOWLEDGE RECEIPT OF THIS MODIFICATION IMMEDIATELY, ADVISING ITS EFFECT ON PRICE AND DELIVERY.

L. B. PETERSON, MANAGER OF PURCHASES (OR)
W. K. WILLS, PURCHASING AGENT

[illegible]

SHEET NO. 1 OF 1 SHEETS
MODIFICATION

***This Number MUST Appear On All
Correspondence, Invoices, Packages
And Shipping Papers.***

MODIFICATION NO. 1
TO PURCHASE ORDER NUMBER H-573-635A-10

EXX-MOR-002521

**PURCHASE ORDER
DISTRIBUTION COPY**
FORM PA-POD-1 (3322100)

NEWPORT NEWS SHIPBUILDING AND DRY DOCK COMPANY
LEAD YARD ORDER NO.

C.N.P. ☐ YES ☐ NO
VENDOR ORDER NO.

VENDOR

Worthington Corporation
Harrison, New Jersey

N.N. VENDOR NO.

87639

YD. REQ. NO.

PURCHASE ORDER NUMBER

H-573-635A-10

IMPORTANT-

See Note Below

DATE OF ISSUE (BY PA)

August 13, 1963

INSPECTION BY

Owners

INSPECTION AT

Destination

APPLICABLE
APPENDIX

A- See below

BUYER	PLACEMENT	COMMODITY	AMOUNT	DATE SHIPMENT WANTED	DATE SHIPMENT PROMISED	
				March 20, 1964		
F.O.B.			TERMS	CHARGE NO.	STOP NO.	
Shipping Point			Net 30 days	635		
ITEM	QUANTITY	DESCRIPTION		IDENT. NO.	UNIT PRICE	TOTAL PRICE
		See notes on last sheet		33		
		PUMPS: RECIPROCATING, STEAM - GROUP X635-3 - For Humble Oil & Refining Co. Tanker				
		Description	Capacity G.P.M.	Discharge Press. P.S.I.		
1	1	7-1/2"x7"x10" V.D. F.O. Transfer	135	50		
2	See Appendix	Drawings				
2-a	See Appendix	Drawings for preliminary and/or foundation information, in accordance with Appendix B, Section III-A.				
2-b	See Appendix	Commercial type drawings for approval, in accordance with Appendix B, Section III-B.				
3	See Appendix	Instruction books in accordance with Appendix B, Section IV.				

PURCHASE ORDER NO.

H-573-635A-10

SHEET 1 OF 4 SHEETS
DISTRIBUTION COPY

This Number MUST Appear On All
Correspondence, Invoices, Packages
And Shipping Papers.

EXX-MOR-002522

DISTRIBUTION COPY

FORM PA-POD-2 (3322102)

ITEM	QUANTITY	DESCRIPTION	RECORDS
		Air chambers will be furnished by the shipbuilder. The pump shall handle fuel oil at 2° A.P.I. gravity (viscosity at 122°F., 500 seconds Saybolt Furol) at viscosities of 70 to 700 seconds Saybolt Furol. Connections for shipbuilders piping shall be suitable for withstanding loads imposed on them due to normal expansion and contraction of the piping attached thereto in accordance with good marine practice. Pump cylinders are to be provided with heavy centrifugally cast liners, positively secured. The shipbuilder will provide steam, exhaust, suction, discharge and relief valves, and pressure gages and thermometers as required. All lagging will be furnished and applied by the shipyard. The pump must be tested hydrostatically to two times the working pressure. After completion of shop tests at Vendor's plant, any packing liable to cause corrosion by remaining in place during shipping or storage of the equipment is to be removed, stowed separately, and carefully marked so as to assist in its reinstallation. Rods or shafts, in way of the packing, are to be properly protected from corrosion during shipment or storage of the equipment. The above equipment shall be cleaned, preserved, packed and packaged for domestic shipment and limited storage. The pump must be substantially tagged or clearly marked for identification with the item and purchase order number thereof. <u>APPLICABLE APPENDICES</u> A-573 B-573 Rev. A, dated June 26, 1963 Vendors plans were due in Newport News prior to the placement of this order. Your prompt forwarding of plans will be appreciated.	

DISTRIBUTION COPY

FORM PA-POD-2 (3322102)

PURCHASE ORDER NO.

H-573-635A-10

ITEM	QUANTITY	DESCRIPTION	RECORDS																												
		This pump shall be of the double-acting marine reciprocating type and must be capable of operating at the given rating when supplied with steam at 200 p.s.i.g. with an exhaust back pressure of 35 p.s.i.g. and must be suitable for the steam relief valve setting of 230 psig and 494°F. Steam, exhaust, suction and discharge connections shall be flanged to the appropriate A.S.A. Standard. All suction and discharge connections not used shall be provided with blank flanges. Materials shall be as follows: <u>Liquid End</u> <table><tr><td>Cylinders</td><td>Nodular iron</td></tr><tr><td>Liners</td><td>Ni-resist</td></tr><tr><td>Stuffing box bushings and glands</td><td>Steel</td></tr><tr><td>Pistons</td><td>Cast iron</td></tr><tr><td>Piston rods</td><td>Stainless steel</td></tr><tr><td>Valve and valve seats</td><td>Stainless steel</td></tr><tr><td>Springs</td><td>Stainless steel</td></tr></table> <u>Steam End</u> <table><tr><td>Cylinder, chests and head</td><td>Nodular iron</td></tr><tr><td>Pistons and piston rings</td><td>Cast iron</td></tr><tr><td>Piston rods and valve rods</td><td>Steel</td></tr><tr><td>Stuffing box bushings and glands</td><td>Bronze, Comp. "G"</td></tr><tr><td>Valve gear parts</td><td>Forged steel, bronze bushed</td></tr><tr><td>Gland bolts and nuts</td><td>Brass</td></tr><tr><td>Gland packing</td><td>Semi-metallic</td></tr></table> The liquid end valve cover plates shall be held securely in place by means of studs extending through the cover plate and shall be fitted with lock nuts and jack bolts. The steam end of the pump shall be provided with a suitable bracket or foot with slotted holes for bolting to sway braces. The steam valves are to be of the piston type. The pump shall have 1/2" steam end drain connections.	Cylinders	Nodular iron	Liners	Ni-resist	Stuffing box bushings and glands	Steel	Pistons	Cast iron	Piston rods	Stainless steel	Valve and valve seats	Stainless steel	Springs	Stainless steel	Cylinder, chests and head	Nodular iron	Pistons and piston rings	Cast iron	Piston rods and valve rods	Steel	Stuffing box bushings and glands	Bronze, Comp. "G"	Valve gear parts	Forged steel, bronze bushed	Gland bolts and nuts	Brass	Gland packing	Semi-metallic	
Cylinders	Nodular iron																														
Liners	Ni-resist																														
Stuffing box bushings and glands	Steel																														
Pistons	Cast iron																														
Piston rods	Stainless steel																														
Valve and valve seats	Stainless steel																														
Springs	Stainless steel																														
Cylinder, chests and head	Nodular iron																														
Pistons and piston rings	Cast iron																														
Piston rods and valve rods	Steel																														
Stuffing box bushings and glands	Bronze, Comp. "G"																														
Valve gear parts	Forged steel, bronze bushed																														
Gland bolts and nuts	Brass																														
Gland packing	Semi-metallic																														

SHEET NO. 2

DISTRIBUTION COPY

PURCHASE ORDER NO.

H-573-635A-10

NEWPORT NEWS SHIPBUILDING AND DRY DOCK COMPANY
PUMPS: RECIPROCATING, STEAM

PURCHASE ORDER NO.

DISTRIBUTION COPY

FORM PA-POD-2 (3322102)

H-573-635A-10

ITEM	QUANTITY	DESCRIPTION	RECORDS
		Manufacturing Authorization: Release to manufacture is withheld pending approval of vendor's drawings. Any work done prior to approval of the drawings and authorization to proceed with work, except by specific written instructions from this Company, will be at the vendor's own risk. Release to manufacture will be given by a letter. Option: In the event the Owners, by February 15, 1964, contract with the Purchaser for the construction of a tanker essentially duplicating that for which the equipment specified herein is to be used, the Vendor agrees to furnish to the Purchaser equipment duplicating that specified herein at a price of: In the event the Owners, within eighteen months, contract with the Purchaser for the construction of a third and/or fourth vessel of the same design, the Vendor agrees to furnish to the purchaser a third and/or fourth set of equipment duplicating that specified herein at the price of the second shipset of equipment escalated in accordance with the Bureau of Labor Statistics Index for Metal and Metal Products, but not to exceed 10%. Total Price:	
ARB WJH-HMP-M FBB* AOW ESP JLW JTT		<u>FOR NEWPORT NEWS INFORMATION ONLY:</u> Schd. Req'd. Date 4-6-64 Wanted 4-6-64 This order should have been placed by 7-8-63 in order to meet the "required in yard" date, when using average lead time.	
7-31 8-6			

SHEET NO. 4

DISTRIBUTION COPY

PURCHASE ORDER NO.

H-573-635A-10

EXX-MOR-002525