



***SCREEN WIPER SOLUTIONS***

# **Wiper Catalogue**

**2023**



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## Bus and Coach



Arm	Length	Drive Arm	Idle Arm	Bridge	Blade Clip
P85xxTJ	810   860	M10-16	M8-12	60 mm	20 mm



Arm	Length mm	Drive Arm	Idle Arm	Bridge	Blade Clip
P90xxTJ	710   760	M8 - 12	M8 - 12	60 mm	14 mm
P95xxTJ	710   760	M10 - 16	M10 - 16	60 mm	14 mm



Arm	Length	Drive Arm	Idle Arm	Bridge	Blade Clip
P175xxTJ	750   850   1000	M8-12	M8-12	60 mm	20 mm



Arm	Length	Drive Arm	Idle Arm	Bridge	Blade Clip
P153xxTJ	610   660   710	M8-12	M8-12	60 mm	14 mm
P162xxTJ	610   660   710	M8-12	M8-12	50 mm	14 mm

## Pantograph Arms



Arm	Length (mm)	Drive Arm	Idle Arm	Bridge Centres	Blade Clip
TC881-xx	750   800   850   900	M12-16 taper	M12-16 taper	60 mm	22 mm
TC881-700	710	M12-16 taper	M12-16 taper	60 mm	16 mm
TC885-70	700   Double Spring	M12-16 taper	M12-16 taper	60 mm	22 mm
TC999-xx	700   750   800   850   870   900   1000	M10-16 taper	M10-16 taper	60 mm	22 mm



Arm	Length (mm)	Drive Arm	Idle Arm	Bridge Centres	Blade Clip
TC777xxx	700   750   800   850	M8-12 taper	M8-12 taper	60 mm	22 mm



Arm	Length (mm)	Drive Arm	Idle Arm	Bridge Centres	Blade Clip
TC666xxx	500   550   610   650   700   750	M8 - 12 taper	M8 - 12 taper	60 mm	14 mm



Arm	Length (mm)	Drive Arm	Idle Arm	Bridge Centres	Blade Clip
ZD1230-P	400   450   500	M8-10 taper	M8-10 taper	50 mm	14 mm
ZD1530	400   450   500   550   600   650   700	M8-12 taper	M8-12 taper	60 mm	14 mm



Arm	Length (mm)	Drive Arm	Idle Arm	Bridge Centres	Blade Clip
301-7xxx0-R	355 - 710	14.5 - 17.55 mm knurled driver	6 mm		14 mm
301-3xxx0	355 - 710	14.5 - 17.55 mm knurled driver	6 mm	31.75 mm	14 mm

# Pantograph Arms



SWF

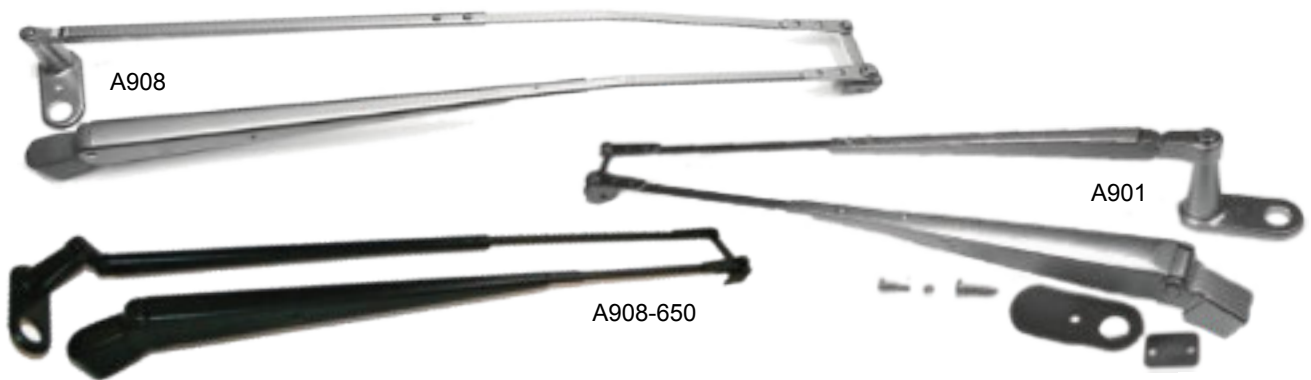


Arm	Length (mm)	Drive Arm	Idle Arm	Bridge Centres	Blade Clip
106.080	710	M10-16	M10-16	60 mm	26 mm
107.515	795	M10-16	M10-16	60 mm	26 mm
106.671	870	M10-16	M10-16	60 mm	26 mm
108.294 TV	970	M10-16	M10-16	60 mm	26 mm



Arm	Length (mm)	Drive Arm	Idle Arm	Bridge Centres	Blade Clip
103.980	700	M8-12	M8-12	60 mm	16 mm
104.580	750	M8-12	M8-12	60 mm	16 mm

Japanese/Denso



Arm	Length mm	Drive Arm	Idle Arm	Bridge Centres	Blade Clip
A901	450   560	10 mm straight	Pivot block	40 mm	6.5 mm
A907	700	M8-10 taper	Pivot block	50 mm	14 mm
A908	700   750	M8 -12 taper	Pivot block	50 mm	14 mm
A908-650	650	M8-12 taper	Pivot block	50 mm	14 mm
KS-625	625	M8-10 taper	Pivot block	50 mm	14 mm

## Pantograph Wiper Arms



order on indent

Arm - Marine	Length mm	Shaft Head	Idler Head	Bridge Centres	Blade Clip
P84-xxTJ	610 to 1520	M10-16	M10-16	60 mm	14 mm   20mm



Arm - Marine	Length mm	Shaft Head	Idler Head	Bridge Centres	Blade Clip
P615-xxTJ	610 up to 990	M8-12	M8-12	50 mm	14 mm
P665-xxTJ   P635   P655	560 up to 990	M8-12	M8-12	60 mm	14 mm
P680-xxTJ	735 up to 990	M10-16	M10-16	60 mm	20 mm



Arm	Length (mm)	Drive Shaft	Idle Shaft	Bridge Centres	Blade Clip
TC555-35-45	350 - 450	13.6 mm	13.6 mm	50 mm	14 mm
TC555-45-55	450 - 550	13.6 mm	13.6 mm	50 mm	14 mm
TC555-50-60	500 - 600	13.6 mm	13.6 mm	50 mm	14 mm



Arm	Length (mm)	Drive Shaft	Idle Shaft	Saddle	Bridge
TC666-xx	500   550   610   650   700   750	M8-12 taper	M8-12 taper	14 mm	60 mm

## Autotex Wiper Arms



Arm	Length mm   adj	Shaft/s	Saddle	Blade Bolt	Blade Clip
20071xx R	200 - 610	13.6 mm	Adj Tip		9 x 3 hook
200715   200716	350 - 450   450 - 600	13.6 mm	50 mm	8 mm	20   26 mm

# Tru Vision Wiper Arms



## Marine

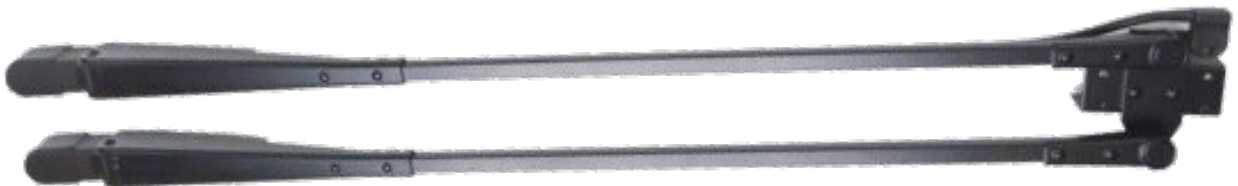
Tru Vision marine blades are manufactured in stainless steel and are available in polished stainless steel or black finish. Add 'B' to the part number to order black finish.



Radial Arm	Length mm	Shaft Head	Idler Head	Bridge	Blade Clip   Hook
WEM1230-Pxx	400   500	M8-10	8 mm	50 mm	14 mm
WEM1230-Rxx	400   450   500	M8-10			9 mm



Arm	Length mm	Shaft Head	Idler Head	Bridge Centres	Blade Clip
WEM1530-P-xx	450 up to 700	M8 - 12 DIN	M8 - 12 DIN	60 mm	14 mm



Arm	Length mm	Shaft Head	Idler Head	Bridge Centres	Blade Clip
WEM2930-800-1000 S/STEEL	800 up to 1 000	M8 - 12 DIN	M8 - 12 DIN	60 mm	26 mm
WEM2930B-80-100 S/STEEL BLACK	800 up to 1 000	M8 - 12 DIN	M8 - 12 DIN	60 mm	26 mm



Radial Arm	Pantograph	Length mm	Shaft Head	Bridge	Blade Clip   Hook
TC444-35-45ss	TC555-35-45ss	350 up to 450	13.6 mm	50 mm	16 mm   13.6 mm
TC444-45-55ss	TC555-45-55ss	450 up to 550	13.6 mm	50 mm	16 mm   13.6 mm
TC444-50-60ss	TC555-50-60ss	500 up to 600	13.6 mm	50 mm	16 mm   13.6 mm

All arms available black powdered coated stainless steel or polished stainless steel

## Adjustable Radial Arms



Arm	Length (mm)	Shaft	Bolt	Blade Clip
TC034	up to 510 mm	13.6 mm drum shaft	4 mm	6 mm



Arm	Length (mm)	Shaft	Bolt	Blade Clip
TC380	up to 510 mm	14.5 - 17.5 mm knurled driver	6 mm	6 mm



Arm	Length (mm)	Shaft	Bolt	Blade Clip
TC076	up to 510 mm	M6 - 8 taper	4 mm	6 mm
TC078	up to 510 mm	M8-10 taper	4 mm	6 mm



Arm	Length (mm)	Shaft	Blade Hook
TC444-34-45	340 - 450	13.6 mm	9 mm
TC444-45-55	450 - 550	13.6 mm	9 mm
TC444-50-60	500 - 600	13.6 mm	9 mm

## Vetus Wiper Arms



RWA  
DINP



SSA  
DINS

Part #	Part #	Length (mm)	Straight	DIN	Bayonet	Bridge
RWAS   SSAS	DINPS   DINSL	280 - 366	13.6 mm	M8 - 10	5 mm	
RWAL   SSAL	DINPL   DINSL	395 - 481	13.6 mm	M8 - 10	5 mm	
RWAX   SSAX	DINPX   DIN SX	473 - 559	13.6 mm	M8 - 10	5 mm	
RWAD   SSAD	DINPD   DINSD	308 - 393	13.6 mm	M8 - 10	7 mm	45 mm
RWADX   SSADX	DINPDX   DINSDX	386 - 471	13.6 mm	M8 - 10	7 mm	45 mm



## Commercial Arms



Optare Excel

Arm	Length (mm)	Shaft	Blade bolt	Saddle
803184 LH	740 mm	M10-16 taper	6 mm	20 mm
803183 RH	740 mm	M10-16 taper	6 mm	20 mm



Designline Man A80

Arm	Length (mm)	Shaft	Blade bolt	Saddle
FPDYG-01   LH	675	M12-16 taper	8 mm	20   26 mm
FPDYG-02   RH	675	M12-16 taper	8 mm	20   26 mm



BCI

Arm	Length (mm)	Shaft	Blade bolt	Saddle
FPYTR-01   LH	850	M12-16 taper	8 mm	20   26 mm
FPDYTR-02   RH	900	M12-16 taper	8 mm	20   26 mm



Kiwi


Arm	Length (mm)	Shaft	Blade bolt	Saddle
TCCUS-OS (RH)	750	M12-16 taper	8 mm	20   26 mm
TCCUS-NS (LH)	750	M12-16 taper	8 mm	20   26 mm

## Heavy Duty Radial Arms



Arm	Length (mm)	Shaft	Blade	Blade Clip
104.711   LH	700	M10-16 taper	Bolt 6 mm	16 mm
104.710   RH	700	M10-16 taper	Bolt 6 mm	16 mm




Arm	Length mm	Shaft		Blade Bolt	Blade Clip
106.294 LH	675	M10-16 taper	27°	8 mm	25 mm
106.293 RH	675	M10-16 taper	15°	8 mm	25 mm



Arm	Length (mm)	Shaft	Blade	Blade Clip
TVEX751-OS	750 mm	M12-16 taper	Bolt 6 mm	22 mm
TVEX750-NS	750 mm	M12-16 taper	Bolt 6 mm	22 mm



Arm	Length mm	Shaft		Blade Bolt	Blade Clip
120.6701.GA.D4 - OS	750	M10 - 16	40°	8 mm	20   26 mm
120.6702.GA.I4 - NS	750	M10 - 16	23°	8 mm	20   26 mm



Arm	Length (mm)	Shaft	Blade	Blade Clip
106.917	734 mm	M12-16 taper	Bolt 6 mm	26 mm
106.918	746 mm	M12-16 taper	Bolt 6 mm	26 mm

## Curved Screen & Flat Wiper Blades

Bosch stainless steel curved screen wiperblades and flat blades are built to withstand the demands of marine usage and are available in a range of sizes up to 1300 mm.

Note: when ordering, use as suffice Part # with the length required in inches. eg: B140 - 39 or FB -18



80012800  
Blade Block



Part #	Lenth mm	Bolt	Saddle
B140 - 14   16   18   20   22	340   400   450   500   550	4.8 mm	14 mm



Part #	Lenth mm	Bolt	Saddle
B160 - 24   26   28	600   650   700	4.8 mm   6 mm	14 mm



Part #	Lenth mm	Bolt	Saddle
B160 - 32   38   39	800   900   1000	6 mm   8 mm	26 mm
B160 - 48   50	1200   1300	6 mm   8 mm	26 mm



Part #	Lenth mm	Saddle
FB 10 - FB32	450   500   550   650   700	14 mm
FB WSL xxx	355   400   460   510   560   610	6 mm



Part #	Length mm	Saddle	Part #	Length mm	Saddle
21-409	400	10 mm	21-412	350	10 mm
			21-413	450	10 mm

## Curved Screen Wiper Blades | Marine



S/S Finish

Blade   Marine SS	Length (mm)	Saddle
WEM400	400 mm	14 mm   Hook
WEM450	450 mm	14 mm   Hook
WEM500	500 mm	14 mm   Hook
WEM550	550 mm	14 mm   Hook
WEM600	600 mm	14 mm   Hook
WEM700	700 mm	14 mm   Hook



S/S or Black Finish

Blade   Marine SS	Length (mm)	Saddle
WEM700   B	700	14 mm   16 mm
WEM800   B	800	14 mm   16 mm
WEM900   B	900	22 mm   26 mm
WEM1000   B	1000	22 mm   26 mm



Blade	Length (mm)	Saddle
WEM700A	700 mm	16 mm Hook 9x4

## Standard Wiper Blades



Standard Metal Blade	Length mm	Connection
SWBxx	250   300   350   400   450   500   550   600   700	Universal Adaptors



Blade	Length mm	Saddle	Blade	Length mm	Saddle
TCFS36   14"	360 mm	6 mm	TCFS51   20"	510 mm	6 mm
TCFS41   16"	410 mm	6 mm	TCFS56   22"	560 mm	6 mm
TCFS46   18"	460 mm	6 mm	TCFS61   24"	610 mm	6 mm

# Various Blades



## Heavy Duty Wiper Blades



Kenworth Blade	Length	Saddle
TVCS-xx	15"   16"   18"	6. mm



Underhook Blade	Length mm	Connection
TVCH900H	900 mm (36")	Under hook
TVCH1000H	1000 mm (40")	Under hook



Blade	Length mm	Saddle
TVCH700	700 mm (28")	22 mm   26 mm
TVCH800	800 mm (32")	22 mm   26 mm
TVCH900	900 mm (36")	22 mm   26 mm
TVCH1000	1000 mm (40")	22 mm   26 mm



Blade	Length (mm)	Saddle
TC600-24	600 mm	14 mm   16 mm
TC650-26	650 mm	14 mm   16 mm
TC700-28	700 mm	14 mm   16 mm
TC800-32	800 mm	22 mm   26 mm
TC900-36	900 mm	22 mm   26 mm
TC1000-39	1000 mm	22 mm   26 mm
TC602-50   20"	500 mm	14 mm
TC602-55   22"	550 mm	14 mm
T602-60   24"	600 mm	14 mm
TC602-65   26"	650 mm	14 mm
TC602-70   28"	700 mm	14 mm

## Universal Wiper Blades



Blade	Length mm	Saddle
TCCS36-14	360 mm	6 mm   14 mm
TCCS41-16	410 mm	6 mm   14 mm
TCCS46-18	460 mm	6 mm   14 mm
TCCS51-20	510 mm	6 mm   14 mm



Blade	Length (mm)	Connection
TC600A   24"	600 mm	9 & 12 hook
TC650A   26"	650 mm	9 & 12 hook
TC700A   28"	700 mm	9 & 12 hook



Blade	Length (mm)	Saddle
100SW3959	600 mm	14 mm
100SW3893	700 mm	14 mm



Blade	Length mm	Bolt mm	Saddle
106.277	1000	8 mm	20 mm   26 mm



16mm Blade block    9mm x 4mm & 12mm x 4mm Hook adaptors



Blade	Length mm	Saddle   Bolt
132.603	600	16 mm   6 mm
132.701	700	16 mm   6 mm



Blade	Length mm	Saddle
132.801	800	16 mm   26 mm

# Blades - Flat



## Boneless | Silicone Wiper Blade




Blade	Length	Blade Fit
SWT880	14" - 28"	Hook or adaptor

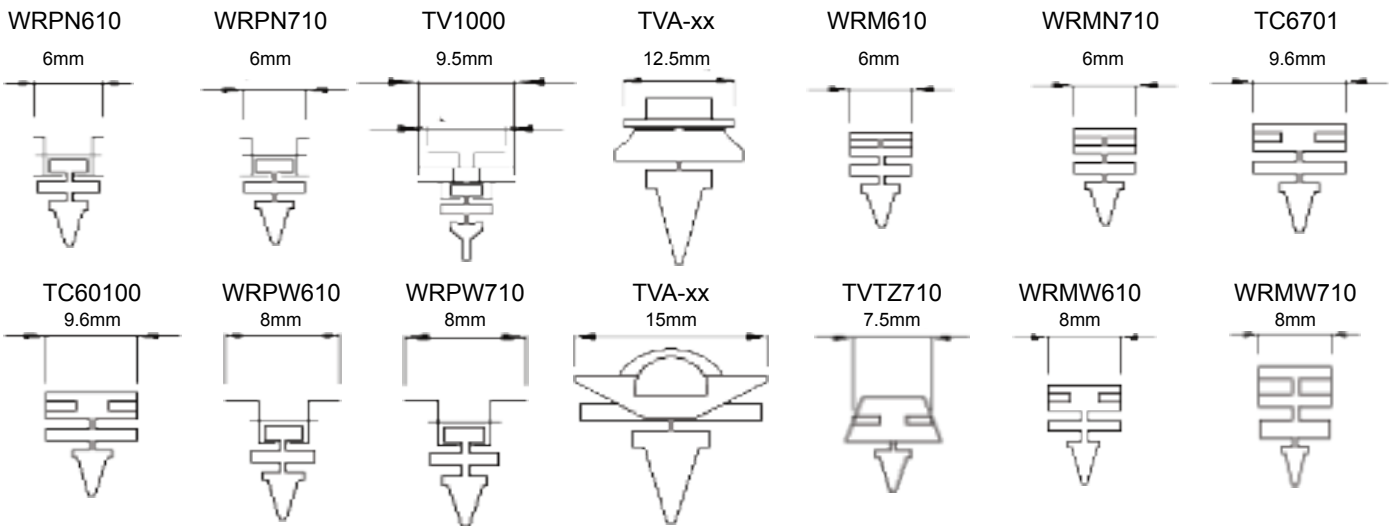
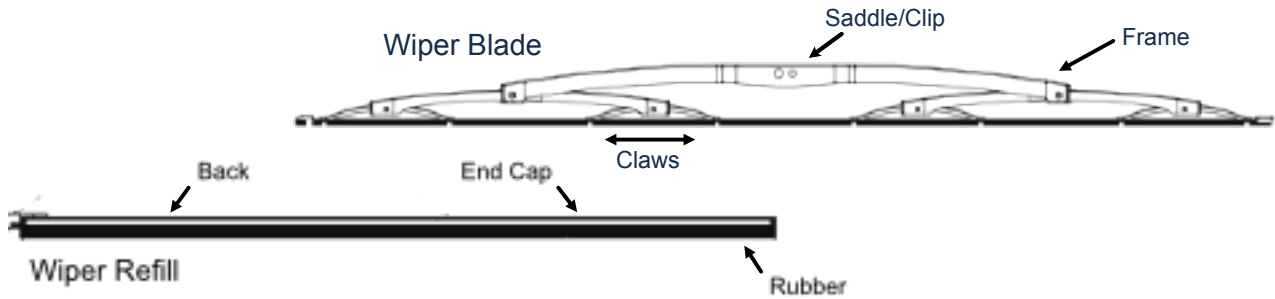


Blade	Length (mm)	Connection
TVF300   12"	300 mm	Universal
TVF350   14"	350 mm	Universal
TVF400   16"	400 mm	Universal
TVF500   20"	500 mm	Universal
TVF550   22"	550 mm	Universal
TVF600   24"	600 mm	Universal
TVF700   28"	700 mm	Universal

## Wiper Blade Adaptors

Adaptor Type		
Standard Bayonet 7 x 2.6 mm   9 x 3 mm	Hook 9 x 3 mm   12 x 4 mm	Slide   K Adaptor 3 x 8 mm/14.5 mm
		
Adaptor Type		
Block 4.8 mm bolt   14 mm clip	Block 6 mm bolt   16 mm clip	Saddle Adaptor 16 mm   26 mm
		

## Wiper Refill Profiles



Refill	Blade Length (mm)	Suits Blades	Pack	Width (mm)	Back
TVA-xx	345 mm - 450 mm	TVCSxx	each	15 mm	Metal rail
TV1000   TV1000-10	1000 mm	Universal	pair   box 10	8 mm   9.5 mm	Plastic
WRMN610	600 mm	TC600A	pair   box 20	6 mm   8 mm	Metal (narrow)
EVMN710	650 mm   700 mm	TC650A   TC700A	pair   box 20	8 mm	Metal (narrow)
WRPN610	600 mm	TC600A	pair   box 20	6 - 8 mm	Plastic (Narrow)
WRPN710	650 mm   700 mm	TC650A   TC700A	pair   box 20	6 - 8 mm	Plastic (Narrow)
WRPW710	700 mm	WEM700	pair   box 10	8 mm	Plastic (Wide)
WRMW610	600 mm	TC600A	pair   box 20	6 mm   8 mm	Metal (Wide)
WRMW710	650 mm   700 mm	TC650A   TC700A	pair   box 20	6 mm   8 mm	Metal (Wide)
TC60100	700 - 1000 mm	TCxxx	pair	9.5 mm	S/S twin rail
80262202	1000 mm	FBxx	pair	9.5 mm	Rubber
80262200	800 mm	FBxx	pair	8 mm	Rubber
TVSWF115.756	800 mm	SWF	pair	7.5 mm	Rubber
TC-16   TC-18   TC-20	400 mm - 510 mm	TCCSxx	pair	12.5 mm	twin rail
TVSWF800	800 mm	132.900   TC800	pair	9.6 mm	twin rail
TCF6071	710 mm	TC700A   B160-24	pair	9.6mm	twin rail
TVTZ710-10	710 mm	104.579   TC700	box 10	7.5 mm	twin rail






# Assorted Motors



Part #	Voltage	Torque	Shaft	Mount	Speed	IER	Bosch
101117/2	12	20Nm	M6-8	3 x M6	1 + park	√	
101118/2	24	20Nm	M6-8	3 x M6	1 + park	√	
65008800	12	30Nm	9.3 mm	3 X M6	2 + park	√	
101208/1	12	30Nm	M8-10	3 X M6	2 + park	√	
65008900	24	30Nm	M8-10	3 X M6	2 + park	√	
65008500	12	50Nm	M8-10	3 X M6	2 + park	√	
65008600	24	50Nm	9.3 mm	3 X M6	2 + park	√	
100865/2	24	50Nm	9.3 mm	3 X M6	2 + park	√	
100712/2	24	80Nm	13.26 mm	3 x M8	2 + park	√	
100726/2	24	110Nm	15.8 mm	3 x M10	2 + park	√	
Part #	Voltage	Torque	Shaft	Mount	Speed	IER	SWF
403.873	24	50Nm	9.3 mm	3 x M6	2 + park		
403.872	12	50Nm	9.3 mm	3 x M6	2 + park		
403.195	24	65Nm	13.26 mm	3 x M8	2 + park		
Part #	Voltage	Torque	Shaft	Mount	Speed	IER	Feipeng
ZD2733A	24	125W	13.26 mm	3 x M8	2 + park		
Part #	Voltage	Sweeps/min	Shaft	Shaft length	Sweep°	IER	Autotex
4A.1110.CE	12   24	40 - 60	½"	1.5" - 3.5"	40° - 110°	√	

## Assorted Motors

TRU VISION	Marine Motor PN #	Voltage	Torque	Shaft din	Shaft (mm)	Sweep	Speed
	WEM1530B-TM-60-60	12	30Nm	M8-12	60	60°	2 + park
	WEM1530B-TM-60-75	12	30Nm	M8-12	75	75°	2 + park
	WEM1530B-TM-80-50	12	30Nm	M8-12	80	50°	2 + park
	WEM2530B-TM-80-72	12	30Nm	M8-12	80	72°	2 + park
	WEM1930-12V-50-75	12	65Nm	M8-12	75	50°	2 + park
	WEM1930-12V-60-75	12	65Nm	M8-12	75	60°	2 + park
	WEM1930-12V-80-75	12	65Nm	M8-12	75	80°	2 + park
	WEM2530B-TM-60-60	24	30Nm	M8-12	60	60°	2 + park
	WEM2530B-TM-60-75	24	30Nm	M8-12	60	75°	2 + park
	WEM2530B-TM-60-90	24	30Nm	M8-12	60	90°	2 + park
	WEM2530B-TM-80-60	24	30Nm	M8-12	80	60°	2 + park
	WEM2530B-TM-80-75	24	30Nm	M8-12	80	75°	2 + park
	WEM2930-24V-80-75-LH	24	65Nm	M10-12	75	80°	2 + park
	WEM2930-24V-80-75-RH	24	65Nm	M10-12	75	80°	2 + park
	WEM2930-TM-24V-65-90	24	65Nm	M10-12	75	90°	2 + park
	WEM1230B   BA	12	9Nm	M8-10	48   50   68 8 mm slave	60°   90°	1 + switch
	WEM2230B   BA	24	9Nm	M8-10	48   50   68 8 mm slave	60°   90°	1 + switch
	TCM1233-xx	12	18Nm	13.2	51 - 76	45° - 110°	Coast to park
	TCM2233-xx	24	18Nm	13.2	51 - 76	45° - 110°	Coast to park



TRU VISION	Part #	Voltage	Torque	Shaft	Shaft (mm)	Mount	Speed
	ZD1230BA-12V-xx-xx	12	9Nm	M8-10	48   68 mm 8 mm slave	45° - 110°	2 + park
	ZD2230BA-24V-xx-xx	24	9Nm	M8-10	48   68 mm 8 mm slave	45° - 110°	2 + park
	TC180-24-13 (Coarse)	24	102Nm	13.26 mm		3 x M10	2 + park
	TC180-24-15.3 (Coarse)	24	102Nm	15.3 mm		3 x M10	2 + park
	TC180-24-15.3 (Fine)	24	102Nm	15.3 mm		3 x M10	2 + park
	TC180-24-16 (Fine)	24	102Nm	15.8 mm		3 x M10	2 + park
	TC150-12	12	85Nm	13.2		3 x M10	2 + park
	TC150-24	12	85Nm	13.2		3 x M10	2 + park


40 Ascot Road, Auckland Airport Oaks, 2022


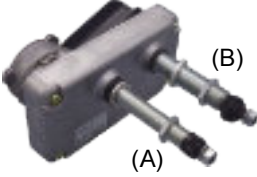

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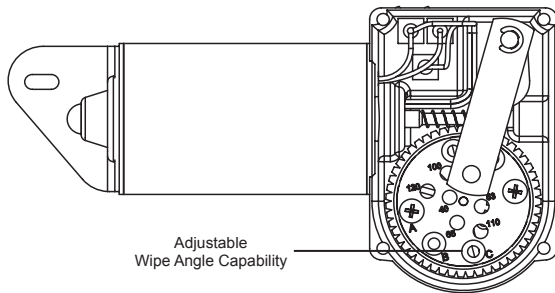
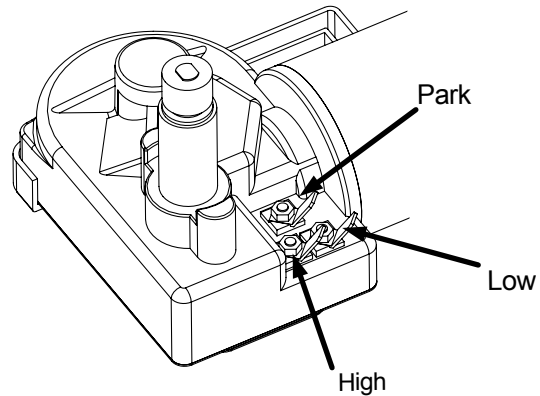
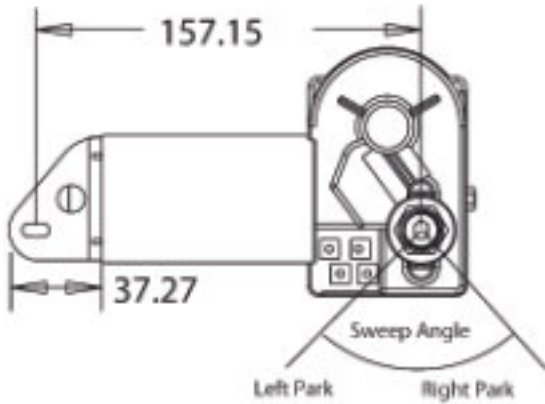
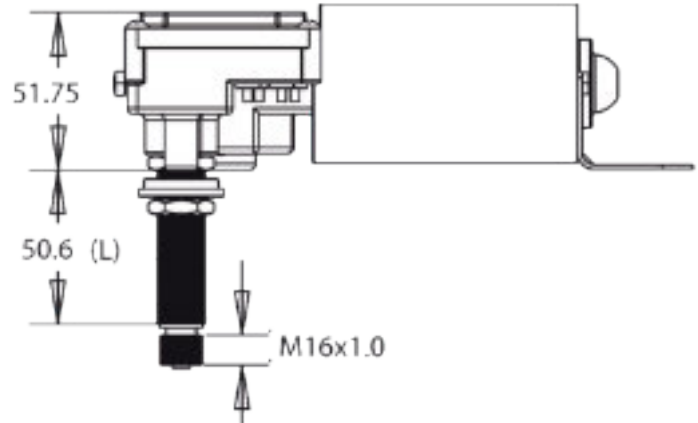
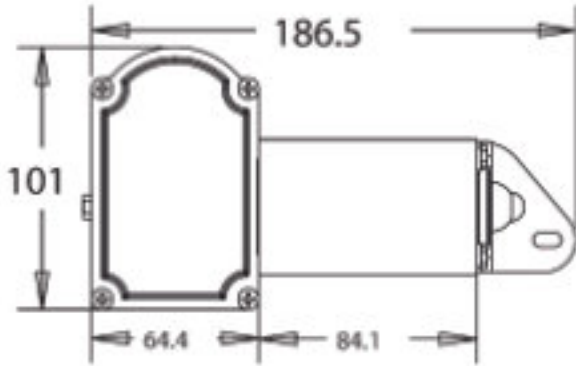
# Assorted Motors



Part #	Voltage	Torque	Shaft mm	Shaft $\varnothing$	Mount	Speed	Tru Vision
TC325   TC325T	24	65Nm	22   16	11.8 mm	3 x M6	2 + park	 Trico 7325
TC401821	24	80Nm	14	13.2 mm	3 x M8	2 + park	

	859100-6142	859100-6132	Asmo   Denso
Linking cable between motors	RH   5 Pins	LH   5 Pins	
Voltage	24	24	
Shaft	M8-12	M8-12	
Mount	70 mm crs	70 mm crs	

	Left Park	Right Park	SWF
	110 334   (107 855)	110 348   (107 854)	 403 745 12V 403 744   404110 24V
	110 366   (107 863)	110 350   (107 862)	
Voltage   Nm	12 v   26 Nm	24 v   26 Nm	
Shafts - Drive   Idle	M8-12   M8-10		
Mount	60 mm crs		
Sweep $^{\circ}$	75 $^{\circ}$		
Liner $\varnothing$ (A)	20 mm		
Spindle $\varnothing$ (A)	12 mm		
Liner $\varnothing$ (B)	16 mm		
Spindle $\varnothing$ (B)	10 mm		
Overall shaft length	108 mm		
Spindle crs - crs	60 mm		
Box width	190 mm		
Box height	95 mm		



### Adjustable Sweep angle

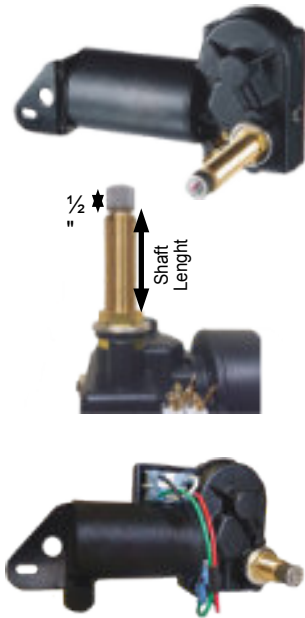
- The wipe angle can be adjusted by removing the gear box cover and moving the lever plate pin to the appropriate hole.
- Select left or right park by changing the orientation of the gear plate to either Pos 1 or Pos 2 as shown in the diagram.



Angle Park | Hole Position.

Angle   Park	Hole	Position
40/R	C	2
40/L	C	1
53/R	C	1
53/L	C	2
65/R	A	1
65/L	A	2
85/R	A	2
85/L	A	1
100/R	B	2
100/L	B	1
110/R	B	1
110/L	B	2

# Oscillating Wiper Motors 4R 12 v | 24 v



## Description

- Self contained oscillating marine quality wiper motor
- 12v | 24v
- Torque 15Nm
- Adjustable sweep - 40° | 53° | 65° | 85° | 100° | 110° - default 100°
- Available with single or two speed switch
- Left or right park position - default right park
- Corrosion resistant
- Available with single or two speed switch
- All options available with 2 position switch fitted
- Suitable for automotive, industrial, agricultural & marine applications.

Sweep°	wiper arm length in mm						wiper blade length in mm
	305	355	405	457	508	560	
40°	660	660	660	660	660	533	
53°	660	660	660	609	558	508	
65°	660	660	584	508	457	431	
85°	610	533	457	406	355	330	
100°	533	457	406	355	330	304	
110°	508	431	381	330	304	279	
120°	457	406	355	304	279	254	

## Switch Kit

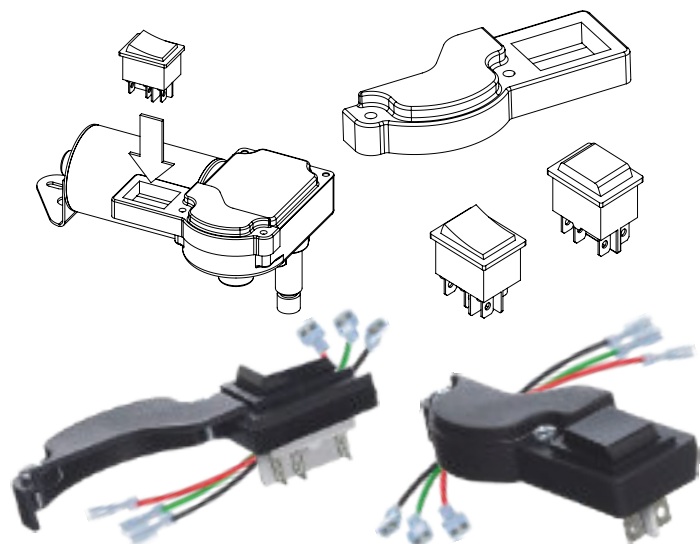
PN # 20257 | 20058

Motor must be grounded through the vehicle chassis.

12v motor requires 12 amp external fuse.

24v motor requires 6 amp external fuse.

2 Speed/Fast Slow.



# 230 Series Motor

**PN # 2302015 | 2302014**

35 Nm | Automotive and industrial

Left hand or right hand 230 series unitised assembly

12v or 24v DC

Motor drive M8-DIN10

Two speed with park and wash function with switch TC75228 available separately

6 pin

Dynamic park

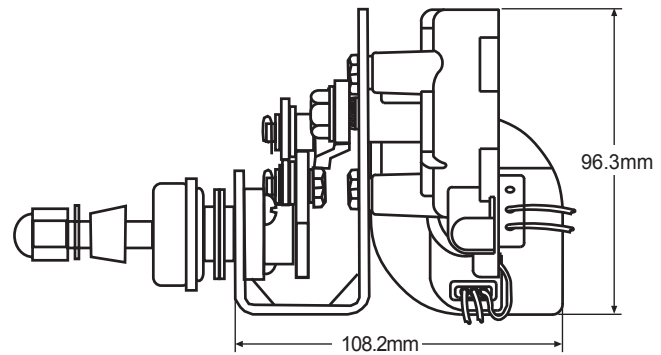
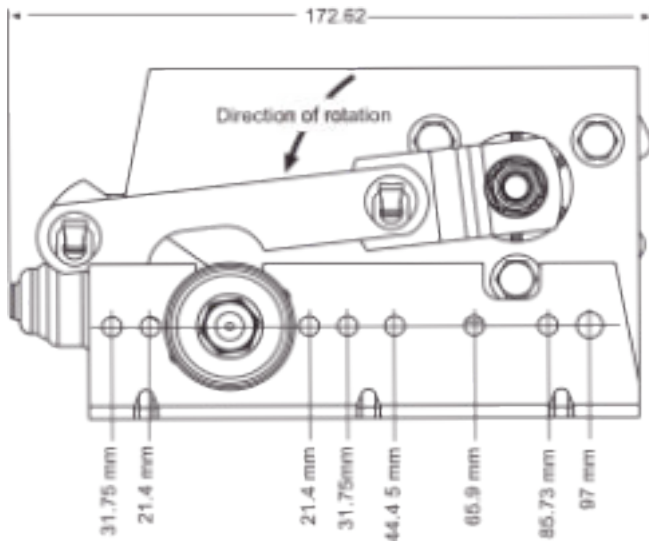
Compact size

Configurable for radial or pantograph arms up to 700 mm

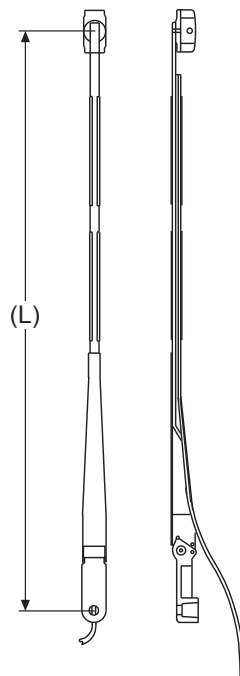
RFI suppression standard

Wiper angles 68° | 85° | 108° | Default 68°

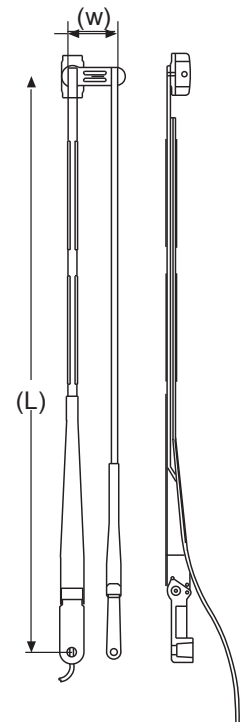
Arms & blades up to 700mm



Radial arms   TJ	
Part #	Length (mm)
301-7140	355
301-7150	380
301-7160	405
301-7170	430
301-7180	455
301-7190	485
301-7200	510
301-7210	535
301-7220	560
301-7230	585
301-7240	610
301-7240	635
301-7260	660
301-7270	685
301-7280	710



Pantograph arms		TJ
Part #	Length (mm)	Bridge (mm)
301-3140	355	31.75
301-3150	380	31.75
301-3160	405	31.75
301-3170	430	31.75
301-3180	455	31.75
301-3190	485	31.75
301-3200	510	31.75
301-3210	535	31.75
301-3220	560	31.75
301-3230	585	31.75
301-3240	610	31.75
301-3250	635	31.75
301-3260	660	31.75
301-3270	685	31.75
301-3280	710	31.75



# 230 Series Hardward Kit | Linkage



## Hardware Kit PN # 3061158

(Bracket and drive arm not included in kit.)

All hardware shown is available individually



Spring clips | 407-100

Washers | 414-1005



Link | 307-1033 86 mm entre to centre



Drive arm | 307-1051



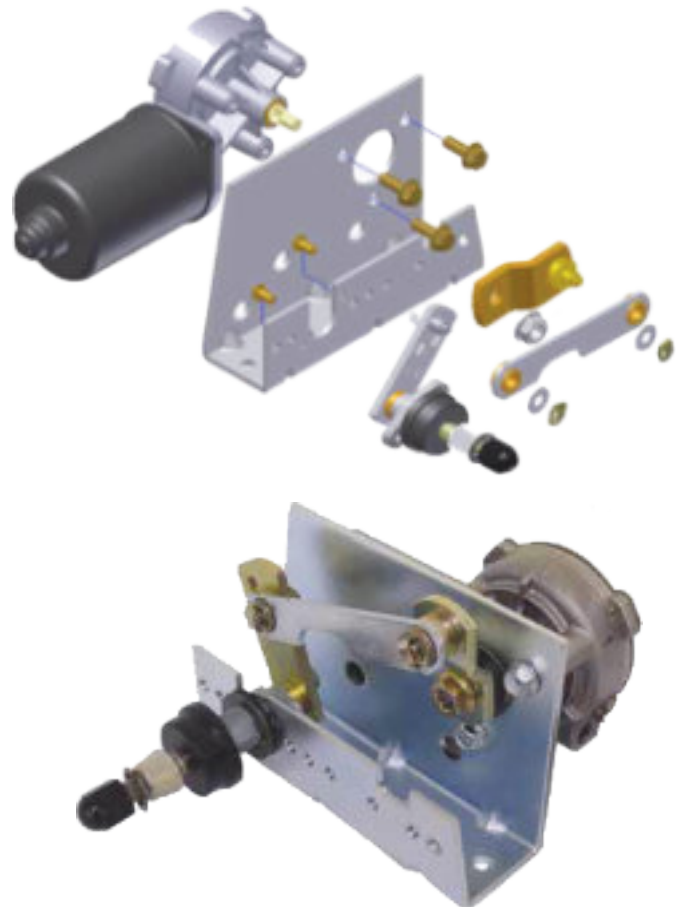
Motor mounting screws | 414-1131



Shaft screws | 407-1064



Motor shaft nut | 414-1132

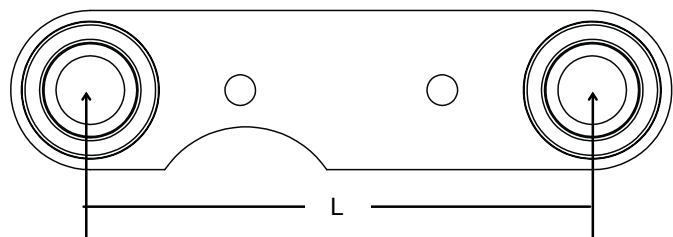
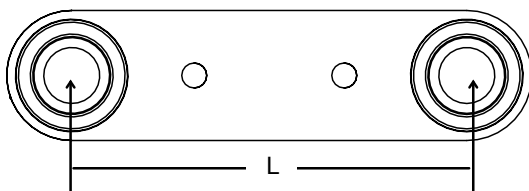


## Pin Type Links

- Standard for unitised and multiple pivot wiper systems
- Standard nylon bushings
- Bronze bushings for heavy duty applications
- All bushings 7.9mm inside diameter .

Part #	CRS to CRS length
307-1074	adj 300 - 400 mm
307-1075	adj 450 - 550 mm
307-1079	483 mm
307-1081	699 mm
307-1082	570 mm
307-1083	adj 550 - 650 mm
TC2010	243 mm

230 linkage rod



# 230 Series Motor Pivot Shaft | Drive Arms | Adaptor

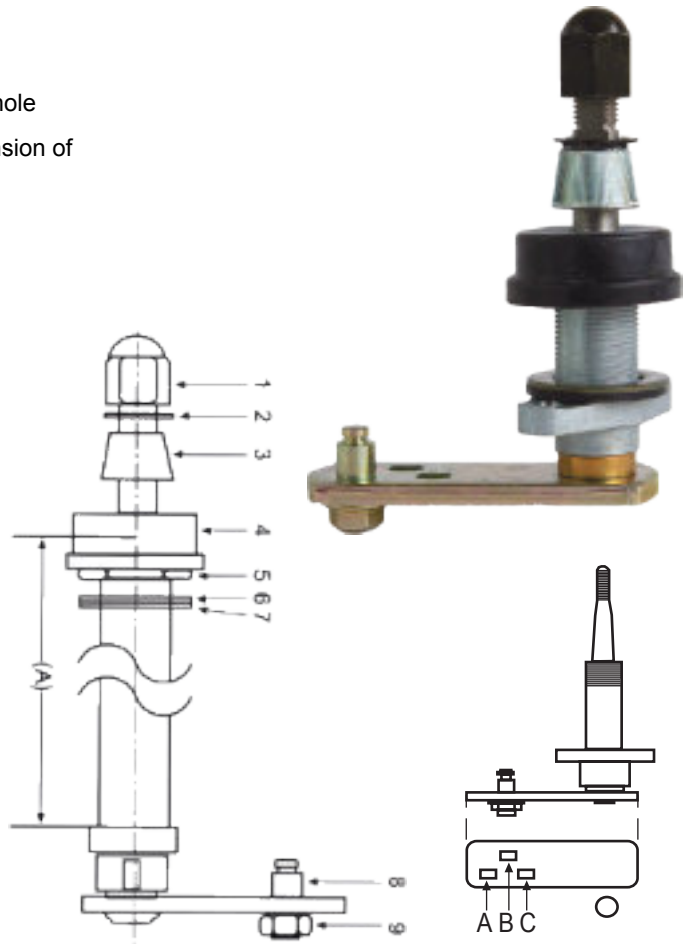
## Pin-Type Pivot Shafts

- 17.3mm shaft body diameter | fits into 19mm bulkhead hole
- Lengths determined by (A) measurement - length/dimension of shaft body.
- Three pin slots for different sweep angles (A,B,C)
- Stainless steel shaft and components for corrosive environments.

Complete Shaft Assemblies	
304-1201	25 mm
301-1202	32 mm
301-1203	51 mm
301-1206	76 mm

### To identify a shaft:

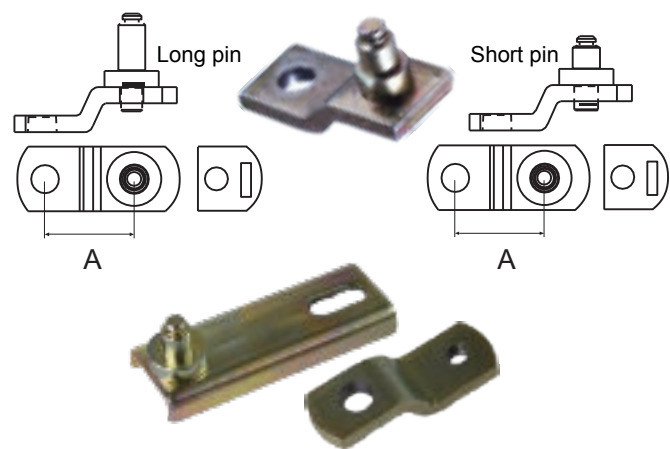
- Measure the pivot body from the base of the mounting flange to the end that protrudes to the wiper attachment (A). This part must be able to past through the bulkhead and allow mounting with #5 nut.
- Items #8 and #9 can be mounted as shown or inverted for different applications



## Pin Type Drive Arms

Available in a variety of sizes for several wipe angles. Short pin for single link systems, long pin for double link systems

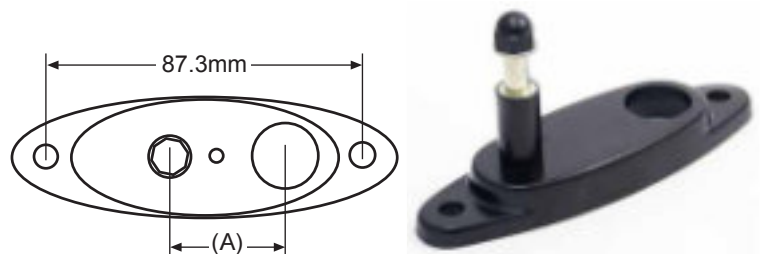
PN#	CRS (A)
308 1051	26.8 mm
308 1052	35.1 mm
308 1062	26.8 mm
308 1063	35.1 mm
308 1005	Adjustable



## 230 Series Pantograph Adaptors

- Allows the use of a pantograph wiper arm (double arm) on the 230 series unitised assembly

Pantograph adaptor part numbers:  
 #305-1002 (A) = 31.8mm  
 #305-1007 (A) = 44.5mm



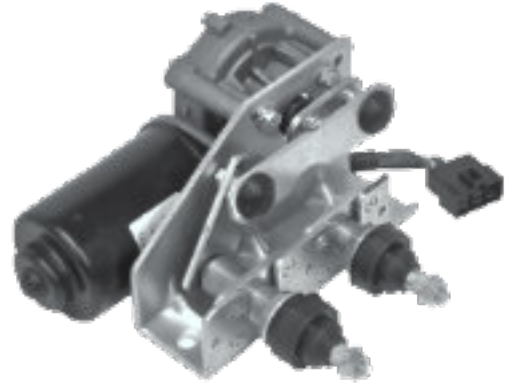


# TV5000 Series Wiper Motor



## Product Description:

- Automotive and industrial
- 35Nm breaking torque
- 6.5Nm working torque
- 12v or 24v DC
- Motor drive M8 DIN10
- Dynamic park
- Ball and socket link
- Single screen coverage
- Sweep angles – 65° 72° 80° 100° (72° default)
- Two speed with park and screen washer function with TC75228-03 switch
- Radial or pantograph arm application
- 60mm pivot centres – M8 DIN12
- 6 pin terminal block – 5 active \*



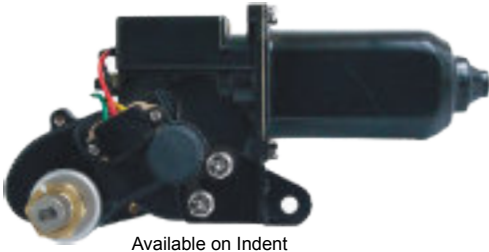
## Component Breakdown:

- TV5210 | bracket
- TV5220 | Drive arm & connector link
- Arms: ZD1530-P (pantograph) or ZD1230 | TC078 (radial)
- Blades: SWB | TCFS flat blades | TCCS curved blades

	TV5100				TV5100			
Rated Voltage	12v				24v			
Brake Torque	35Nm				35Nm			
Working Torque	6.5Nm				6.5Nm			
Pins	5				5			
Sweep	65°	72°	80°	100°	65°	72°	80°	100°
Mount	3 x M6				3 x M6			
Shaft	M8 - 10				M8 - 10			
No Load current	1.8A		2.5A		1.2A		1.8A	
No Load speed	40±10% rpm		60±10% rpm		40±10% rpm		60±10% rpm	
Working current	5A		6A		2.7A		3.0A	
Noise	50dB(A)		55dB(A)		50dB(A)		55dB(A)	

	Drive Spindle					Idler Spindle		
	Shaft	Ball	L1	L2		Shaft	L1	CRS
TV5301	12 DIN	16 mm	25 mm	12 mm	TV5401	12 DIN	25 mm	35
TV5302	12 DIN	16 mm	32 mm	20 mm	TV5402	12 DIN	32 mm	42
TV5303	12 DIN	16 mm	50 mm	35 mm	TV5403	12 DIN	50 mm	47
TV5304	12 DIN	16 mm	75 mm	60 mm	TV5404	12 DIN	75 mm	53

## Small Marine Motors



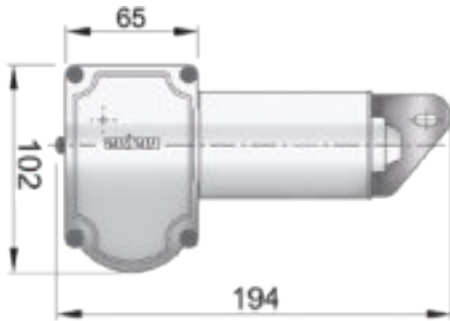
Available on Indent

### 212 Series Oscilating Wiper Motor | 12v | 24v

#### Specifications

- Configurable for clockwise or counterclockwise park by changing their terminal location in the mating wiring harness
- Brass pivot body, stainless steel shaft
- Marine grade specifications

Stall Torque	Shaft Length mm	Shaft	Sweep°
12Nm	25 mm   50 mm   75 mm	12 mm Straight	65°   85°   100°   110°



### Vetus RW Series Wiper Motor

#### Specifications

- Output 30 Watt | 12v or 24v
- Suitable for panel thickness from 3 to 13 mm (25 mm, short shaft) or 3 to 38 mm (51 mm, long shaft)
- Cover available - reduces the panel thickness by 3mm, complete
- Type RW with straight knurled stainless steel shaft end of Ø 13,5 mm, 72 teeth
- Type DIN with tapered and knurled stainless steel shaft according to DIN 72783

PN#	Shaft	Voltage	Shaft Length
RW01A	12V	51 mm	STRAIGHT
RW02A	24V	51 mm	STRAIGHT
RW08A	12V	25 mm	STRAIGHT
RW09A	24V	25 mm	STRAIGHT
* DIN1250	12V	51 mm	TAPERED
* DIN2450	24V	51 mm	TAPERED
* DIN1225	12V	25 mm	TAPERED
* DIN2425	24V	25 mm	TAPERED

\* Available on Indent

### Vetus Marine Wiper Arms



RWA  
DINP



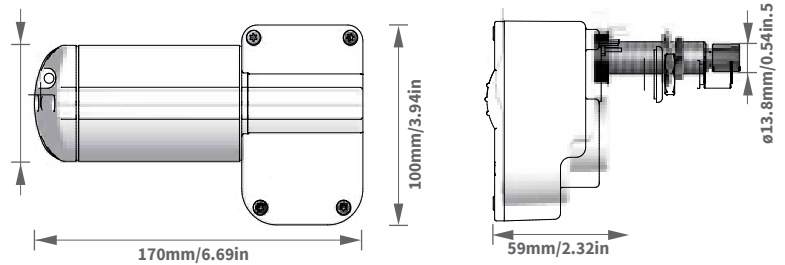
SSA  
DINS

Part #	Part #	Length (mm)	Straight	DIN	Bayonet	Bridge
RWAS   SSAS	DINPS   DINSL	280 - 366	13.6 mm	M8 - 10	5 mm	
RWAL   SSAL	DINPL   DINSL	395 - 481	13.6 mm	M8 - 10	5 mm	
RWAX   SSAX	DINPX   DIN SX	473 - 559	13.6 mm	M8 - 10	5 mm	
RWAD   SSAD	DINPD   DINSD	308 - 393	13.6 mm	M8 - 10	7 mm	45 mm
RWADX   SSADX	DINPDX   DINSDX	386 - 471	13.6 mm	M8 - 10	7 mm	45 mm

## Roca W12 Series Wiper Motor | 12v | 24v | PN 533011 | PN 533012

### Specifications

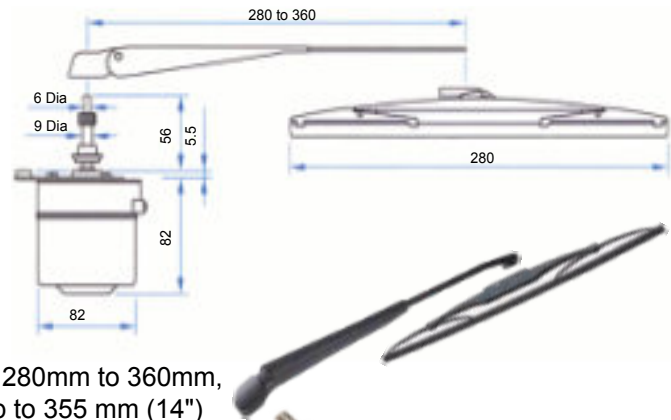
- Self-parking (right or left)
- Stainless steel wiper shaft
- Intergrated heat sink fins for effective heat dissipation
- IP65 rated
- Insulated ground for metal, fiberglass and wooden boats
- Arm/blade combination up to 610 mm x 560 mm



## Roca | PN 521011 | PN 521012

### Marine Motor, Arm, and Blade Kit

- Motor with white powder coated aluminium cover, Stainless Steel shaft, and mounting plate.
- 12v | 24v
- Adjustable sweep angle 90 or 110 degrees.
- Adjustable left or right self parking.
- Single speed motor
- 3 terminal, no switch. Fuse size 3A
- Bulkhead thickness 25 mm (1") | Shaft length 64 mm
- Black coated stainless steel arm easily adjustable from 280mm to 360mm, polymer wiper blade 280mm. Arm/blade combination up to 355 mm (14")



## Wexco | PN SQ112 | SQ124

### Marine Motor, Arm, and Blade Kit

- Light duty | compact size | Stainless Steel
- CE-certified
- 12v | 24v
- Sweep: 80° or 110°
- Torque 8Nm | Speed 54 sweeps per second
- Fuse size: 3A
- Shaft length: 25 mm
- Coast to park - adjustable left or right
- SS radial arm adjustable 280 mm - 355 mm
- SS 280 mm blade



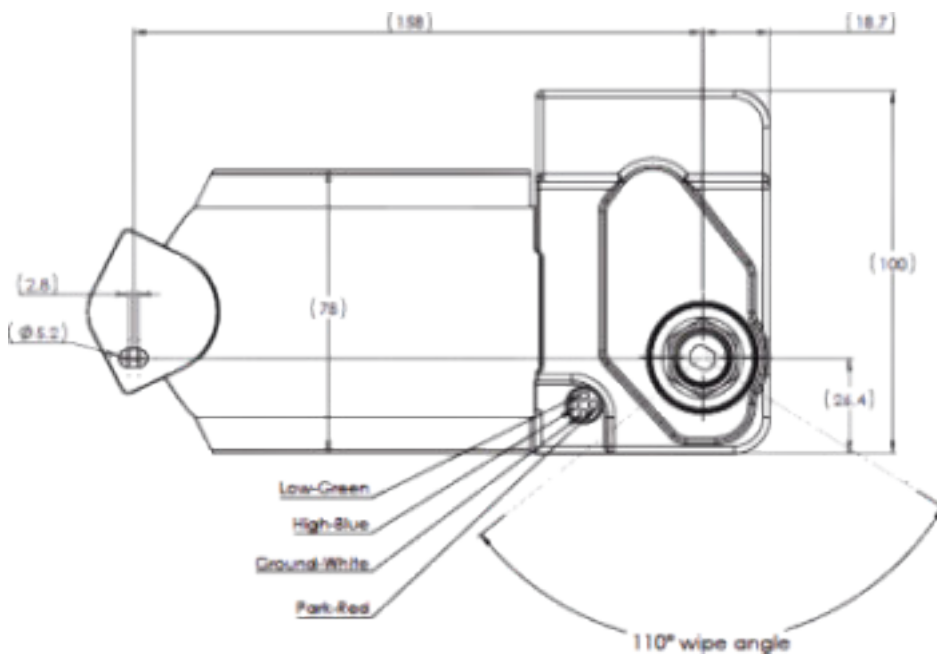




### 4A Sealed Motor Oscillating Wiper Motor

- Sealed with powder coated aluminum cover.
- IP66 standard | CE certified.
- Left hand or right hand park adjustable.
- Sweeps from 40°. Default 110°.
- Radial or Pantograph arms - requires pantograph adaptor

Voltage	Torque	Shaft	Shaft (mm)	Sweep°	Max Arm / Blade	Speed	IER
12   24	18Nm	½" drum	1.5"   2.5"   3.5"	40° - 110°	up to 600 mm	2 + park	√
12   24	18Nm	M8-12	1.5"   2.5"   3.5"	40° - 110°	up to 600 mm	2 + park	√

Sweep°	wiper arm length in mm						wiper blade length in mm
	305	355	405	457	508	560	
40°	660	660	660	660	660	533	
50°	660	660	660	609	558	508	
60°	610	610	533	457	431	406	
70°	635	609	533	457	406	381	
80°	584	508	431	381	330	304	
90°	558	482	431	381	330	304	
100°	533	457	406	355	330	304	
110°	508	431	381	330	304	279	



		W12	W38
 <p>W12</p>	Voltage	12v   24v	12v   24v
	Torque	12Nm	38Nm
	Shaft length	42   64   90 mm	38   64 mm
 <p>W38</p>	Sweep	45° -110°	45° -110°
	IER	√	√
	Speed	2 speed   self parking	2 speed   self parking - left or right



Part #   W12 Motor	Length mm	Drive Shaft	Idle Shaft	Bridge	Connection
Arm   538318	324 - 460	∅13.8 mm	∅13.8 z=72	50 mm	J Hook
Arm   538324	454 - 591	∅13.8 mm	∅13.8 z=72	50 mm	J Hook
Arm Radial   538617	319 - 458	∅13.8 z=72			J Hook
Arm Radial   538624	240 - 305	∅13.8 z=72			J Hook

Part #   W12 Motor	Length mm	Connection	Finish
Blade   5205***	280   355   405	J Hook + connectors	Zinc Plated Steel   Black
Blade   520***	508   430   560	J Hook + connectors	Zinc Plated Steel   Black



Part #   W38 Motor	Length mm	Drive Shaft	Idle Shaft	Bridge	Blade Clip
Arm   538330	470 - 750	13.8	∅13.8 z=72	60 mm	16 mm
Arm   538430	470 - 750	13.8	13.8	60 mm	16 mm
Arm   538335	620 - 900	13.8	13.8	60 mm	16 mm

Part #   W38 Motor	Length mm	Saddle	Finish
5208***	610   710   760	Bolt	Stainless   Black
520***	838   890   965	Bolt	Stainless   Black

## Pantograph

½" Drum



Double Flat Shaft  
Tapered Knurled



Arm	Length mm	Driver Shaft	Idler Head	Bridge mm	Blade Clip
761-2875	710	16 mm	6 mm	31.75   44.45	Hook or Bolt
761-2900	740	16 mm	6 mm	31.75   44.45	Hook or Bolt
761-3101	790	16 mm	6 mm	31.75   44.45	Hook or Bolt



HDP-1	Length mm	Driver Shaft	Idler Head	Bridge mm	Blade Clip
	560 up to 910	16 mm	16 mm	60 mm	13.7 mm

- EFEX Thermoplastic-coated spring for superior corrosion resistance
- Compression spring tension is custom calibrated for each application
- UV stabilised composites
- Internally mounted washer hose is hidden from view, reducing snagging
- Intergrated spray nozzle
- Stainless Steel, galvanised with black powder coat.
- Flexible for flat or curved screens



## Pantograph Plate






	305-1002	305-1007	65201700	60044401	60847202
Shaft	M6	M6	M8	7/16-24NS	12DIN
Liner				25 mm	25 mm
CRS	31.8 mm	44.5 mm	50 mm	50 mm	50 mm


# Control Switches




Three Position Switch	Speed	Panel Depth	Switch Current		
HDMSW2- rocker	2 + park	7 mm (max)	20 amps (max)		
HDMSW - rotary	2 + speed	6 mm (max)	20 amps (max)		
Available as rotary or rocker type switch   single motor					

TC75228-03		TC75221-09		Heavy Duty Switches		
Voltage	12v   24v					
Park	2 speed + park   Dynamic	2 speed + park   Non Dynamic				
Case Dims	ø35 mm   10 mm stem		ø41 mm   11mm stem			
Wash	Push to wash					
Terminals	6		5			
				TC75228-03	TC75221-09	


Multi Speed Control Switch & Plate   Heavy Duty				
Voltage	12   24 DC	Negative ground only		
4 Positions	4   Off / Park   Intermittent   Low   High			
Wash/wiper program	Push knob - one to three wipes after push			
Dimensions	56 - 35 mm square	46.04 mm long		
Mounting	Stem: 11.11 mm	28 thread   11.43 mm long		

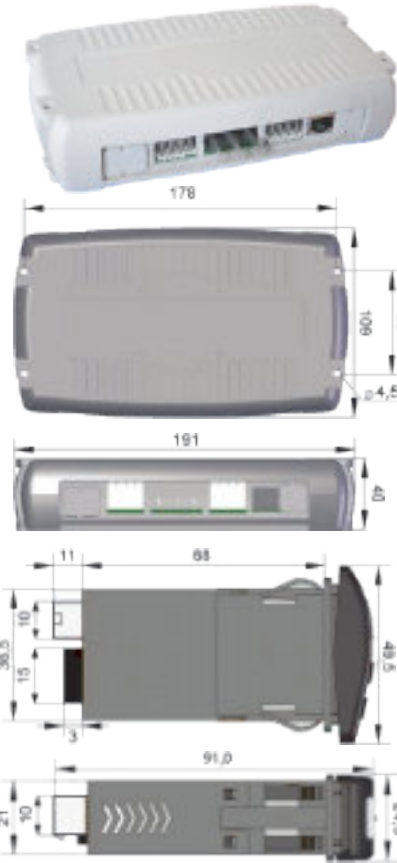
Coast to Park or Dynamic Park   with Dimmer				
75600-04	12 V			
75602-04	24 V			
10166600	24 V	Heavy duty suit 50 & 80Nm		
90087010	24 V	Heavy duty with facia plate		
10095400		Facia Plate		
		10095400		

CT41		CT42		
Voltage	10v to 30v DC			
Internal fuses	4 amps PTC for each motor			
Stand-by current	Less than 20mA			
Protection	Polarity inversion			
Motors - output currents	Single or double speed 4 amps maximum	Single or double speed - each motor 4 amps maximum		
Functions	3 intermittent settings: 2 continuous speeds: slow & high			
Wash/wiper program	Wash/ wiper program			
Connections	10 poles: 2 male 6.3 mm fast-on			
Park	Coast to Park or Dynamic Park   with dimmer			

Control Box & Switch: 532043   532202	
Voltage	12   24
Speed	Low   High   Intermittent
Controls	Two wipers   single or synchronised
Wash	Solenoid or pump



Multi-Function Wiper Switch	CT41DBHITA	CT42DBHITA 12 - 24 VOLT DC
	4 Positions	Off / Park   1 Intermittent   2 Speed - Low   High
		Wash   Wiper program
	Dual voltage	12 - 24 volt DC
	Park	Self parking or dynamic park
		Dimmer input
		Single motor



3 intermittent speed  
 one or two continuous speeds  
 motor brake  
 washing program  
 dimmer input  
 Plug-in connector  
 Fast-on contacts for motor connections

Multi-Function   2 motor wiper switch   CT42P	
Power Supply	10v to 30v DC
Internal Fuses	12A PTC for each motor
Stand-by current	Less than 20 mA
Protections	Polarity inversion
Motors - output currents	Single or double speed - each motor 12 amps max
Inputs	2 parking switches (open in park position   Dimmer
Outputs	2 slow - L & R SLOW 2 High speed - L & R FAST (if 2 speed motors) 1 wash pump (positive pole)
Functions	3 Intermittent settings 2 continuous speeds: slow & high speed Wash/wiper program
Connections	Relay box
	2 x 4 poles connector
	3 x female 6.3 mm fast-on
	1 x 8 poles connectors RJ45 (can bus network)
Console	1 x 4 poles Minifit conn.
	1 x 8 poles connectors RJ45 (can bus network)
Case	Relay box Grey ABS
	Switch Black ABS
Working temperature	-10°C/+50°C
Storage temperature	-20°C/+70°C



# Washer Equipment






PN#	Details		Bottles
15057400   +1x 12v	Voltage	12v   24v	
15057500   +1x24v	Litre	5 L	
15067600   +2x12v	H x W x D (mm)	182 x 330 x 125	
15057700   +2x24v	Pumps	1   2   3	
15057800   +3x12v			
15057900   +3x24v			
103.765	Voltage	24v	
	Litre	3.2 L	
	H x W x D (mm)	215 x 260 x 110	
	Kit	1 pump   2 jets connectors & hose	
TCXD-2   190x150x90	Voltage	12v   24v	
TCXD-4   160x250x104	Litre	2L   4L   5L   15L	
TCXD-5   280x310x130	Pump	single	
TCXD-6   190x400x240			
TCXD-15   150x400x240			
21.107	Voltage	12v	
	Litre	1.2 L	
	H x W x D (mm)	200 x 128 x 86	
	Pumps	single	
	Kit	Tubing   switch T piece   jets   bracket	
19WWK	Voltage	12v	
	Litre	1 L	
	H x W x D (mm)	200 x 128 x 100	
	Kit	Tubing   switch T piece   jets   bracket	
EWP16	Voltage	12v	
	Litre	1 L	
	Pump	single	
	Kit	Tubing   switch T piece   jets   bracket	

# Washer Equipment

Bottles	PN#	Details		
	W501   12v	Voltage	12v   24v	
	W514   24v	Litre	1.45 L	
		H x W x D (mm)	217 x 140 x 86	
		Pumps	single	
		Kit	Tubing   switch T piece   jets   bracket	
	W512   24v	Voltage	12v   24v	
	W5000   12v	Litre	1.7 L	
		H x W x D (mm)	125 x 195 x 108	
		Pumps	Single	
		Kit	Tubing   switch T piece   jets   bracket	
	400711AT	Voltage	12V	
		Litre	2 L	
		H x W x D (mm)	188 x 136 x 132	
		Pump	single	
	4007135AT	Voltage	12V	
		Litre	4 L	
		H x W x D (mm)	254 x 220 x 123	
		Pump	single	
	400715AT	Voltage	12v	
		Litre	4 L	
		H x W x D (mm)	193 x 241 x 140	
		Pump	single	
Connectors   Washing Tube	PN#			
	TCIL	Inline joiner		
	TCTP	Tee piece		
	TVOWV	One way valve		
	80200400	3 mm ID		
	80200500	4 mm ID		
	19481	4.76 mm ID		

# Washer Equipment



PN#	Details		Bottles
232.1003.20.00	Voltage	12v   24v	
232.1003.30.00	Litre	2.1 L	
232.2002.20.00	H X W X D (mm)	220 x 152 x 100	
232.2003.30.00	Pumps	1   2	
235.1002.20.00	Voltage	12v   24v	
235.1002.30.00	Litre	5L	
235.2002.20.00	H X W X D (mm)	181.5 x 306 x 125	
235.2002.30.00	Pumps	1   2   3	
238.1002.20.00	Voltage	12v   24v	
238.1002.30.00	Litre	8L	
238.2002.20.00	H X W X D (mm)	302 x 306 x 125	
238.2002.30.00	Pumps	1   2   3	

# Washer Equipment

Bulkhead connectors		PN#	Details	
		15030600	Twin jet	Pivot head fit
		80201001	Twin Spray head	Channel fit
		80200100	Twin Spray head	Bracket fit
		TV75400	Twin Spray head	1.3m tubing
		120.5005.39.00	Triple jet	Left head fit
		120.5025.39.00	Triple jet	Right head
		TCWJ-01	Triple jet	Left head fit
		TCWJ-02	Tripe jet	Right head fit
		TCJET881	Travelling jet	Bracket fit
		TCJET777-P	Single jet	Channel fit
		TCJET777-D		
Bulkhead connectors		PN#	Details	
		60250401	Transsom mount	10 mm
		60250402		30 mm
		60250403		42 mm
		60250405		82 mm
		TCE01	Elbow connector	12 mm
		TCE02		20 mm
		TCE03		50 mm
		TBFC03	Brass	15 mm
		TBFC02		30 mm
		TBFC01		45 mm
WP7 Twin jet	121.5005.39.CO Twim spray	TCB001 Bug Eye Jet	WP12 Twin jet	
				

# Washer Equipment



PN#	Details	Voltage	Washer Pumps
CL209M	Bulkhead mount	12v	
CL209N		24v	
TV010.00.12	Bulkhead mount	12v	
TV010.00.24		24v	
EWP13	Bulkhead mount	12v	
EWP14		24v	
80825	Bulkhead mount	12v	
80826		24v	
CL508M	Bottle mount	12v	
CL508N	Fits FDA bottles	24v	
201.0002.20.00	Bottle mount	12v	
201.0002.30.00	Fits DOGA & Hepworth bottles	24v	
TCWP12	Bottle mount	12v	
TCWP24	Fits TXCD bottles	24v	
3464514015.12	0.8 - 10 Bar	12v	
3464514015.24		24v	
			Solenoid Valve
433839	0-10 bar	12v	
134237		24v	



## 20Nm Medium Duty



Can be used in combination with the following Controllers:

- Carling Switch
- Cole Hersee Switch
- Wynn 8224 BusControl
- Pine Controller
- Toggle Switch

IDEAL FOR LOW SPEED VESSELS WITH SMALL SIZED WINDOWS

### WIPER ARMS & BLADES

#### • Pantograph

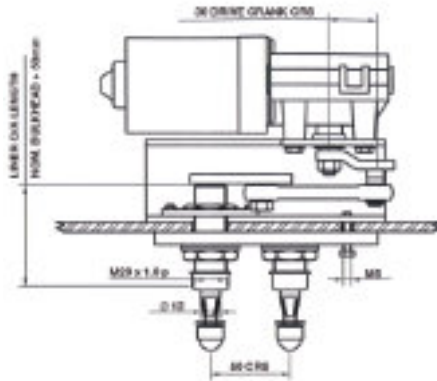
P613 Medium Duty  
Lengths 12" to 24" (310mm to 610mm) nom  
Drive Head 12mm  
Blade Clip 14mm

#### • Pendulum

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

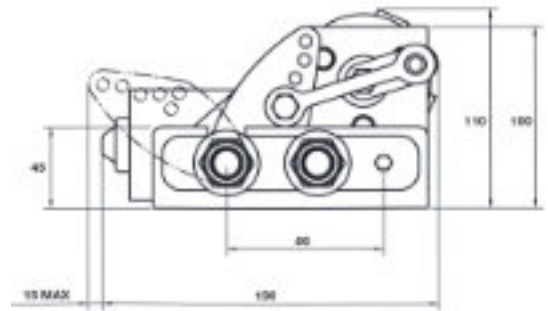
#### • Blades

B160 Curved Blade, StainlessSteel  
Lengths 12" to 24" (310mm to 610mm) nom



### 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 - BrassLiner/12mm SS Spindle
Liner Overall Length	Bulkhead Thickness+ 65mm
Idler Liner	M20 - BrassLiner/12mm SS Spindle
Bracket	No notation used for Bracket
Unit Weight	Allowing for the maximum arm and blade lengths; 3.5Kgs (7.7 lbs)



## 30Nm Medium Duty



Can be used in combination with the following Controllers:

- Carling Switch
- Cole Hersee Switch
- Wynn 8224 BusControl
- Pine Controller
- Toggle Switch

IDEAL FOR AVERAGE SPEED VESSELS WITH MEDIUM SIZED WINDOWS

### WIPER ARMS & BLADES

#### • Pantograph

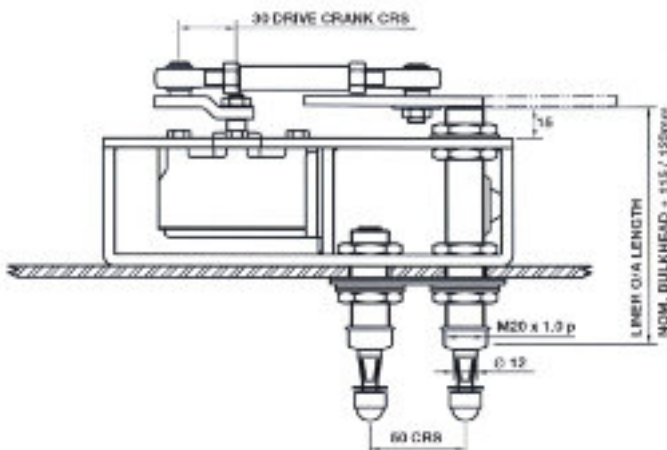
P613 Medium Duty  
Lengths 12" to 24" (310mm to 610mm) nom  
Drive Head 12mm  
Blade Clip 14mm

#### • Pendulum

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

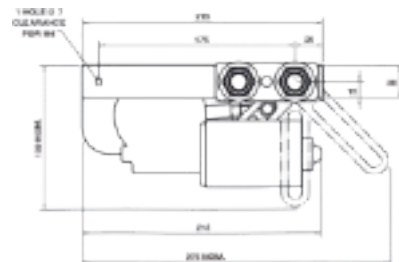
#### • Blades

B160 Curved Blade, StainlessSteel  
Lengths 12" to 24" (310mm to 610mm) nom



### 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
Idler Liner	M20 - Brass Liner/12mm SS Spindle Pantograph Units only
Liner Overall Length	Bulkhead Thickness + 120mm Liners over 125mm are available at extra cost
Bracket	C - Compact Bracket
Unit Weight	Allowing for the maximum arm and blade lengths; 4Kgs (8.8 lbs)



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## WIPER ARMS & BLADES

### • Pantograph Arms

P615 Medium Duty  
 Lengths 12" to 39" (310mm to 990mm) nom  
 Drive Head 12mm  
 Idler Head 12mm  
 Blade Clip 14mm

P620 Medium Duty  
 Lengths 12" to 39" (310mm to 990mm) nom  
 Drive Head 12mm  
 Blade Clip 14mm

### • Pendulum Arms

F63 Medium Duty  
 Lengths 12" to 39" (310mm to 990mm) nom  
 Drive Head 12mm  
 Blade Clip 14mm

F73 Medium Duty  
 Lengths 12" to 39" (310mm to 990mm) nom

### • Blades

B160 Curved Blade, Stainless Steel  
 Lengths 12" to 28" (310mm to 710mm) nom  
 32" (810mm) nom

IDEAL FOR AVERAGE  
 TO HIGH SPEED VESSELS

## SPECIFICATIONS

Standard Details 2 Speed; Self Parking; Insulated  
 Earth Return; 12v, 24v, 110v

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 SSSpindle  
 Pantograph & Pendulum Units

Idler Liner M20 - Brass Liner/12mm SSSpindle  
 Pantograph Units only

Liner Overall Length Bulkhead Thickness + 120mm  
 Liners over 125mm are available at extra cost

Bracket C - Compact Bracket

Unit Weight Allowing for the maximum arm and  
 blade lengths; 4Kgs (8.8 lbs)



## 50Nm Heavy Duty

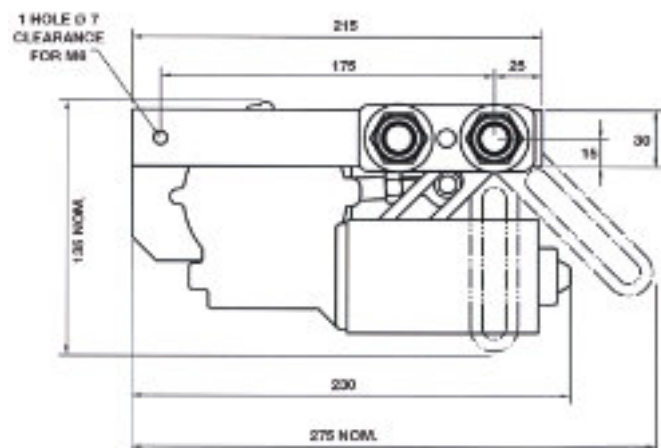
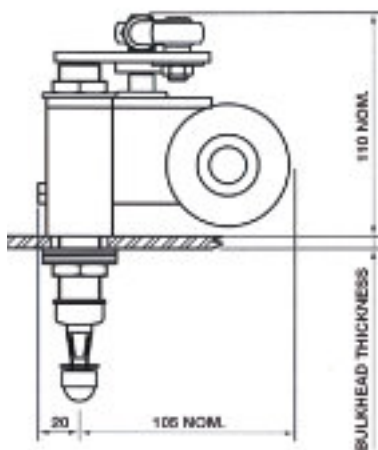
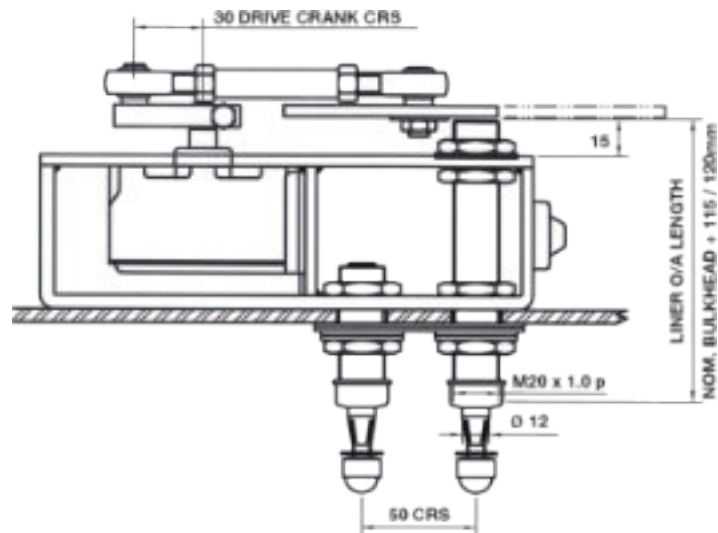
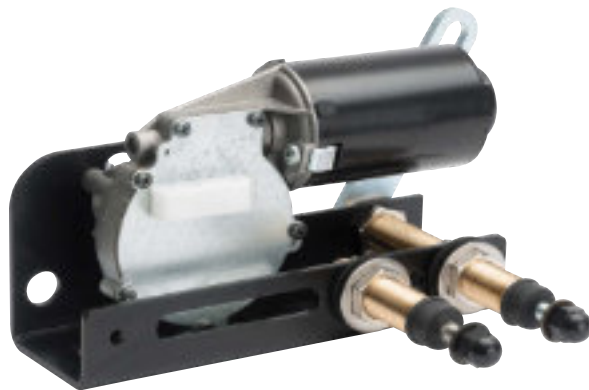
Can be used in  
 combination with the  
 following Controllers:

For 12/24v motors:

- Carling Switch
- Cole Hersee Switch
- Wynn 8224 Bus Control
- Pine Controller
- Toggle Switch

For 110 vdc motor:

- 110 vdc controller
- Toggle switch
- Wynn 8272





# 80Nm Extra Heavy Duty Window Wiper

TO HIGH SPEED VESSELS

LOW VOLTAGE SYSTEMS  
IDEAL FOR AVERAGE

Can be used in combination with the following Controllers:

- Carling Switch
- Cole Hersee Switch
- Wynn 8224 BusControl
- Pine Controller
- Toggle Switch

## 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

B160 Curved Blade, StainlessSteel  
Lengths 12" to 28" (310mm to 710mm) nom

For use with arm types:

Pendulum F80  
Pantograph P84

B160 Curved Blade, StainlessSteel  
Lengths 32" (810mm), 36" (915mm),  
39" (1000mm)

For use with arm types:

Pendulum F81  
Pantograph P84

## 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

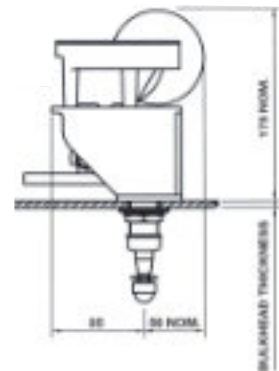
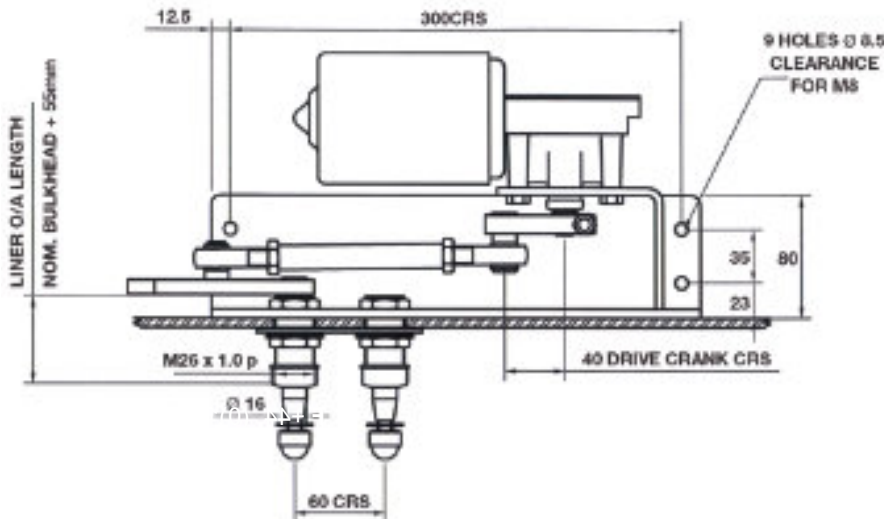
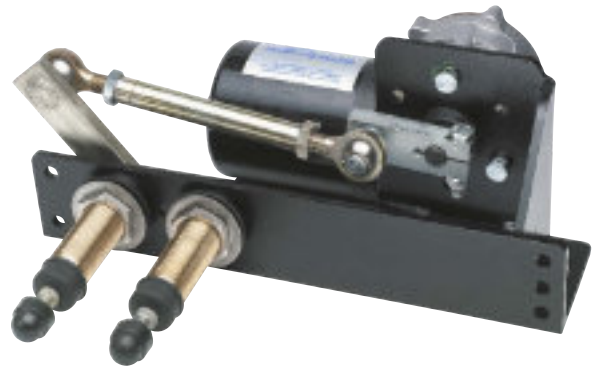
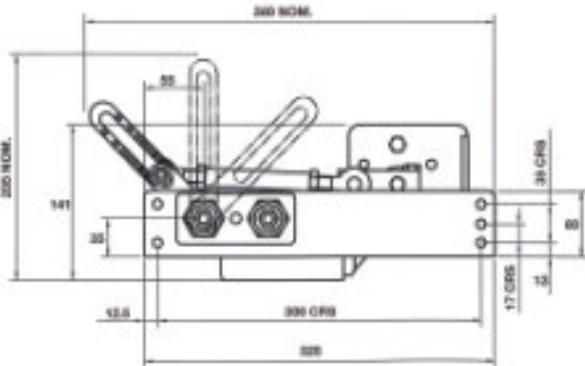
Drive Liner M26 - BrassLiner/16mm SS Spindle Pantograph & Pendulum Units

Idler Liner M26 - BrassLiner/16mm SS Spindle Pantograph Units only

Liner Overall Length Bulkhead Thickness + 55mm

Bracket C - Compact Bracket

Unit Weight Allowing for the maximum arm and blade lengths; 8Kgs (17.6 lbs)



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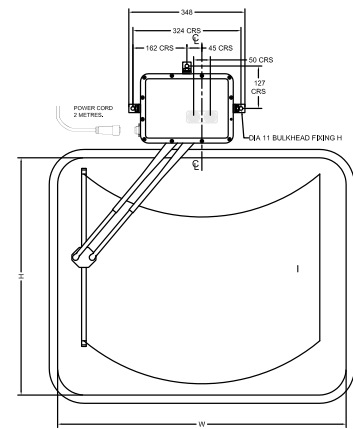
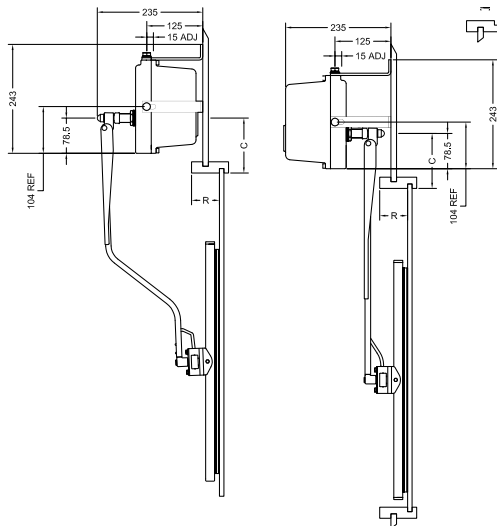
## SPECIFICATIONS

Pantograph wipe arc	Fixed arc
Blade lengths	300 to 800mm in 50mm increments
Arm lengths	300 to 850mm in 50mm increments
Wipe speeds - fast/slow	50 wipes per minute / 35 wipes per minute with intermittent and parking
Voltages / Currents	12V : 3.0 amps, 24V : 1.8 amps
Spray nozzles	Travelling spray nozzles can be incorporated onto the arms (optional)
De-icing heater	Incorporated into the drive arm, is 100 watts per metre (optional)
Blades	Rigid fitted for flat glass as standard. Articulated fitted for curved glass
Control options	P/N: 0800-05 2 speed & park, Toggle switch P/N: 0800-02 2 speed, intermittent, park & spray, Rotary switch Series 3000 Control systems, 2 speed, intermittent, park with group operation Series 6200   Series 8224



## Type 1850 External Pantograph Wipers

IDEAL FOR HEAVY  
DUTY USAGE IN  
MEDIUM  
SIZED  
APPLICATIONS



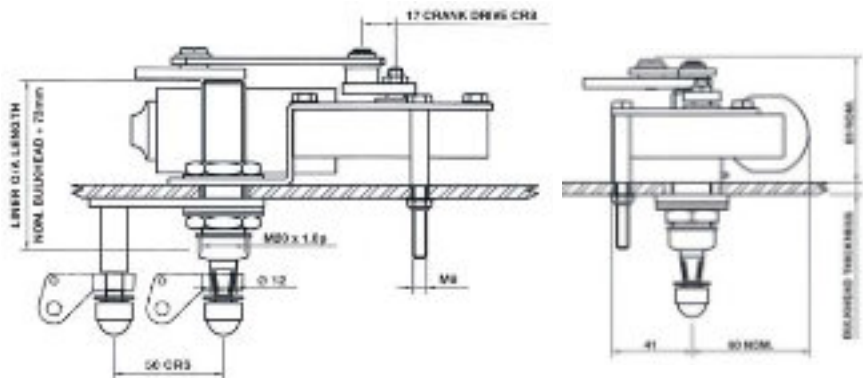
## 2Nm Light Duty Marine Motor

- Ideal for smaller vessels
- A compact lightweight unit
- Pantograph and pendulum
- Variable arc
- 12 and 24 volt DC
- Single speed
- Self parking standard
- Insulated earth return is optional
- Operated by a toggle switch
- F6 Pendulum Arm 10" up to 20"
- P5 Pantograph Arm 12" up to 20". Requires pantograph plate



## 2Nm Light Duty Window Wiper

IDEAL FOR  
SMALLER  
VESSELS




HEP WORTH MARINE  
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Spindle Assembly	Part #	Shaft   Driver	Shaft   Idler	Liner (mm)	Bearing   same	Pivot CRS
	60981800	12 DIN	12 DIN	90	10 mm pin   same	60
	60598802	16 DIN	12 DIN	90	12 mm rose   same	89
	60598702	16 DIN	12 DIN	90	12 mm rose   opposite	89
Spindle Drive	Part #	Shaft   Driver	Shaft   Idler	Liner (mm)	Bearing   same	Pivot CRS
	60934600	16 DIN		140	12 mm pin	54
	60934700	16 DIN		140	12 mm pin	67
	61210800	16 DIN		115	12 mm pin	59
	61210900	16 DIN		115	12 mm pin	65
Spindle Vari Arc	Part #	Shaft   Driver	Shaft   Idler	Liner (mm)	Bearing   same	Usage
	60650200	12 DIN		90	3/8" rose	Bus
	60650201	12 DIN		125	3/8" rose	Bus
	68005013	16 DIN		90	12 mm rose	Bus
	68005018	16 DIN		120	12 mm rose	Bus
Spindle Idler	Part #	Shaft   Driver	Shaft   Idler	Liner (mm)	Bearing   same	Plate CRS
	60122611		12 DIN	40		no plate
	60650300		12 DIN	90		60
	60650301		12 DIN	125		60
	65006407		12 DIN	70		
	65006408		12 DIN	80		
	65006410		12 DIN	100		

# Hepworth Linkage Systems



Part #	Shaft   Driver	Liner (mm)	Bearing	Pivot CRS	Spindle Vari Arc
68005001	16 DIN	57	12 mm rose		Adjustable in 5° increments
68005002	16 DIN	85	12 mm rose		
68005013	16 DIN	90	12 mm rose		
68005003	16 DIN	110	12 mm rose		
68005018	16 DIN	120	12 mm rose		
68005004	16 DIN	135	12 mm rose		
65008701	12 DIN	57	3/8"rose		
65008703	12 DIN	110	3/8"rose		
65008704	12 DIN	135	3/8"rose		
65008705	12 DIN	160	3/8"rose		
65009009	12 DIN	200	3/8"rose		
65008403	12 DIN	110 ss	3/8"rose		
Part #	Shaft   Driver	Liner (mm)	Bearing	Plate holes	Idler
68003401	16 DIN	57		60 CRS	 30/50Nm drive system
68003402	16 DIN	85		60 CRS	
68003413	16 DIN	90		60 CRS	
68003403	16 DIN	110		60 CRS	
68003416	16 DIN	120		60 CRS	
68003404	16 DIN	135		60 CRS	
60119512	12 DIN	80			
60119513	12 DIN	110			
60119506	12 DIN	150			
60119812	12 DIN	80 ss			

Part #	Shaft	Pin		
60935000	M26	M12		
61210600	M26	M12		

## Hepworth Linkage systems

B/Pedal Crank	Part #	CRS	Bearing	Mount
	61248910	45-90	12 mm rose	15.8 mm
	60264900	40-80	12 mm rose	13.6 mm
	60981600	45-90	12 mm rose	13.6 mm
	60256110	50-100	12 mm rose	13.6 mm
	60420100	55-110	12 mm rose	13.6 mm
	60446500	60-120	12 mm rose	13.6 mm
	60794100	40-80	3/8" rose	9.3 mm
	60649100	40-80	3/8" rose	9.3 mm
	60934801	45-90	12 mm rose	15.8 mm
Single Crank 30Nm & 50Nm	Part #	Centre	Bearing	Mount
	60124201	30	3/8" rose	M10-8 taper
	60620701	30	3/8" rose	M10-12 taper
	60261600	40	12 mm rose	13.26 mm
	60496301	40	3/8" rose	13.26 mm
	60619801	30	3/8" rose	9.3 mm
Single Crank 80Nm	Part #	Centre	Bearing	Mount
	6091104	57.5	12 mm pin	13.26 mm
Single Crank 80Nm	Part #	Centre	Bearing	Mount
	60846800	30	8 mm pin	9.3 mm
	60846900	30	8 mm pin	M10-8 taper


# Linkage Systems





## Hepworth


Part #	Size	Thread	CRS	Rose Bearing
10055401	12 mm	Right Hand		
10055501	12 mm	Left Hand		
10055200	3/8"	Right Hand		
10055300	3/8"	Right Hand		
60503500	3/8"	Double ended	60 mm	
60044000	3/8"	2 M5 holes	26 mm	
Part #	Size			Bearing Pin
60532700	3/8" double			
60532300	3/8" single			
Part #	Size	Length		
60009324	3/8"	500	 <p>LH Thread</p> <p>RH Thread</p>	
60121355	12 mm	115		
60121300	12 mm	380		
60121302	12 mm	460		
60121314	12 mm	500		
60121700	12 mm	700		



## Tru Vision


Part #	Shaft   Driver	Liner (mm)	Bearing	Pivot CRS	Spindle Assembly
TC456-60-89.6	12 DIN	95	14.4 mm ball	89.6	
TC456-60-102.8	12 DIN	95	14.4 mm ball	102.8	
TC456-60-90	16 DIN	85	16 mm pin	83	
TC456-60-95	16 DIN	95	16 mm pin	95	
TC107313	16 DIN	90	16 mm ball	71.3	

# Tru Vision Linkage

Spindle Drive   Idler	Part #	Shaft   Driver	Liner (mm)	Pin	
	TV102.666	12 DIN	130	10 mm	
	TV102.665	12 DIN	100		

Spindle Drive	Part #		Liner (mm)	Pin	Pivot CRS
	106 667	10 DIN	129	12 mm same side	71.3
	TC610800 NS	16 DIN	108	12 mm same side	66
	TC620800 OS	16 DIN	108	12 mm same side	85.6
	TCK-NS	16 DIN	108	12 mm same side	68
	TCK-OS	16 DIN	108	12 mm same side	90
	TV75638-85.6	M12-16 taper	100	12 mm same side	85.6
	TV75638-68.2	M12-16 taper	100	12 mm same side	68.2
	TV78000	16 DIN	100	12 mm same side	73.7
	TV78001	16 DIN	100	12 mm near side	73.7

Crank	Part #	Shaft (mm)	Mount	CRS
	TC189.472	13.26		43 mm   75 mm
	TC189.117	13.26	16 mm ball	86 mm
	TC189.118	13.26	16 mm ball	97 mm

B/Pedal Crank	Part #	Shaft (mm)	Mount	CRS
	TC459-44.5-89	13.26	16 mm pin	44.5   89
	TC459-47.5-95	13.26	16 mm pin	47.5   95
	TC459-53.4-106.8	13.26	16 mm pin	53.4   106.8

# SWF Linkage systems



Part #	Shaft (mm)	Liner	Mount	CRS	Spindle Drive
105.585	16 DIN	80	12 mm pin	85.6	
105.586	16 DIN	80	12 mm pin	70	
105.539	16 DIN	70	12 mm pin	83	
106.540	16 DIN	70	12 mm pin	70	
Part #	Shaft (mm)	Liner	Mount	CRS	Spindle Drive Assembly
107.313	16 DIN	90	16 mm ball	71.3	
Part #	Shaft (mm)	Liner	Mount	CRS	Spindle Decelerator
104.596	M26	60 mm	12 mm pin	50.5   46   46 mm	

## Tie Bar | Link Rod



Includes: 104.596 Decelerator | 105.586 spindle | connects to 104.293 crank

PN #	105.583	Pin (mm)	12
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Includes: 105.585 spindle | connects to 104.293 crank

PN #	105.584	Pin (mm)	12
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## Tru Vision Linkage



Linkage	Length mm CR- CR	Diameter Holes
TC458	400   500   510   525   550   565   575   582   585   590   635   700   750   800	16 mm

## Tie Bar | Link Rod



Part #	103.646	Link cr -cr (mm)	575 - 590	Pin (mm)	10	Dog Leg	25 mm offset
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Part #	107.317	Closed/Closed	Link cr -cr (mm)	583	Ball (mm)	16
Part #	107.318	Open Closed				



Part #	102.819	Length	497 mm to 531 mm cr - cr	Pin (mm)	10
Part #	102.820	Length	615 mm to 632 mm cr - cr		



Part #	107.708	Link cr - cr (mm)	895 to 915	Pin (mm)	12
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Part #	190.942	Link cr - cr (mm)	400	Pin (mm)	12
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Part #	107.711	Link cr - cr (mm)	500 to 510	Pin (mm)	12
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Part #	TC75366	Link cr - cr (mm)	525   550   635	Crank crs	51.4*102.8	Motor Shaft	11.8 mm	Ball (mm)	14.4 dia
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Part #	TV75663	Link cr - cr (mm)	770	Crank crs	51.5 x 103	Motor Shaft	15.8 mm	Pin (mm)	12
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# Feipeng Linkage Assembly



Linkage Assembly	Shaft	Crank Cr	Spindle Taper	Spindle Liner	Spindle CRS	Motor
FPLDG-0001	13.26 coarse	57.5 mm	M12-16 mm	95 mm	70 mm   85.6 mm	SD2733A







Linkage Assembly	Shaft	Crank Cr	Spindle Taper	Spindle Liner	Spindle CRS	Motor
FPLDG-0003	13.26 coarse	48.5 x 97	M8-12mm	90 mm	73 mm	ZD2733A

## Small Parts

Part #		Nut		
10060300	10063500	M8   13 mm	M10   17 mm	
Part #	Arms			
80002200	P612   P613   P153   P162			
TCRSA-1	TV Large			
TC153053	Various			
80005100	P84   P85   P90   P95			
Part #	Ball Size			
LRC16	16 mm			

## Classic Car Wiper Parts

Blades	Part #	Length	Connection
	SSWB10	10"	Bayonet 6 mm
	SSWB11	11"	
	SSWB10-7	10"	Bayonet 7 mm
	SSWB12-7	12"	
	SS10FBN	10"	Bayonet 6 mm
	SS10FSP	10"	5mm Spoon
	21-303	255 mm	Hook fit
	21-305	350 mm	
	21-409	400 mm	10 mm saddle
	21-412	350 mm	
	21-413	450 mm	
	21-429	563 mm	13.7 mm saddle

Arms	Part #	Length	Shaft (mm)	Connection
	SSWA11L	11"	13.6 mm	6 x 2 mm bayonet
	SSWA11R			
	KG-7007 RH	12"	13.6 mm	6 x 2 mm bayonet
	KG-7008 LH			
	21-304	240 - 380 mm	6 mm	hook
	16582	205-305 mm	6 mm	5 mm bayonet





***SCREEN WIPER SOLUTIONS***

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