CERTIFICATE NUMBER	26-0662457-PDA
EFFECTIVE DATE	03-Aug-2026
EXPIRY DATE	02-Aug-2031
ABS TECHNICAL OFFICE	London Engineering Department

CERTIFICATE OF

Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

B. HEPWORTH AND CO LTD

located at

HEPWORTH MARINE AND WYNN MARINE LTD, 2-4 MERSE ROAD, NORTH MOONS MOAT, , REDDITCH, United Kingdom, B98 9HL

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product:	**Window Wiper**
Model:	**Heavy and Medium Duty Pantograph and Pendulum marine windscreen wiper systems**
Endorsements:	
Tier:	**2 - PDA Issued**

This Product Design Assessment (PDA) Certificate remains valid until 02/Aug/2031 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

Amit Gupta,Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

Sensitivity: Internal & Restricted

B. HEPWORTH AND CO LTD
HEPWORTH MARINE AND WYNN MARINE LTD
2-4 MERSE ROAD, NORTH MOONS MOAT
REDDITCH WORCESTER
United Kingdom B98 9HL
Telephone: 44-1527-61243
Fax: 44-1527-66836
Email: sarahphelps@b-hepworth.com
Web: www.b-hepworth.com

Tier: 2 - PDA Issued

Product: **Window Wiper**
Model: **Heavy and Medium Duty Pantograph and Pendulum marine windscreen wiper systems**
Endorsements:

Intended Service:
Wipers for use on ABS Classed Vessels and Offshore Facilities in accordance with the listed ABS Rules.

Description:
Pantograph and pendulum window wiper, single and twin blades. Specifications/data sheet as per attachment.

Rating:
Standard Details: 2 Speed; Self Parking; Insulated Earth Return; 12V and 24V DC for 20 Nm, 50 Nm & 80 Nm or 12V, 24V, 72V 110V DC, 110V- 220V AC for 70 Nm, 100 Nm

20Nm/30Nm Medium duty window wiper.
Pantograph Arms Length: 12” to 24” (310mm to 610mm) nom
Pendulum Arms Lengths: 12” to 28” (310mm to 710mm) nom
Blade lengths: 12” to 24” (310mm to 610mm) nom
Angles of Arc - Variable

50Nm Heavy duty window wiper
Pantograph Arms Length: 12” to 34” (310mm to 860mm) nom
Pendulum Arms Lengths: 12” to 34” (310mm to 860mm) nom
Blade lengths: 12” to 28” (310mm to 710mm) nom or 32” (810mm), nom

70Nm & 80Nm Extra heavy duty window wiper.
Pantograph Arms Length: 24” to 60” (610mm to 1525mm) nom
Pendulum Arms Lengths: 24” to 60” (610mm to 1525mm) nom
Blade lengths: 12” to 28” (310mm to 710mm) nom or 32” (810mm), 36” (915mm) & 39” (1000mm)

100Nm Extra heavy duty window wiper.
Pantograph Arms Length: 24” to 72” (610mm to 1830mm) nom
Pendulum Arms Lengths: 24” to 72” (610mm to 1830mm) nom
Blade lengths: 12” to 28” (310mm to 710mm) nom or 32” (810mm), 36” (915mm), 39” (1000mm)
Double blade configuration up to 1500mm

110Nm Extra heavy duty window wiper.
Pantograph Arms Length: 24” to 89” (610mm to 2500mm) nom
Pendulum Arms Lengths: 24” to 72” (610mm to 1830mm) nom
Blade lengths: 12” to 28” (310mm to 710mm) nom or 32” (810mm), 36” (915mm), 39” (1000mm)
Double blade configuration up to 1500mm

Operated by various controls including a rotary switch, toggle switch, rocker switch or a multi-speed/function control system.

Full detail of products is at the attached document "Products datasheet".

Service Restriction:
1. Unit Certification is not required for this product.
2. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

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3. Wipers are not suitable for hazardous area installations as defined in 4-8-3/13 of Marine Vessels Rules.

Comments:
The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes/Drawing/Documentation:
Drawing No. DOC, ABS Panto_Pend DofC, Revision: 1, Pages: 1

----------Previously Submitted Documents----------
Drawing No. 100Nm, 100Nm extra heavy duty window wiper, Revision: 2,
Drawing No. 110Nm, Extra heavy duty window wiper, Revision: -,
Drawing No. 20Nm, 20Nm Medium duty window wiper, Revision: 2,
Drawing No. 50Nm, Heavy Duty Window Wiper, Revision: -,
Drawing No. 70Nm, 70Nm extra heavy duty window wiper, Revision: 2,
Drawing No. 80Nm, 80Nm extra heavy duty window wiper, Revision: 2,

Terms of Validity:
This Product Design Assessment (PDA) Certificate remains valid until 02/Aug/2031 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

STANDARDS

ABS Rules:
2026 Rules for Conditions of Classification: 1A-1-4/7.7, 1A-1-A3, 1A-1-A4, which covers the following:
2026 Rules for Building and Classing Marine Vessels: 4-8-3/Table 2, 4-9-9/13

2026 Rules for Conditions of Classification - Offshore Units: 1B-1-4/9.7, 1B-1-A2, 1B-1-A3 which covers the following:
2026 Rules for Building and Classing Offshore Units: 4-3-3/Table 1

National:
NA

International:
NA

Government:
NA

EUMED:
NA

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Tier: 2 - PDA Issued

OTHERS:
Manufacturers Standards

Attachment to PDA Certificate No. 26-0662457-PDA

Company: B. HEPWORTH AND CO LTD

Product: Window Wiper

Model: Heavy and Medium Duty Pantograph and Pendulum marine windscreen wiper systems

Issuance Date: 03-Aug-2026

Expiration Date: 02-Aug-2031

Revision Number: 0

HEPWORTH MARINE
INTERNATIONAL

20Nm

Medium Duty Window Wiper

For low speed vessels with small windows

- A compact unit
- Pantograph and pendulum
- Arms with blades up to 24 ins. (610mm) are available
- Fixed arc or variable arc models
- 12 and 24 volt DC
- Two speeds
- Self parking facility
- Insulated earch return and EMC filter are standard
- Operated by various controls including a rotary switch, toggle switch, rocker switch or a multi-speed / function control system



www.b-hepworth.com

B. HEPWORTH
AND COMPANY LIMITED



20Nm
Medium Duty Window Wiper

For low speed vessels with small windows

SPECIFICATIONS

Standard Details	2 Speed; Self Parking; Insulated Earth Return; 12v and 24v
Angles of Arc	Variable - at stated angles
Pantograph Units	40°, 50°, 60°, 70°, 80°, 90°
Pendulum Units	40°, 50°, 60°, 70°, 80°, 90°
Spindle Centres	Between Drive Liner & Idler = 50mm
Drive Liner	M20 - Brass Liner/12mm SS Spindle
Liner Overall Length	Bulkhead Thickness + 65mm
Idler Liner	M20 - Brass Liner/12mm SS Spindle
Bracket	No notation used for Bracket
Unit Weight	Allowing for the maximum arm and blade lengths; 3.5Kgs (7.7 lbs)

WIPER ARMS & BLADES

Pantograph Arms

P613	Medium Duty
Lengths	12" to 24" (310mm to 610mm) nom
Drive Head	12mm
Blade Clip	14mm

Pendulum Arms

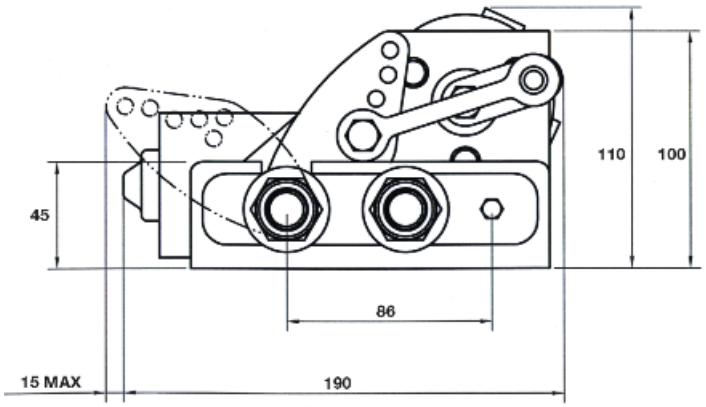
F63	Medium Duty
Lengths	12" to 28" (310mm to 710mm) nom
Drive Head	12mm
Blade Clip	14mm

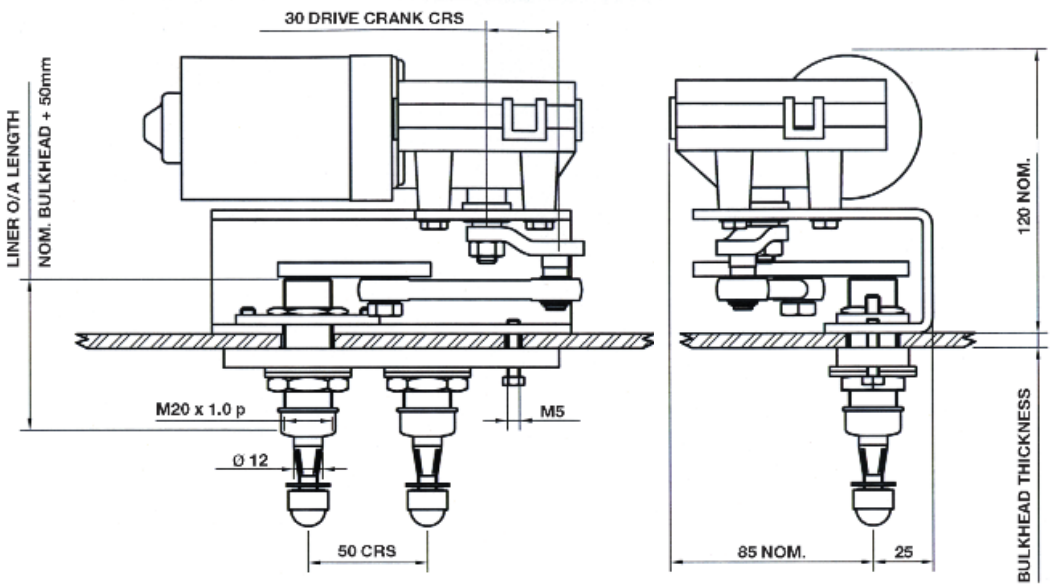
Blades

B140	Curved Blade
Lengths	12" to 24" (310mm to 610mm) nom

For use with arm types:

Pendulum	F63
Pantograph	P614





*Measurements are for illustrative purposes only

HEPWORTH PANTOGRAPH

ABS

B Hepworth & Co Ltd

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North Moons Moat, Redditch
Worcestershire B98 9HL

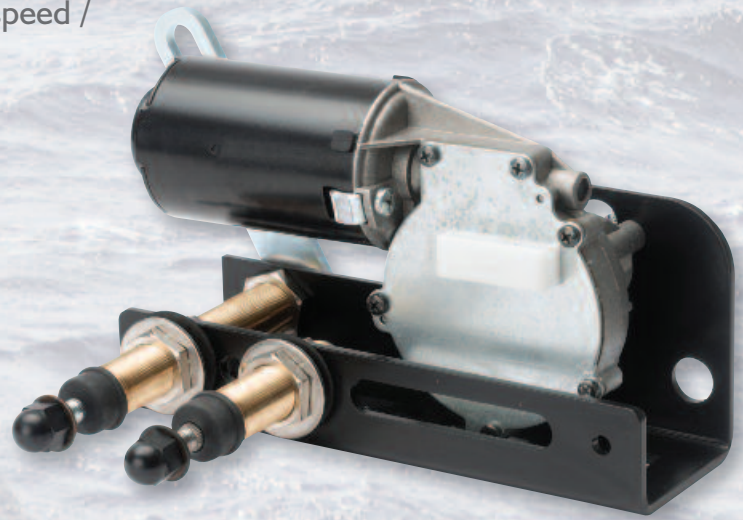
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INTERNATIONAL

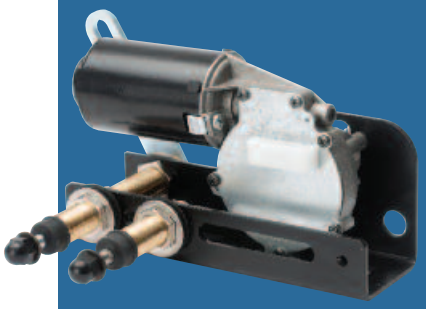
50Nm
Heavy Duty Window Wiper
Ideal for average to high speed vessels

- Pantograph and pendulum
- Low maintenance
- Silent running
- A compact and robust unit
- Arms with blades up to 39ins. (1000mm) available for average speed vessels
- Arms with blades up to 24ins. (610mm) available for high speed vessels
- Fixed arc or variable arc models
- 12 and 24 volt DC
- Two speeds
- Self parking facility
- Insulated earth return
- Operated by various controls including a rotary switch, toggle switch, rocker switch or a multi-speed / function control system



www.b-hepworth.com

B. HEPWORTH
AND COMPANY LIMITED



50Nm
Heavy Duty Window Wiper

Ideal for average to high speed vessels

SPECIFICATIONS

Standard Details	2 Speed; Self Parking; Insulated Earth Return; 12v and 24v
Angles of Arc - Fixed	
Pantograph Units	25° to 90° (in 5° increments only)
Pendulum Units	25° to 115° (in 5° increments only)
Angles of Arc - Variable	
Pantograph Units	35°, 40°, 45°, 50°, 55°, 60°, 70°, 80°, 90°
Pendulum Units	35°, 40°, 45°, 50°, 55°, 60°, 70°, 80°, 90° 100°, 110°, 120°
Spindle Centres	Between Drive Liner & Idler = 50mm **Pantograph Units only**
Drive Liner	M20 - Brass Liner/12mm SS Spindle **Pantograph & Pendulum Units**
Liner Overall Length	Bulkhead Thickness + 120mm Liners over 125mm are available at extra cost
Idler Liner	M20 - Brass Liner/12mm SS Spindle **Pantograph Units only**
Bracket	C - Compact Bracket
Unit Weight	Allowing for the maximum arm and blade lengths; 4Kgs (8.8 lbs)

WIPER ARMS & BLADES

Pantograph Arms

P615 Medium Duty
Lengths 12" to 34" (310mm to 860mm) nom
Drive Head 12mm
Idler Head 12mm
Blade Clip 14mm

P620 Medium Duty
Lengths 12" to 34" (310mm to 860mm) nom
Drive Head 12mm
Blade Clip 20mm

Pendulum Arms

F63 Medium Duty
Lengths 12" to 34" (310mm to 860mm) nom
Drive Head 12mm
Blade Clip 14mm

F73 Medium Duty
Lengths 12" to 34" (310mm to 860mm) nom
Drive Head 12mm
Blade Clip 20mm

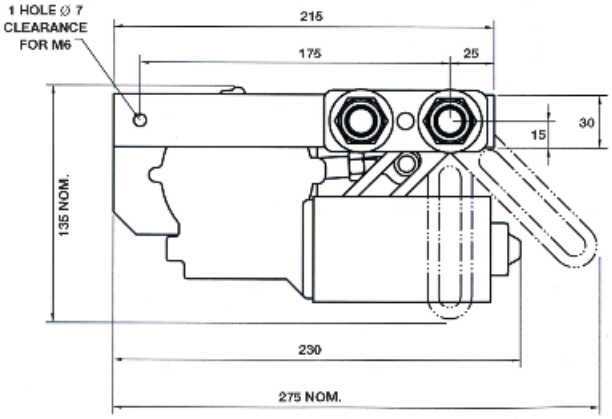
Blades

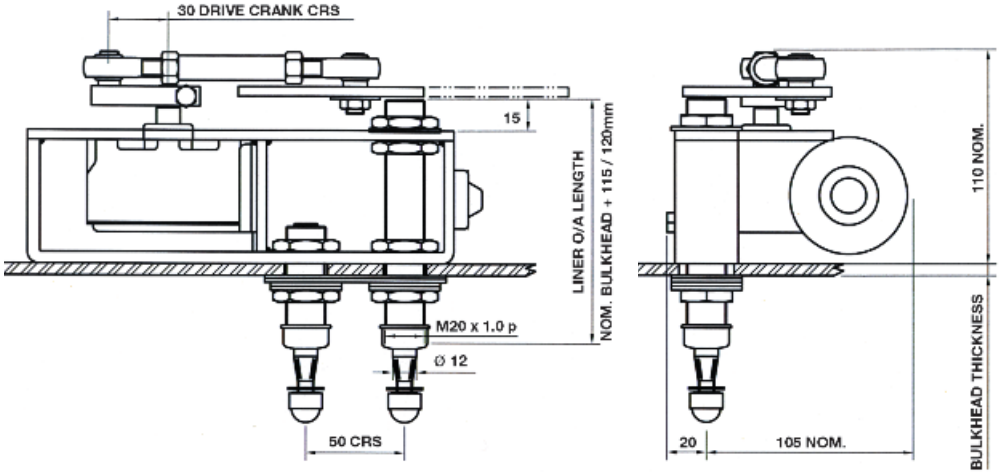
B140 Curved Blade
Lengths 12" to 28" (310mm to 710mm) nom

For use with arm types:
Pendulum F63 **Pantograph** P615

B140 Curved Blade
Lengths 32" (810mm), nom

For use with arm types:
Pendulum F73 **Pantograph** P620





*Measurements are for illustrative purposes only

HEPWORTH PANTOGRAPH

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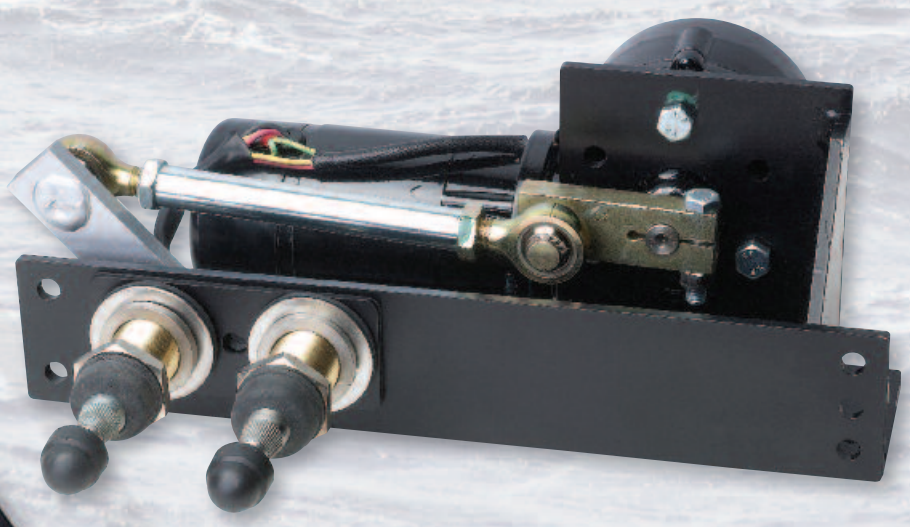
HEPWORTH MARINE
INTERNATIONAL

70Nm

Extra Heavy Duty Window Wiper

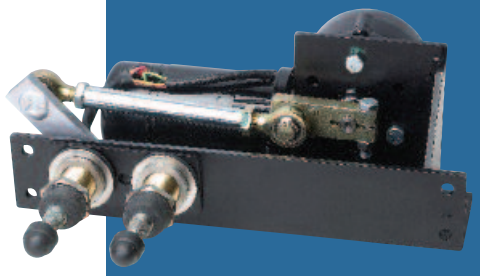
High voltage systems ideal for average to high speed vessels

- Pantograph and pendulum
- Arms with blades up to 59ins. (1500mm) available for average speed vessels
- Arms with blades up to 39ins. (1000mm) available for high speed vessels
- Fixed arc or variable arc models
- Ranges from 48 to 230 volt AC or DC
- Two speeds
- Self parking facility
- Insulated earth return
- Operated by a multi-speed / function control system



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B. HEPWORTH
AND COMPANY LIMITED



70Nm
Extra Heavy Duty Window Wiper

High voltage systems ideal for average to high speed vessels

SPECIFICATIONS

Standard Details	2 Speed; Self Parking; Insulated Earth Return: 12v, 24v, 72v, 110v DC, 110v - 220v AC
Angles of Arc - Fixed	
Pantograph Units	25° to 90° (in 5° increments only)
Pendulum Units	25° to 115° (in 5° increments only)
Angles of Arc - Variable	
Pantograph Units	40° to 90° (in 5° increments only)
Pendulum Units	40° to 90° (in 5° increments only)
Spindle Centres	Between Drive Liner & Idler = 60mm **Pantograph Units only**
Drive Liner	M26 - Brass Liner/16mm SS Spindle **Pantograph & Pendulum Units**
Liner Overall Length	Bulkhead Thickness + 55mm
Idler Liner	M26 - Brass Liner/16mm SS Spindle **Pantograph Units only**
Bracket	C - Compact Bracket
Unit Weight	Allowing for the maximum arm and blade lengths; 8Kgs (17.6 lbs)

WIPER ARMS & BLADES

Pantograph Arms

P84 Heavy Duty
Lengths 24" to 60" (610mm to 1525mm) nom
Drive Head 16mm
Blade Clip 14mm & 20mm

Pendulum Arms

F80 Heavy Duty
Lengths 24" to 60" (610mm to 1525mm) nom
Drive Head 16mm
Blade Clip 14mm

F81 Heavy Duty
Lengths 24" to 60" (610mm to 1525mm) nom
Drive Head 16mm
Blade Clip 20mm

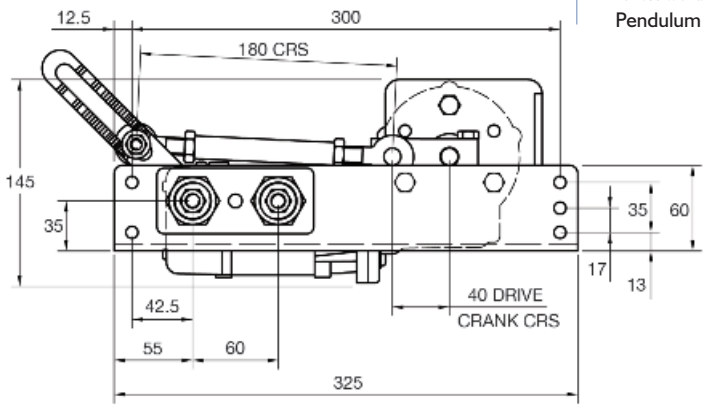
Blades

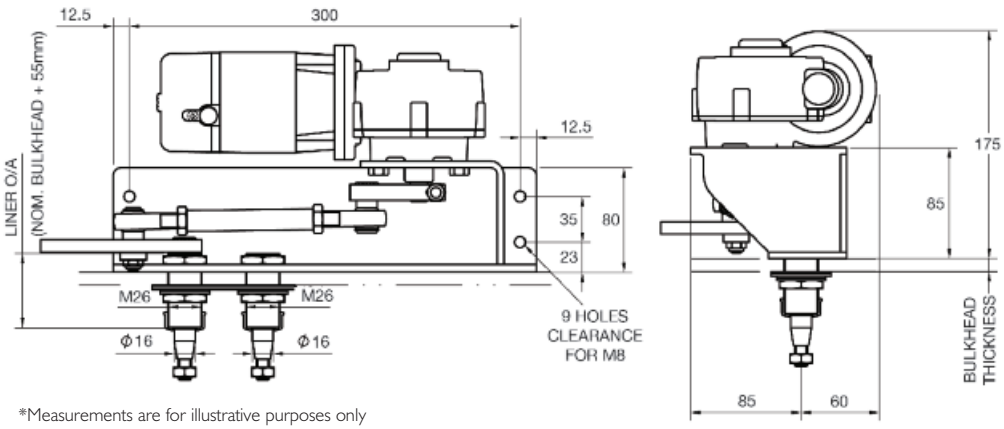
B140 Curved Blade
Lengths 12" to 28" (310mm to 710mm) nom

For use with arm types:
Pendulum F80 **Pantograph** P84

B140 Curved Blade
Lengths 32" (810mm), 36" (915mm), 39" (1000mm)

For use with arm types:
Pendulum F81 **Pantograph** P84





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HEPWORTH PANTOGRAPH

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E marine@b-hepworth.com

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HEPWORTH MARINE
INTERNATIONAL

80Nm

Extra Heavy Duty Window Wiper

Low voltage systems ideal for average to high speed vessels

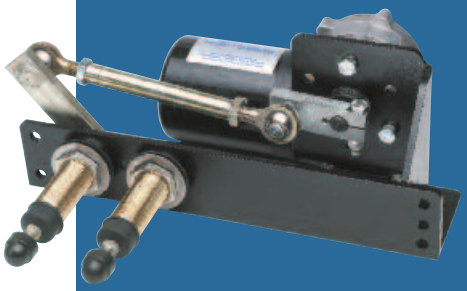
- Pantograph and pendulum
- Silent running
- Arms with blades up to 59ins. (1500mm) available for average speed vessels
- Arms with blades up to 39ins. (1000mm) available for high speed vessels
- Fixed arc or variable arc models
- 12 and 24 volt DC
- Two speeds
- Self parking facility
- Insulated earth return
- Operated by various controls including a rotary switch, rocker switch or a multi-speed / function control system





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AND COMPANY LIMITED



80Nm
Extra Heavy Duty Window Wiper

Low voltage systems ideal for average to high speed vessels

SPECIFICATIONS

Standard Details	2 Speed; Self Parking; Insulated Earth Return; 12v and 24v
Angles of Arc - Fixed	
Pantograph Units	25° to 90° (in 5° increments only)
Pendulum Units	25° to 115° (in 5° increments only)
Angles of Arc - Variable	
Pantograph Units	40° to 90° (in 5° increments only)
Pendulum Units	40° to 90° (in 5° increments only)
Spindle Centres	Between Drive Liner & Idler = 60mm **Pantograph Units only**
Drive Liner	M26 - Brass Liner/16mm SS Spindle **Pantograph & Pendulum Units**
Liner Overall Length	Bulkhead Thickness + 55mm
Idler Liner	M20 - Brass Liner/16mm SS Spindle **Pantograph Units only**
Bracket	C - Compact Bracket
Unit Weight	Allowing for the maximum arm and blade lengths; 8Kgs (17.6 lbs)

WIPER ARMS & BLADES

Pantograph Arms

P84 Heavy Duty
Lengths 24" to 60" (610mm to 1525mm) nom
Drive Head 16mm
Blade Clip 14mm & 20mm

Pendulum Arms

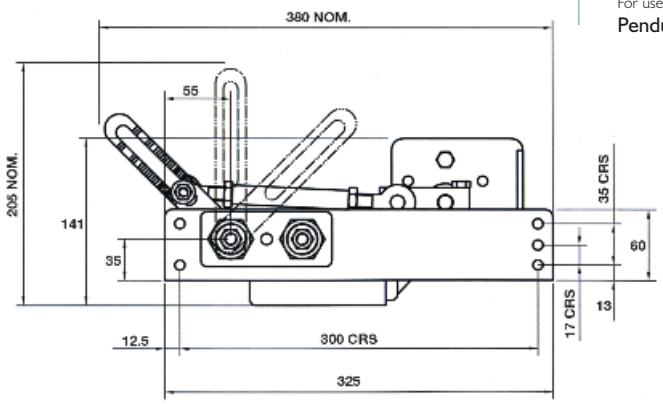
F80 Heavy Duty
Lengths 24" to 60" (610mm to 1525mm) nom
Drive Head 16mm
Blade Clip 14mm

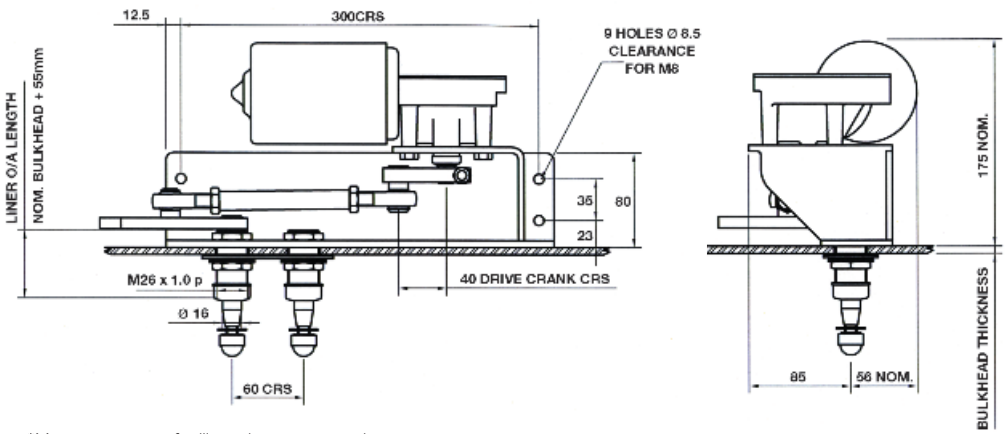
F81 Heavy Duty
Lengths 24" to 60" (610mm to 1525mm) nom
Drive Head 16mm
Blade Clip 20mm

Blades

B140 Curved Blade
Lengths 12" to 28" (310mm to 710mm) nom
For use with arm types:
Pendulum F80 **Pantograph** P84

B140 Curved Blade
Lengths 32" (810mm), 36" (915mm) & 39" (1000mm)
For use with arm types:
Pendulum F81 **Pantograph** P84





*Measurements are for illustrative purposes only

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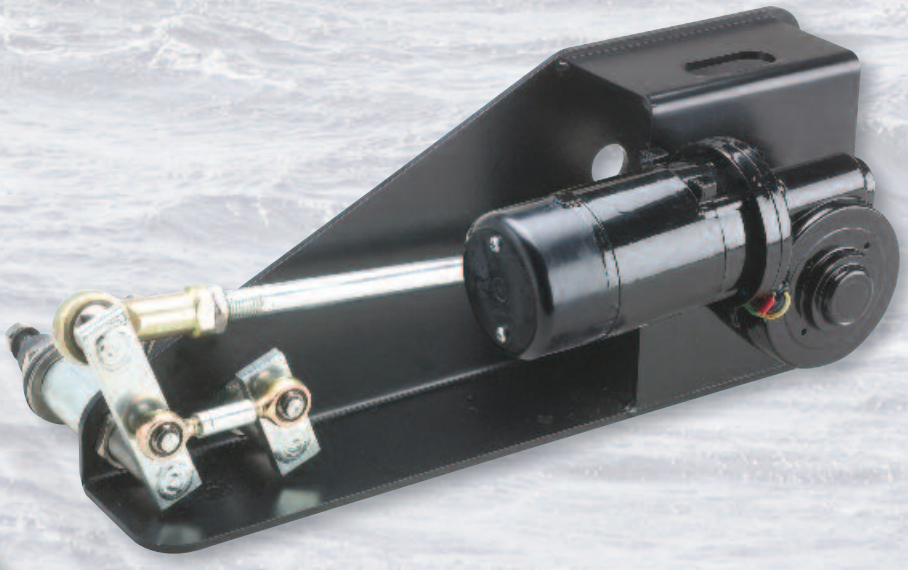
HEPWORTH MARINE
INTERNATIONAL

100Nm

Extra Heavy Duty Window Wiper

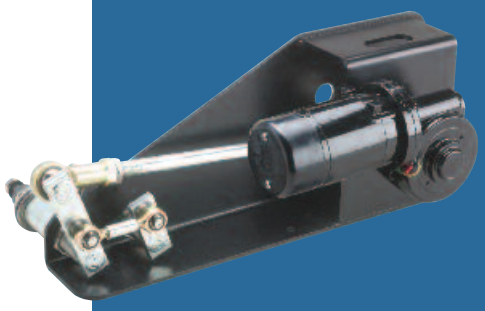
High voltage systems ideal for average to high speed vessels

- Pantograph and pendulum
- Arms with blades up to 78ins. (2000mm) available for average speed vessels
- Arms with blades up to 59ins. (1500mm) available for high speed vessels
- Fixed arc or variable arc models
- Ranges from 48 to 230 volt AC or DC
- Two speeds
- Self parking facility
- Insulated earth return
- Operated by a multi-speed / function control system



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AND COMPANY LIMITED



100Nm
Extra Heavy Duty Window Wiper

High voltage systems ideal for average to high speed vessels

SPECIFICATIONS

Standard Details	2 Speed; Self Parking; Insulated Earth Return: 12v, 24v, 72v, 96v, 110v DC, 110v - 220v AC
Angles of Arc - Fixed Pantograph Units	45° to 90° (in 5° increments only)
Pendulum Units	45° to 115° (in 5° increments only)
Spindle Centres	Between Drive Liner & Idler = 60mm **Pantograph Units only**
Drive Liner	M26 - Brass Liner/16mm SS Spindle **Pantograph & Pendulum Units**
Liner Overall Length	Bulkhead Thickness + 55mm
Idler Liner	M26 - Brass Liner/16mm SS Spindle **Pantograph Units only**
Bracket	L - Left Hand Bracket; R - Right Hand Bracket;
Unit Weight	Allowing for the maximum arm and blade lengths; 9.2Kgs (20.0 lbs)

WIPER ARMS & BLADES

Pantograph Arms

P84 Heavy Duty
Lengths 24" to 98" (610mm to 2500mm) nom
Drive Head 16mm
Blade Clip 14mm & 20mm

Pendulum Arms

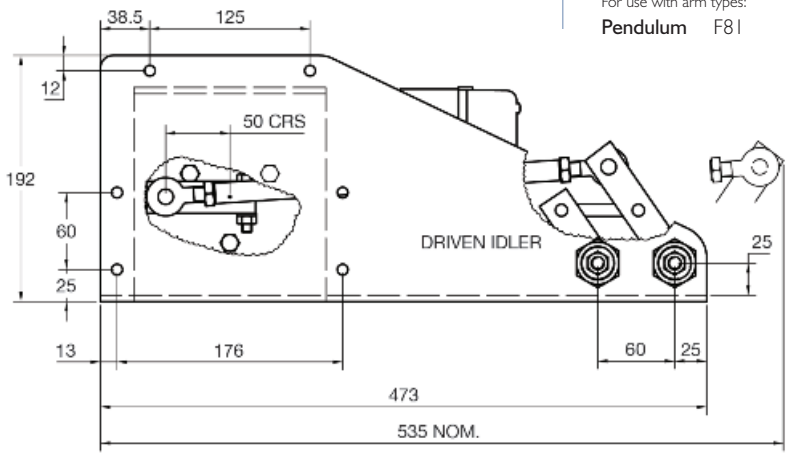
F80 Heavy Duty
Lengths 24" to 72" (610mm to 1830mm) nom
Drive Head 16mm
Blade Clip 14mm

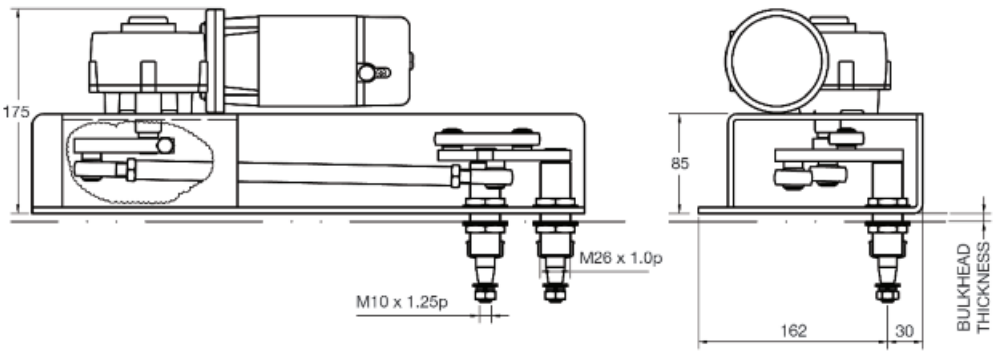
F81 Heavy Duty
Lengths 24" to 72" (610mm to 1830mm) nom
Drive Head 16mm
Blade Clip 20mm

Blades

B140 Curved Blade
Lengths 12" to 28" (310mm to 710mm) nom
For use with arm types:
Pendulum F80 **Pantograph** P84

B140 Curved Blade
Lengths 32" (810mm), 36" (915mm), 39" (1000mm)
For use with arm types:
Pendulum F81 **Pantograph** P84





*Measurements are for illustrative purposes only

HEPWORTH PANTOGRAPH

ABS

B Hepworth & Co Ltd

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North Moons Moat, Redditch
Worcestershire B98 9HL

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F +44 (0)1527 66836
E marine@b-hepworth.com

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HEPWORTH MARINE
INTERNATIONAL

110Nm

Extra Heavy Duty Window Wiper

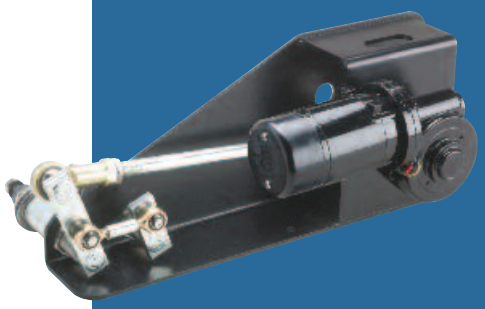
Low voltage systems ideal for average to high speed vessels

- Pantograph and pendulum
- Arms with blades up to 78ins. (2000mm) available for average speed vessels
- Arms with blades up to 59ins. (1500mm) available for high speed vessels
- Fixed arc or variable arc models
- 24 volt DC
- Two speeds
- Self parking facility
- Insulated earth return
- Operated by various controls including a rotary switch, rocker switch or a multi-speed / function control system



www.b-hepworth.com

B. HEPWORTH
AND COMPANY LIMITED



110Nm

Extra Heavy Duty Window Wiper

Low voltage systems ideal for average to high speed vessels

SPECIFICATIONS

Standard Details	2 Speed; Self Parking; Insulated Earth Return; 24v
Angles of Arc - Fixed	
Pantograph Units	45° to 90° (in 5° increments only)
Pendulum Units	45° to 115° (in 5° increments only)
Spindle Centres	Between Drive Liner & Idler = 60mm **Pantograph Units only**
Drive Liner	M26 - Brass Liner/16mm SS Spindle **Pantograph & Pendulum Units**
Liner Overall Length	Bulkhead Thickness + 55mm
Idler Liner	M26 - Brass Liner/16mm SS Spindle **Pantograph Units only**
Bracket	L - Left Hand Bracket; R - Right Hand Bracket;
Unit Weight	Allowing for the maximum arm and blade lengths; 9.2Kgs (20.0 lbs)

WIPER ARMS & BLADES

Pantograph Arms

P84 Heavy Duty
Lengths 24" to 72" (610mm to 1830mm) nom
Drive Head 16mm
Blade Clip 14mm & 20mm

Pendulum Arms

F80 Heavy Duty
Lengths 24" to 72" (610mm to 1830mm) nom
Drive Head 16mm
Blade Clip 14mm

F81 Heavy Duty
Lengths 24" to 72" (610mm to 1830mm) nom
Drive Head 16mm
Blade Clip 20mm

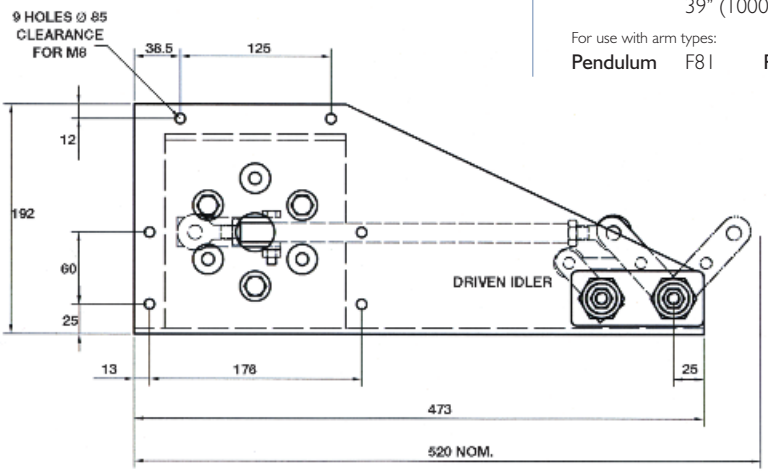
Blades

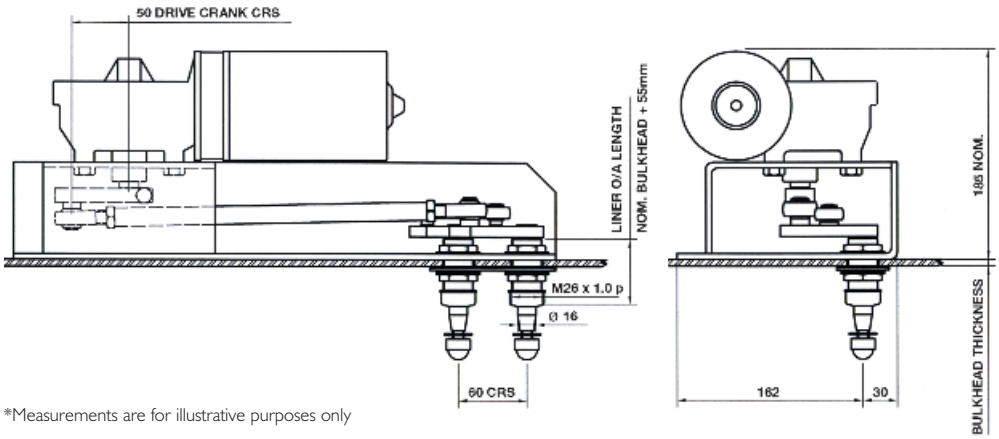
B140 Curved Blade
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For use with arm types:
Pendulum F80 **Pantograph** P84

B140 Curved Blade
Lengths 32" (810mm), 36" (915mm), 39" (1000mm)

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*Measurements are for illustrative purposes only

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CERTIFICATE NUMBER	26-0610522-PDA
EFFECTIVE DATE	13-Jul-2026
EXPIRY DATE	12-Jul-2031
ABS TECHNICAL OFFICE	London Engineering Department

CERTIFICATE OF

Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

B. HEPWORTH AND CO LTD

located at

HEPWORTH MARINE AND WYNN MARINE LTD, 2-4 MERSE ROAD, NORTH MOONS MOAT, , REDDITCH, United Kingdom, B98 9HL

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product:	**Window Wiper**
Model:	**Wynn Straight line wipers Type D MK V & Type C.**
Endorsements:	
Tier:	**2 - PDA Issued**

This Product Design Assessment (PDA) Certificate remains valid until 12/Jul/2031 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

Peter Edward (Peter Deegan) Lewis
Deegan,Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

Sensitivity: Internal & Restricted

B. HEPWORTH AND CO LTD
HEPWORTH MARINE AND WYNN MARINE LTD
2-4 MERSE ROAD, NORTH MOONS MOAT
REDDITCH WORCESTER
United Kingdom B98 9HL
Telephone: 44-1527-61243
Fax: 44-1527-66836
Email: sarahphelps@b-hepworth.com
Web: www.b-hepworth.com

Tier: 2 - PDA Issued

Product: **Window Wiper**
Model: **Wynn Straight line wipers Type D MK V & Type C.**
Endorsements:

Intended Service:
Straight Line Wipers for use on ABS Classed Vessels and Offshore Facilities in accordance with the listed ABS Rules and International Standards.

Description:
Straightline Wipers for Marine Applications. (data sheet attached).

Rating:
Type D MkV - Externally mounted motor. Motor housing fully sealed to IP67.
Type C - Internally mounted motor, IP 23.
Input voltage: 24VDC or 115/230 VAC single phase or three phase

-Single
Stroke: Minimum - 305mm, Maximum - 2260mm
Blade: Maximum - 2000mm
Arm: Maximum - 1500mm

-Twin
Stroke: Minimum - 585mm, Maximum - 3220mm
Blade: Maximum - 1000mm
Arm: Maximum - 1000mm
Wipe Speed: fast/slow : 1.4m per second / 0.7m per second
AC Motor: Induction type: 100, 115, 230v
DC Motor.: Permanent magnet; 24v
3-PH Motor: Fast speed / slow speed / intermittent
1-PH and DC: Normal speed / intermittent 8000 motor 3 speed 0.7/1.1/1.4M/sec
De-icing heater: 200 watts per meter
Park Sensor: Reed switch
Spray Nozzles: Window wipers with a stroke of 610mm up to 1015mm have one wash nozzle fitted in the center of the wiper. Single arm wipers with strokes of 1040mm and longer have two nozzles.
Mounting: Above, below or vertical on the window.

-Controllers:

Wynn Marine series 1000 wiper controller:
• Fast and continuous speed mode
• Automatic self-parking
• Intermittent mode with 4 pre-set delay times (4-20 sec)
• Group push button screen wash
• Auto shut-off safety feature
• Compact size for easy installation

Wynn Marine Series 2000 Wiper Controller.
• Individual and group control
• One speed operation (1ph & DC)
• Fast and Slow Speed Operation (3 Phase AC only)

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Fax: 44-1527-66836
Email: sarahphelps@b-hepworth.com
Web: www.b-hepworth.com

• Automatic self-parking
• Intermittent mode with 15 delay positions (4-32 sec)
• Group heater switch
• Screen wash switch giving wash-wipe facility
• Wash wipe / air purge option
• Synchronised group wiping in intermittent mode

Wynn Marine Series 8000 Wiper Controller.
• Small size control panel – even for complex systems
• Individual and group control
• Multi-speed operation
• Automatic self-parking
• Variable intermittent modes
• Separate control of wiper de-icing heaters, heated windows etc.
• Plug and play connectivity
• Wash Wipe/Air Purge option
• Illuminated control panel with dimming facility

Service Restriction:
1. Unit Certification is not required for this product.
2. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
3. Wipers are not suitable for hazardous area installations as defined in 4-8-3/13 of Marine Vessels Rules.

Comments:
The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes/Drawing/Documentation:
Drawing No. ABS Straightl;ine DofC, Revision:-, Pages:1
Drawing No. TRA-014119-36-02A, REPORT ON THE EMC TESTING, Lab: TRaC Global Ltd., Dated: 12-09-2013, Revision No. 1, Pages: 67
----------Previously submitted drawings----------
Drawing No. 08A489 CR, EMC test report for the Wynn marine DMK5 straight line wiper, Revision: 1,
Drawing No. 09A029 CR, EMC test report for the wynn marine type c straight line wiper, Revision: 1,
Drawing No. 1424, Environmental test report, Revision: C,
Drawing No. 4816, Compass AQL EMC Test Report, Revision: 1,
Drawing No. HURSLEY EMC Test Report July 2008_08J049 CR, EMC Test report for the Wynn Marine control box,with control panel & DMK5 wiper, Revision: 1,
Drawing No. Test record sheet for Type C, Test record sheet for Type C, Revision: -,
Drawing No. Test record sheet for Type D, Test record sheet for Type D, Revision: -,
Drawing No. Type C No Control standard-i7, installation & operation manual Type C straight line wiper without control system, Revision: 7,
Drawing No. Type D mkV No Control standard-i6, Installation and operation manual type D MKV straight line wiper without control system, Revision: 6,
Drawing No. Type-C-Tech-sheet, Wynn straight line wiper type C, Revision: 4,
Drawing No. Type-D-Tech-sheet, Wynn straight line wiper type D MK V, Revision: 4,
Drawing No. dnv test report signed 2009 iss5 a, dnv test report signed 2009 iss5 a, Revision: 5,
Drawing No. dnv test report signed 2009 iss5 b, dnv test report signed 2009 iss5 b, Revision: 5

Terms of Validity:
This Product Design Assessment (PDA) Certificate remains valid until 12/Jul/2031 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever

occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

STANDARDS

ABS Rules:
2026 Rules for Conditions of Classification: 1A-1-4/7.7, 1A-1-A3, 1A-1-A4, which covers the following:
2026 Rules for Building and Classing Marine Vessels: 4-8-3/Table 2, 4-9-9/13

2026 Rules for Conditions of Classification - Offshore Units: 1B-1-4/9.7, 1B-1-A2, 1B-1-A3 which covers the following:
2026 Rules for Building and Classing Offshore Units: 4-3-3/Table 1

National:
NA

International:
IEC 60945 Ed. 4: 2002
ISO 17899:2004

Government:
NA

EUMED:
NA

OTHERS:
NA

Attachment to PDA Certificate No. 26-0610522-PDA

Company: B. HEPWORTH AND CO LTD (848715)

Product: Window Wiper

Model: Wynn Straight line wipers Type D MK V & Type C

Issuance Date: 13-Jul-2026

Expiration Date: 12-Jul-2031

Revision Number: -

Heavy Duty
Straight Line Wipers

Ideal for large ocean-going vessels or vessels requiring maximum coverage

- Type D MkV - Externally mounted motor. Motor housing fully sealed to IP67
- Type C - Internally mounted motor
- Arms with blades up to 39 ins (1000mm) available
- A large wiped window coverage can be achieved
- Reliable operation in extreme temperatures
- 2 or 3 speed operation with self parking facility
- Available in 24, 115 and 230 volt, single phase or three phase AC
- Operated by a multi-speed / function control facility
- Induction motor (brushes) are used for AC supplies



Type D MkV

Type C

www.b-hepworth.com

B. HEPWORTH
AND COMPANY LIMITED



Heavy Duty
Straight Line Wipers

Ideal for large ocean-going vessels

The heavy duty Type D (externally mounted motor) and Type C (internally mounted motor) straight line wipers offers the most advanced design of linear action window wiping systems for marine and other specialist applications.

A large wiped window coverage can be achieved, providing maximum view from the ships bridge whatever the weather, in temperatures from as low as -40°C to extreme tropical conditions. High powered AC induction motors provide an efficient, reliable and quiet operation. Incorporating the highest quality 316 Stainless Steel and other non-corrosive materials throughout, the Type D has the motor outboard so that it is only necessary to bring the electrical cables through the bulkhead. the motor housing is fully sealed to IP67 standards.

Standard controllers are available in 1-6 ways, with modular systems being supplied where there are more wipers or have a special requirement. Control features can include 2 or 3 speed operation, self parking, intermittent wipe, heater switch, master group control and wash/air purge functions.

SPECIFICATIONS

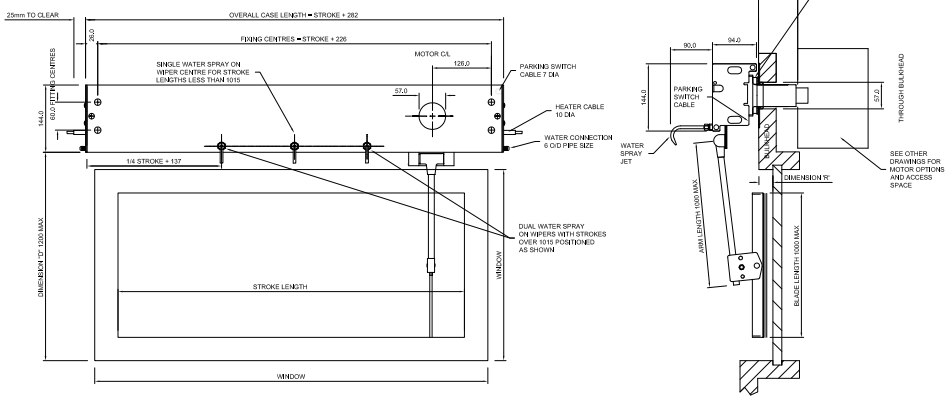
Single

Stroke . . . . . .Minimum - 305mm, Maximum - 2260mm
Blade . . . . . .Maximum - 1000mm
Arm . . . . . .Maximum - 800mm

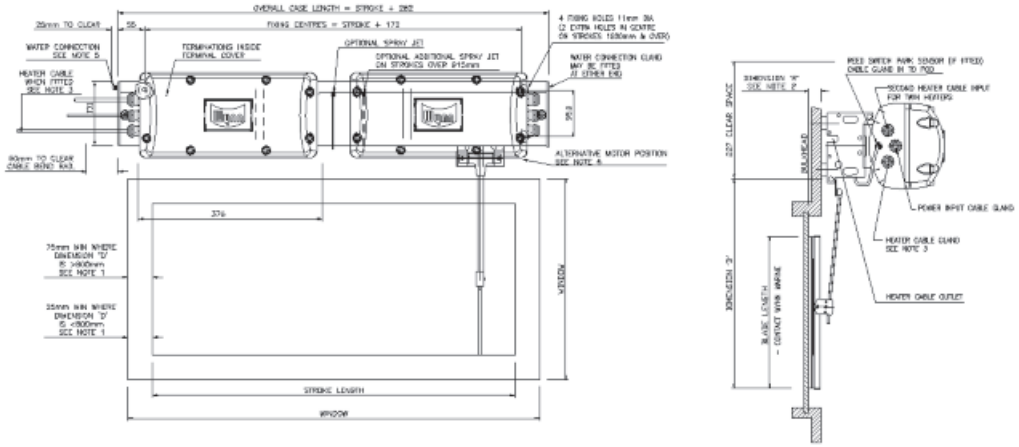
Twin

Stroke . . . . . .Minimum - 585mm, Maximum - 3500mm
(over 3500mm can be supplied upon request)
Blade . . . . . .Maximum - 800mm
Arm . . . . . .Maximum - 800mm
Wipe Speed: fast/slow . 1.4m per second / 0.7m per second
AC Motor . . . . . Induction type: 100, 115, 230v
DC Motor. . . . . Permanent magnet; 24v
3-PH Motor . . . . . Fast speed / slow speed / intermittent
1-PH and DC . . . . . Normal speed / intermittent
8000 motor 3 speed 0.7/1.1/1.4n/sec
De-icing heater. . . . . 200 watts per metre
Park Sensor. . . . . Reed switch
Spray Nozzles. . . . . 1 up to 990mm stroke, 2 if > 1015mm stroke
6mm overall diameter tubing
Mounting . . . . . Above, below or vertical on the window
Type Approvals . . . . . DNV, ABS

TYPE C



TYPE D MKV



*Measurements are for illustrative purposes only

...showing the way

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