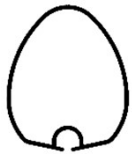
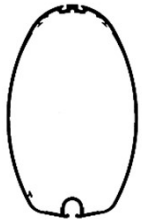
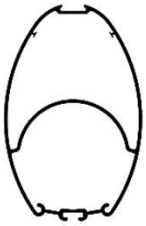
Z Spars UK is 1 of 3 companies that manufacture alloy masts, booms, rigging, spars and fittings for sailing yachts around the world. We can supply spars & rigging to amateur & processional sailors alike, as well as providing the leading boat builders.

Our staff are available to discuss your requirements over the phone or via email. If you plan on visiting our premises please call us first to confirm that the relevant member of staff will be present when you arrive.

WE DELIVER WORLDWIDE

We have a modern factory on the outskirts of Hadleigh, Suffolk, where our craftsmen complete each mast, boom & spar by hand.

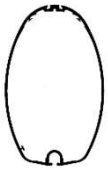
Current Mast & Boom Sections

SECTION REFERENCE	DIMENSIONS mm	INERTIAE (see note 1) cm4	WALL THICKNESS (see note 2) mm	WEIGHT / METRE kg	APPROX YACHT SIZE ft	SCHEMATIC VIEW
Delta Masts						
Z145	81 x 68	45 x 29	2.1	1.45	15-19	
Z170	98 x 68	65 x 33	1.9	1.65	18-20	
Z190	108 x 78	94 x 50	2	1.92	20-22	
Z230	122 x 82	143 x 69	2.3	2.29	23-26	
Z265	143 x 96	238 x 118	2.2	2.72	24-26	
Z351	160 x 105	391 x 173	2.2	3.44	26-29	
01/02 Series Masts						
Z401	179 x 119	601 x 260	2.8	4.1	27-30	
Z502	190 x 125	750 x 323	3.4	4.6	30-34	
Z531	200 x 124	998 x 380	3.3	5.33	30-35	
Z532	201 x 124	998 x 380	3.3	5.33	30-35	
Z602	223 x 138	1411 x 518	3.3	6.21	34-36	
Z702	240 x 146	1951 x 726	3.3	7.61	36-38	
Z902	257 x 160	2641 x 1022	4.3	8.96	38-43	
Z1002	290 x 175	3677 x 1452	4.5	9.77	43-50	
Z1252	310 x 182	4994 x 1838	5.5	11.76	50-53	
Furling Masts						
Z300E	160 x 105	400 x 162	2.2	3.9	24-28	
Z400E	183 x 117	585 x 280	2.6	5.2	27-30	
Z532E	200 x 124	785 x 370	2.8	5.77	30-34	
Z600E	220 x 131	1250 x 490	3	6.4	33-36	
Z602E	223 x 137	1286 x 544	3.5	6.9	33-36	
Z702E	240 x 146	1624 x 731	3.5	7.64	35-38	
Z900E	255 x 160	2430 x 1000	3.7	9.72	41-45	
Z902E	257 x 160	2301 x 1032	3.7	9.7	41-45	
Z1100E	293 x 176	3550 x 1550	3.9	11.48	45-50	
Z1400E	340 x 200	6125 x 2613	4.7	14.77	50-60	
Booms						
Z162	104 x 64	97 x 37	1.7	1.62		
Z202	134 x 75	200 x 71	2.3	2.54		
Z362	170 x 95	460 x 180	2.6	3.64		
Z482	190 x 101	824 x 295	3.6	5.21		
Z692	230 x 136	1665 x 671	3.2	6.67		
Furling Booms						
Z162E	114 x 64	97 x 37	1.7	1.62		
Z202E	134 x 75	200 x 71	2.3	2.54		
Z362E	170 x 95	460 x 180	2.6	3.64		
Z482E	190 x 101	824 x 295	3.6	5.21		
Z692E	230 x 136	1665 x 671	3.2	6.67		

Note 1: Moments of Inertia: these numbers give an indication of the relative stiffness of each section about the athwartships and fore-and-aft axes respectively.
Note 2: Wall thickness is variable around the section

The yacht size for a particular section is a guide only. Please consult.

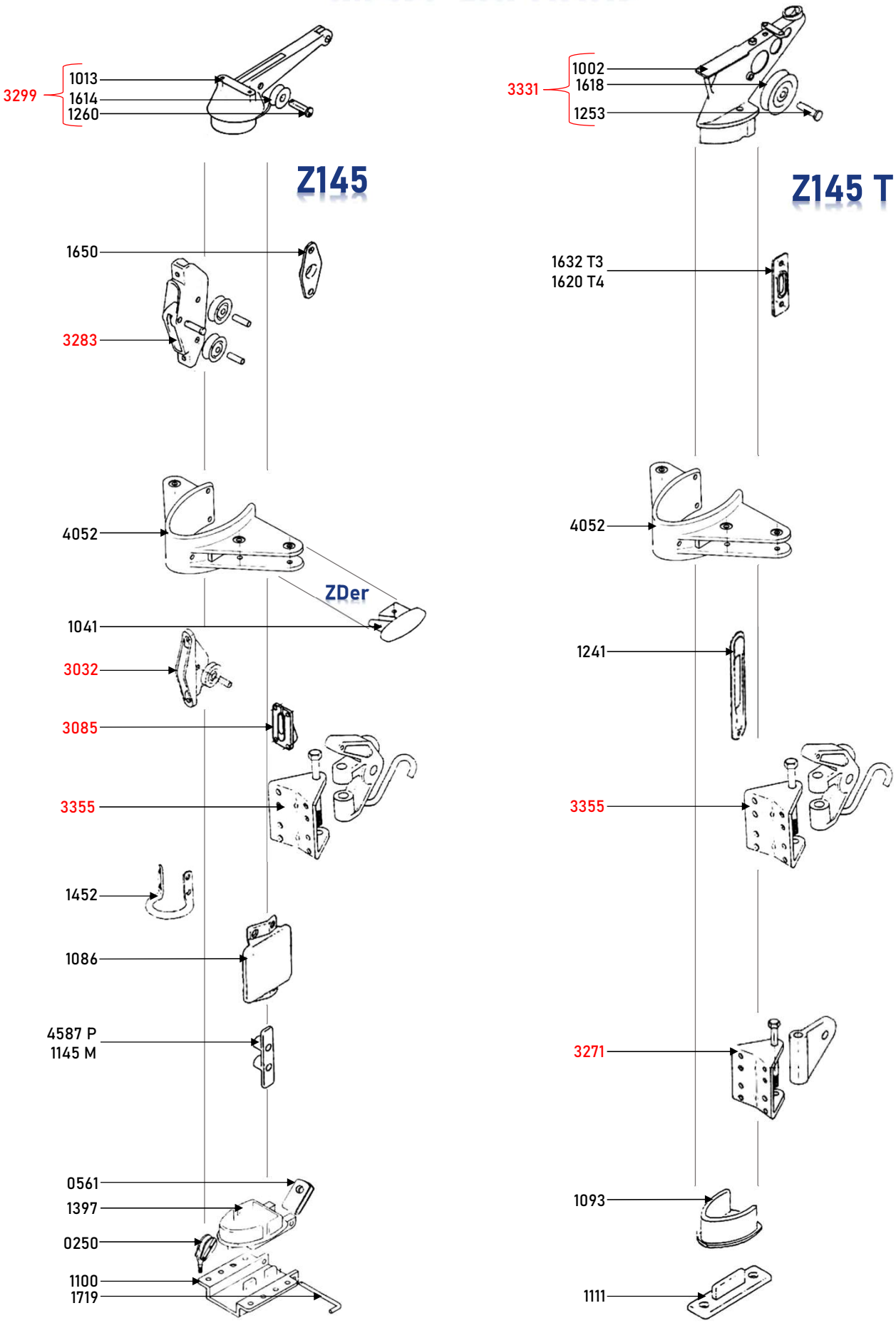
Discontinued Mast & Boom Sections

SECTION REFERENCE	DIMENSIONS mm	INERTIAE (see note 1) cm4	WALL THICKNESS (see note 2) mm	WEIGHT / METRE kg	APPROX YACHT SIZE ft	SCHEMATIC VIEW
01/02 Series Masts						
Z402	180 x 118	601 x 260	2.8	4.1	27-30	
Z501	189 x 125	760 x 326	3.3	4.6	30-34	
Z601	223 x 138	1280 x 502	3.5	6	34-36	
Z701	232 x 145	1702 x 686	4	7.28	36-38	
Z901	255 x 160	2460 x 1100	4.4	8.7	38-43	
Z1001	290 x 175	3677 x 1452	4.5	9.77	43-50	
Furling Masts						
Z700E	231 x 137	1505 x 621	3.4	7.5	35-38	
Booms						
Z120	71 x 61	45 x 24	1.5	1.2		
Z160	94 x 68	60 x 32	1.5	1.56		
Z204	118 x 86	125 x 68	2	2.28		
Z360	145 x 105	380 x 150	2.5	3.29		
Z480	180 x 125	750 x 300	3	4.82		
Z690	232 x 145	1660 x 462	2.9	6.24		
Furling Booms						
Z160E	94 x 68	60 x 32	1.5	1.56	Z160E	
Z204E	118 x 86	125 x 68	2	2.28	Z204E	
Z360E	145 x 105	380 x 150	2.5	3.29	Z360E	
Z480E	180 x 125	750 x 300	3	4.82	Z480E	
Z690E	232 x 145	1660 x 462	2.9	6.24	Z690E	

Note 1: Moments of Inertia: these numbers give an indication of the relative stiffness of each section about the athwartships and fore-and-aft axes respectively.
Note 2: Wall thickness is variable around the section

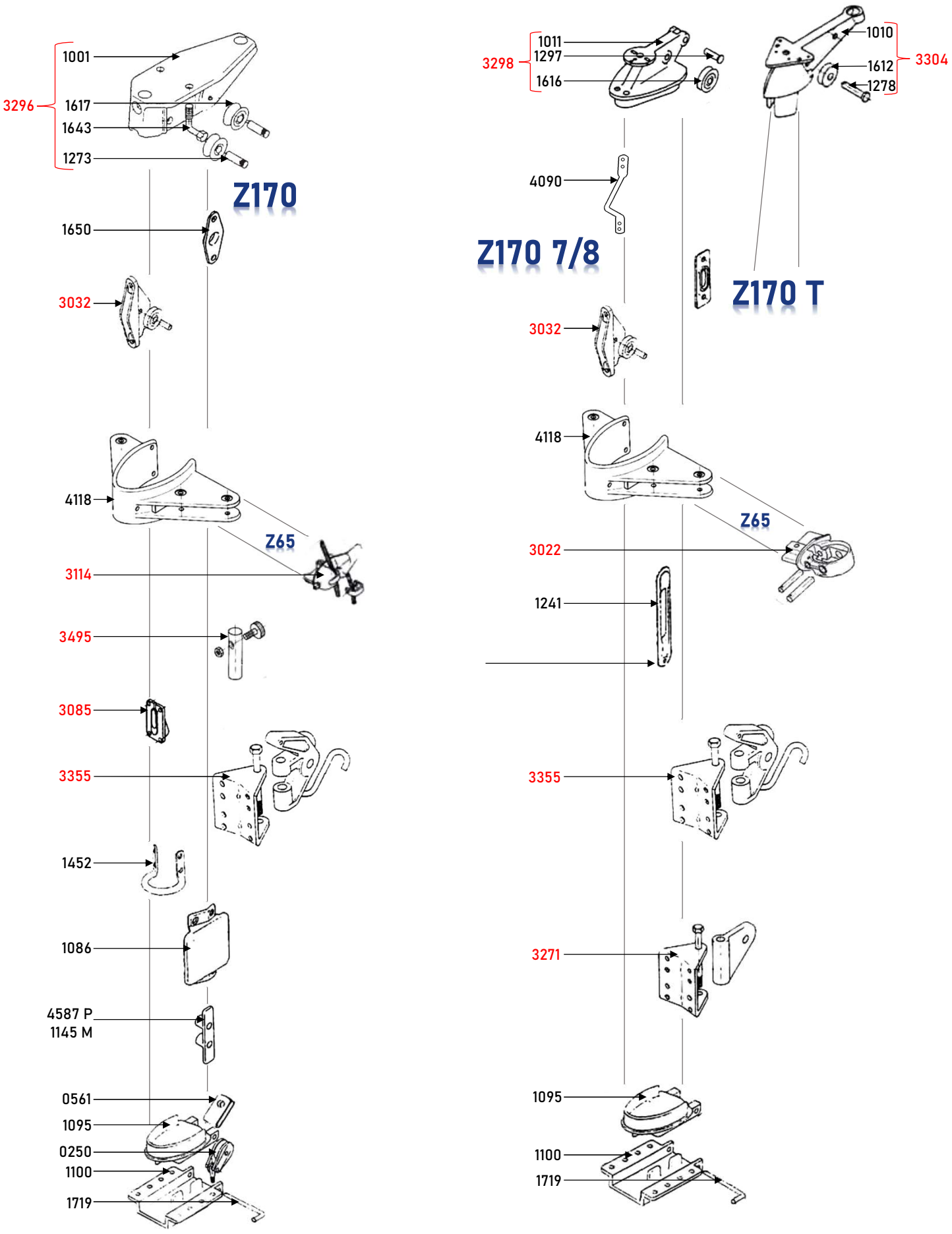
The yacht size for a particular section is a guide only. Please consult.

Mast Sections



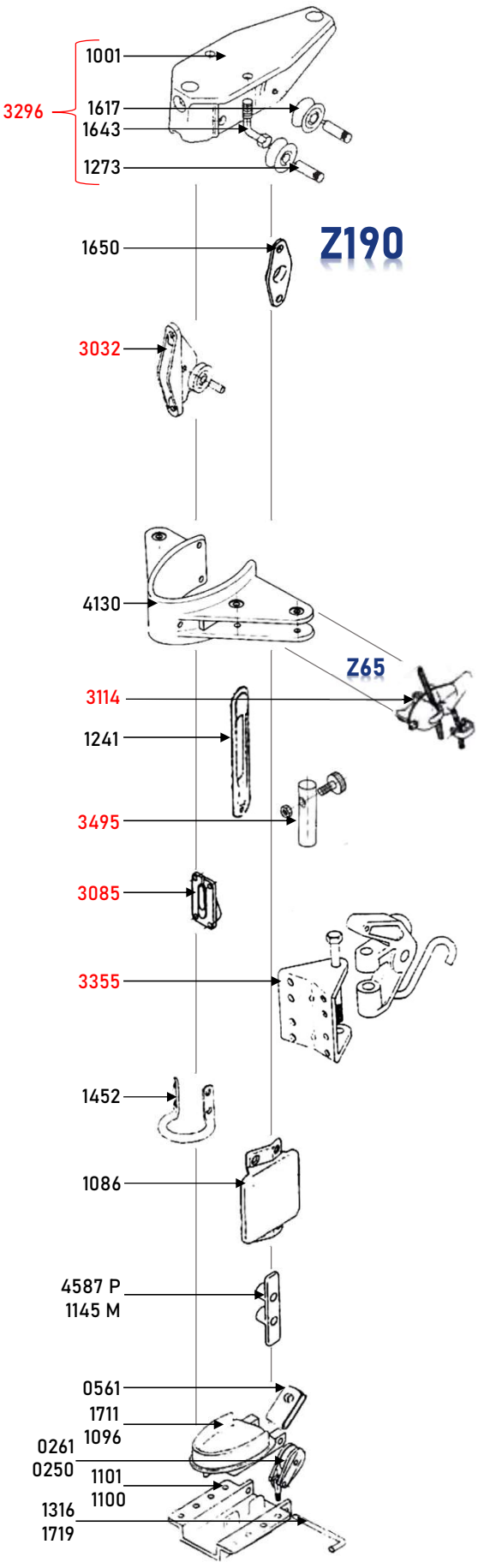
Red = Assembly P = Plastic M = Metal Ø = Diameter

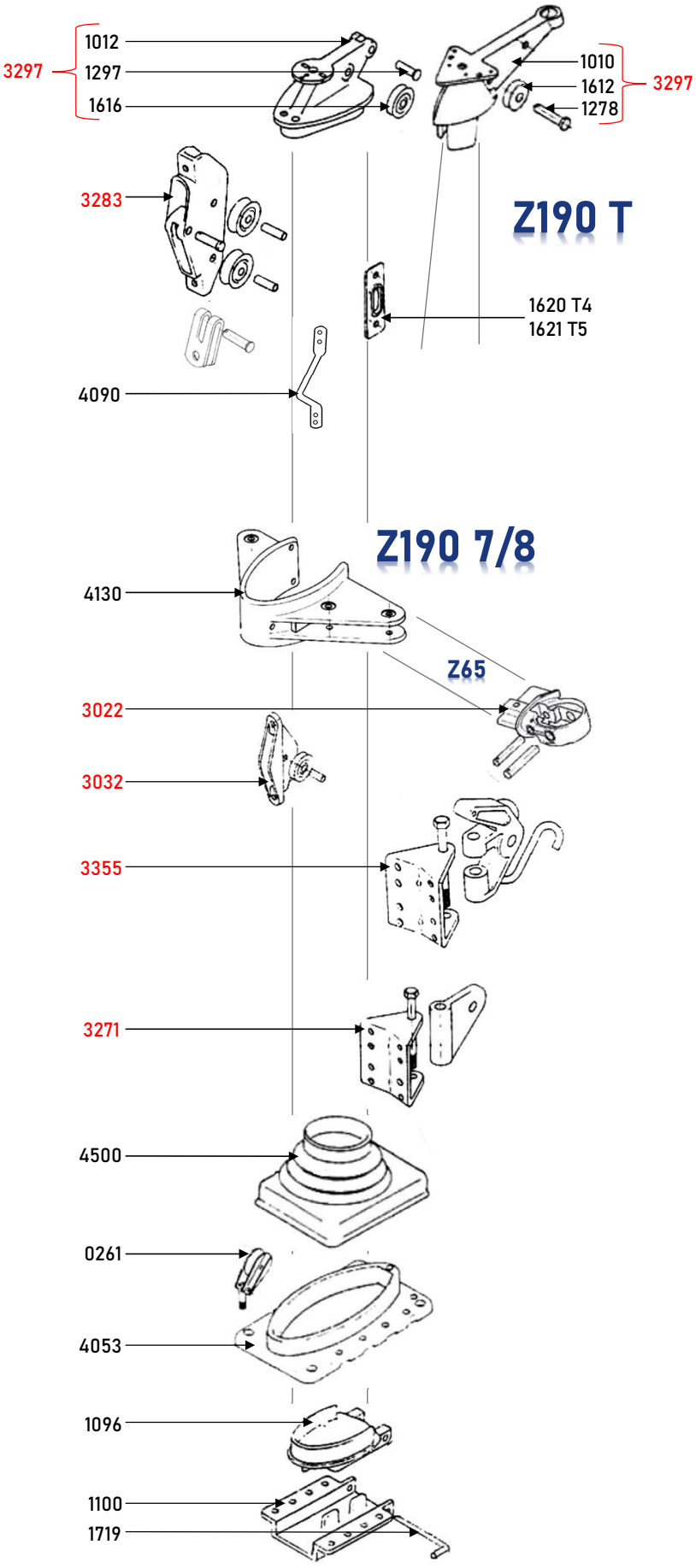
Mast Sections



Red = Assembly P = Plastic M = Metal Ø = Diameter

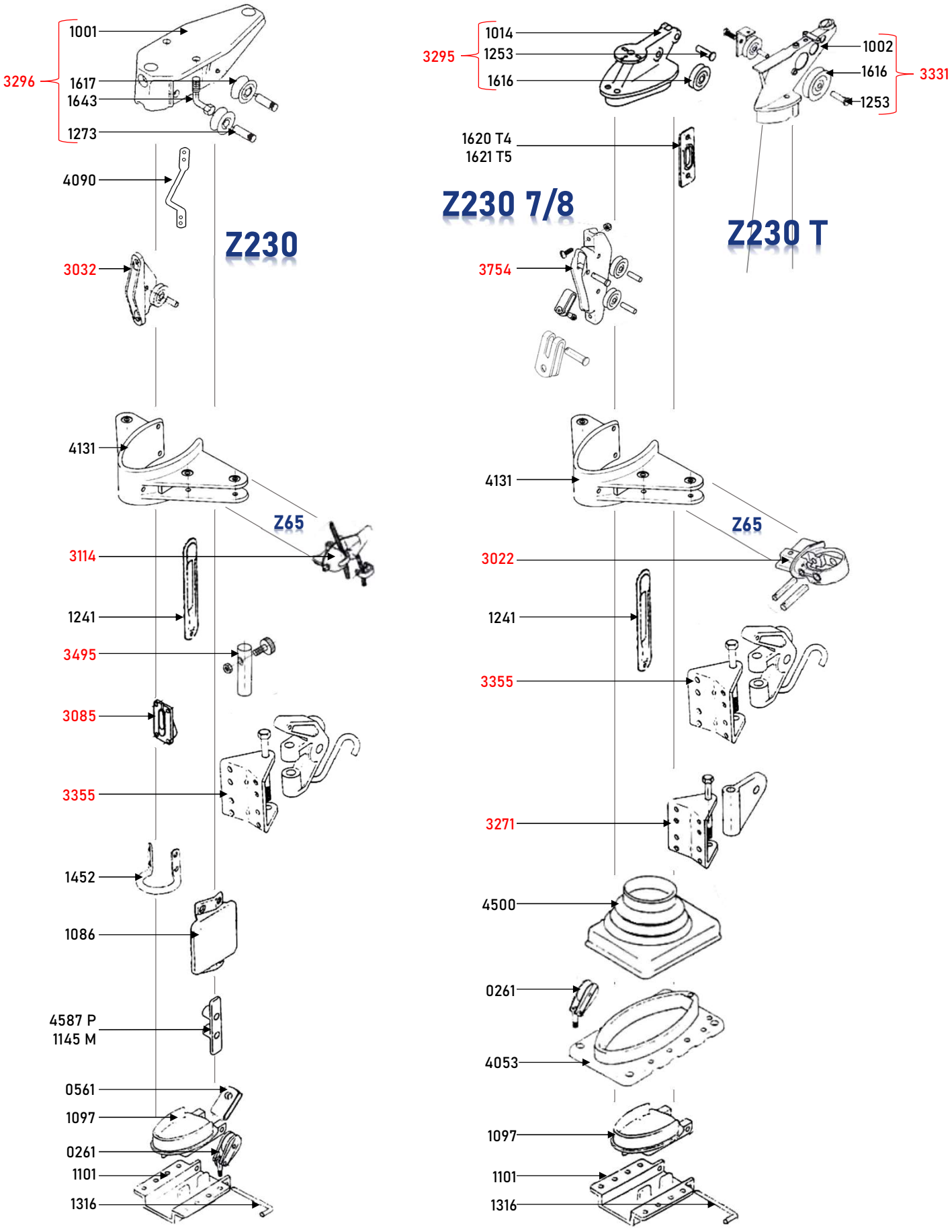
Mast Sections





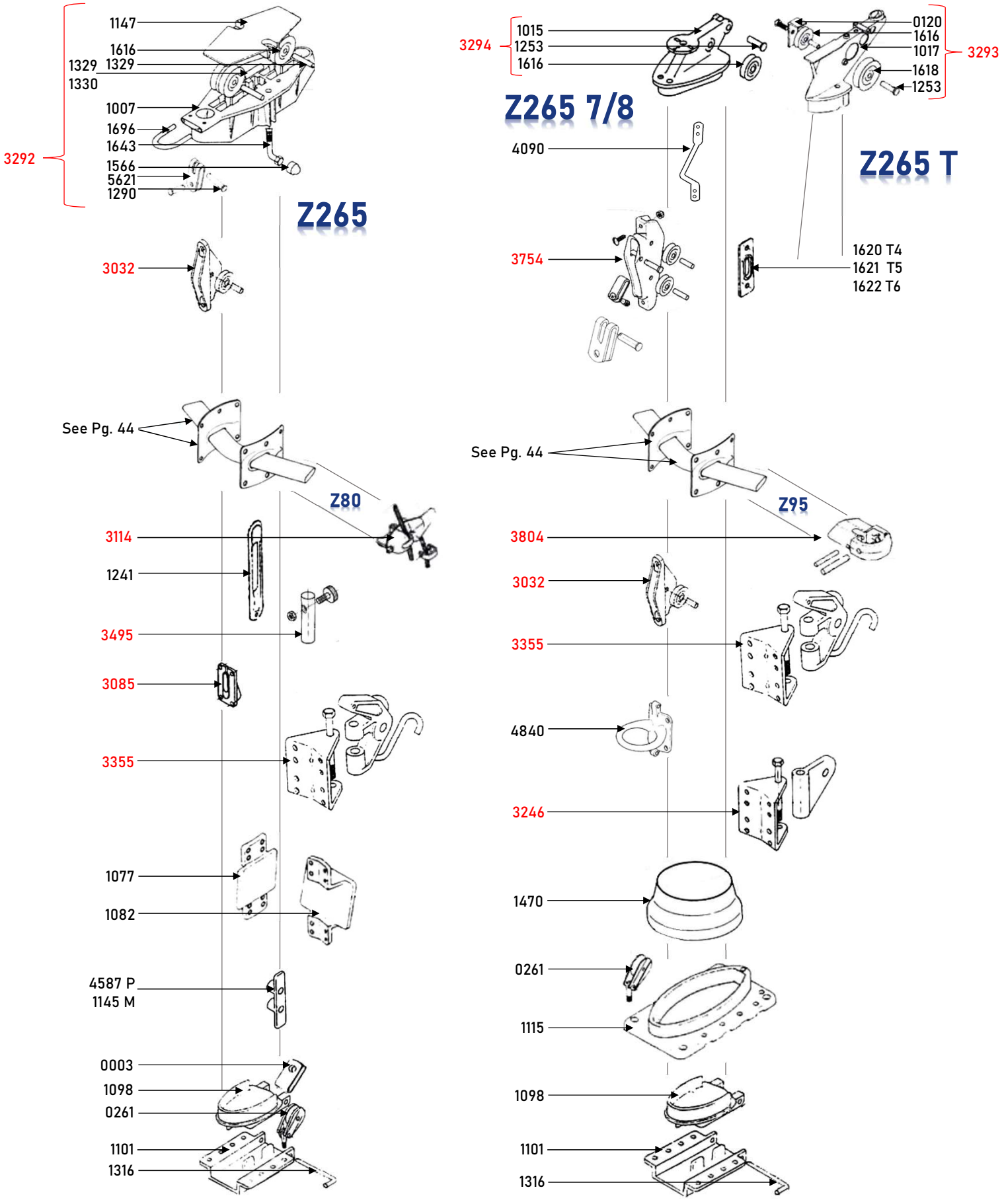
Red = Assembly P = Plastic M = Metal Ø = Diameter

Mast Sections



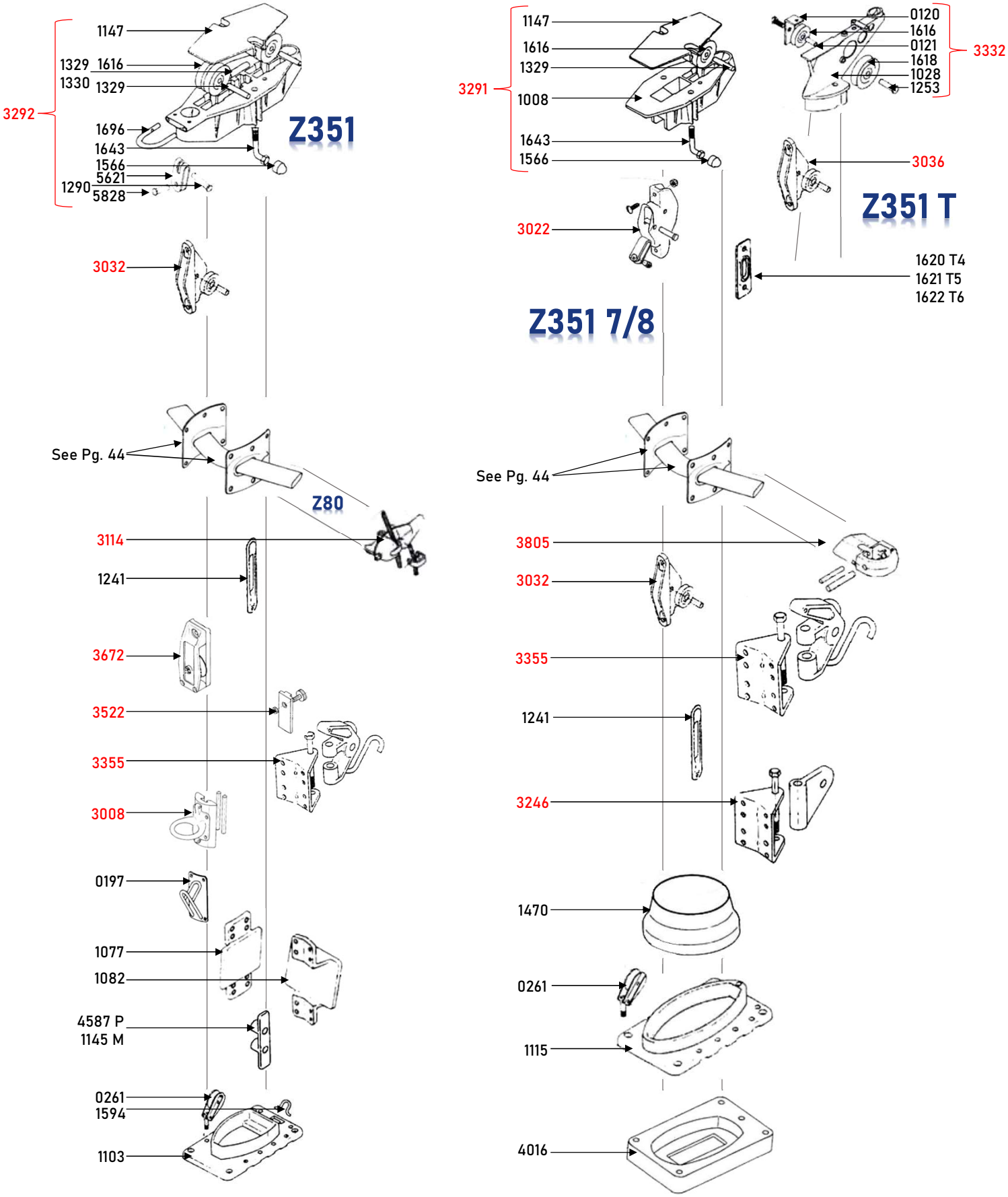
Red = Assembly P = Plastic M = Metal Ø = Diameter

Mast Sections



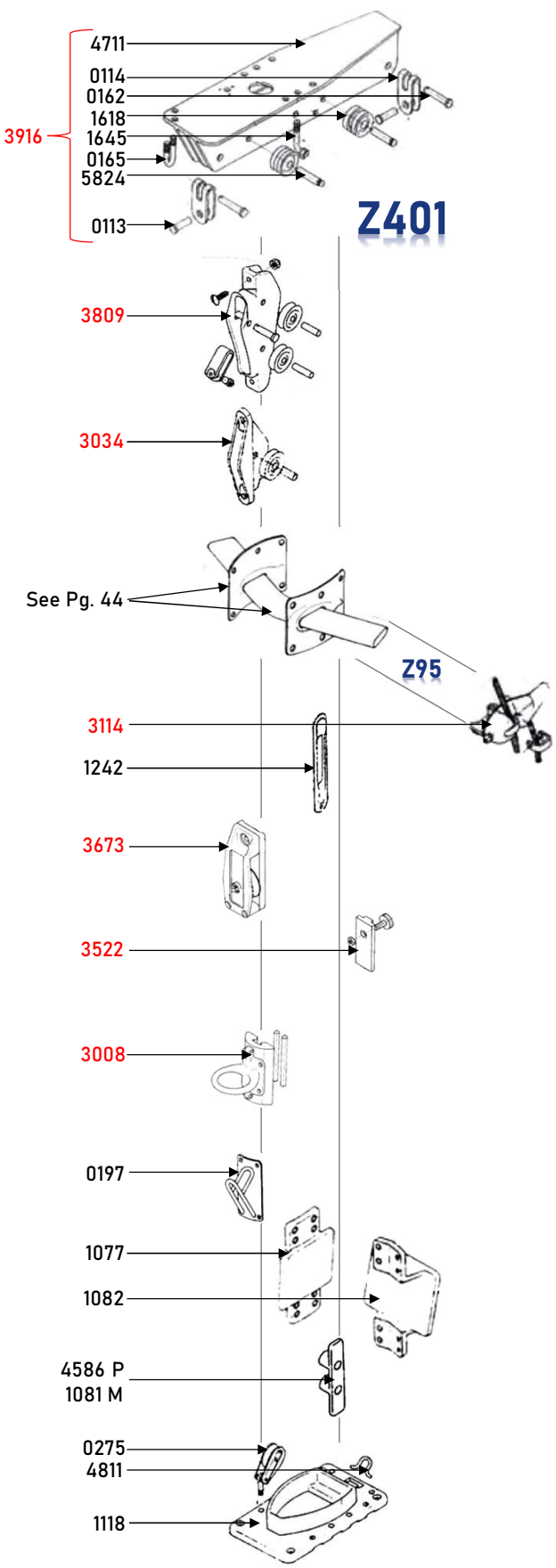
Red = Assembly P = Plastic M = Metal Ø = Diameter

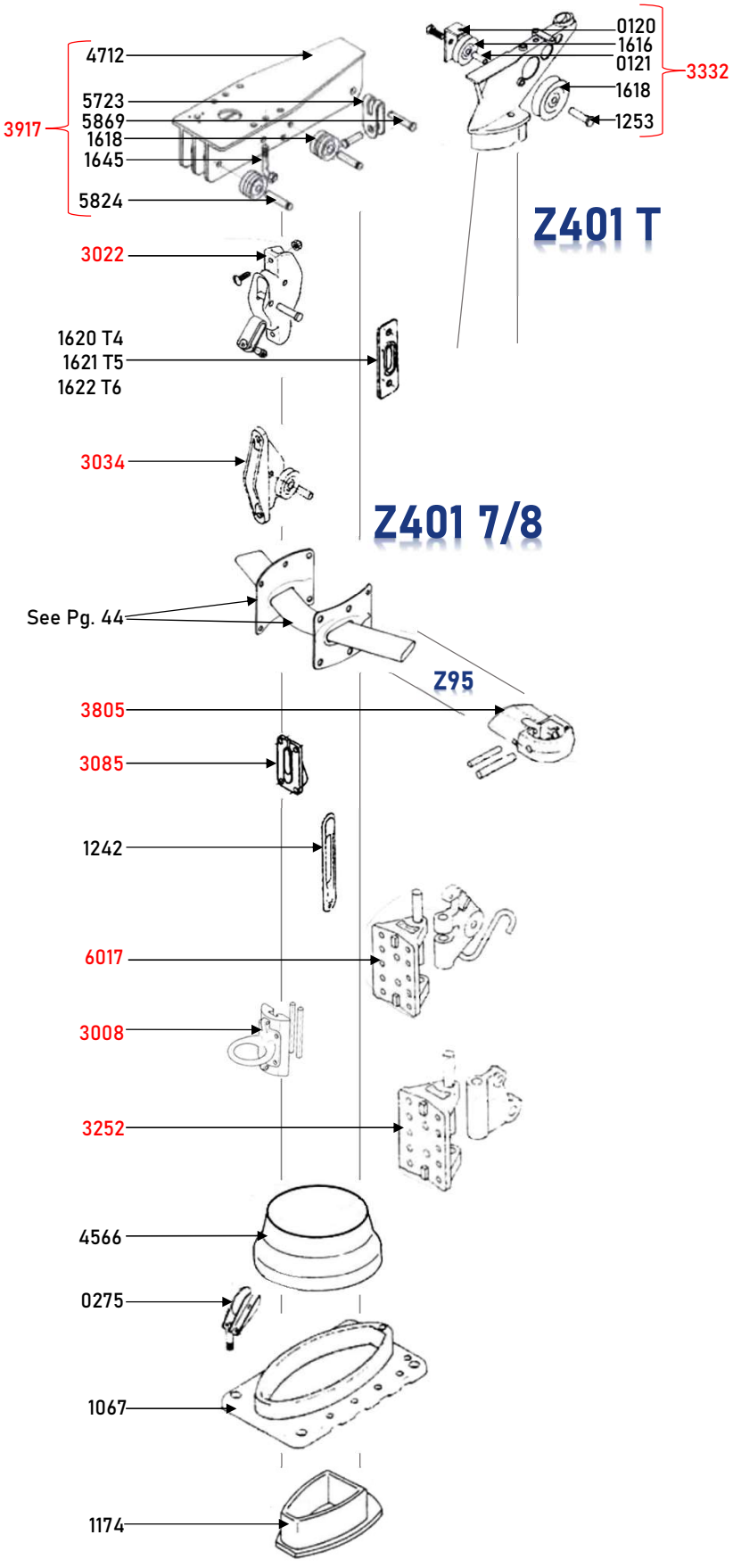
Mast Sections



Red = Assembly P = Plastic M = Metal Ø = Diameter

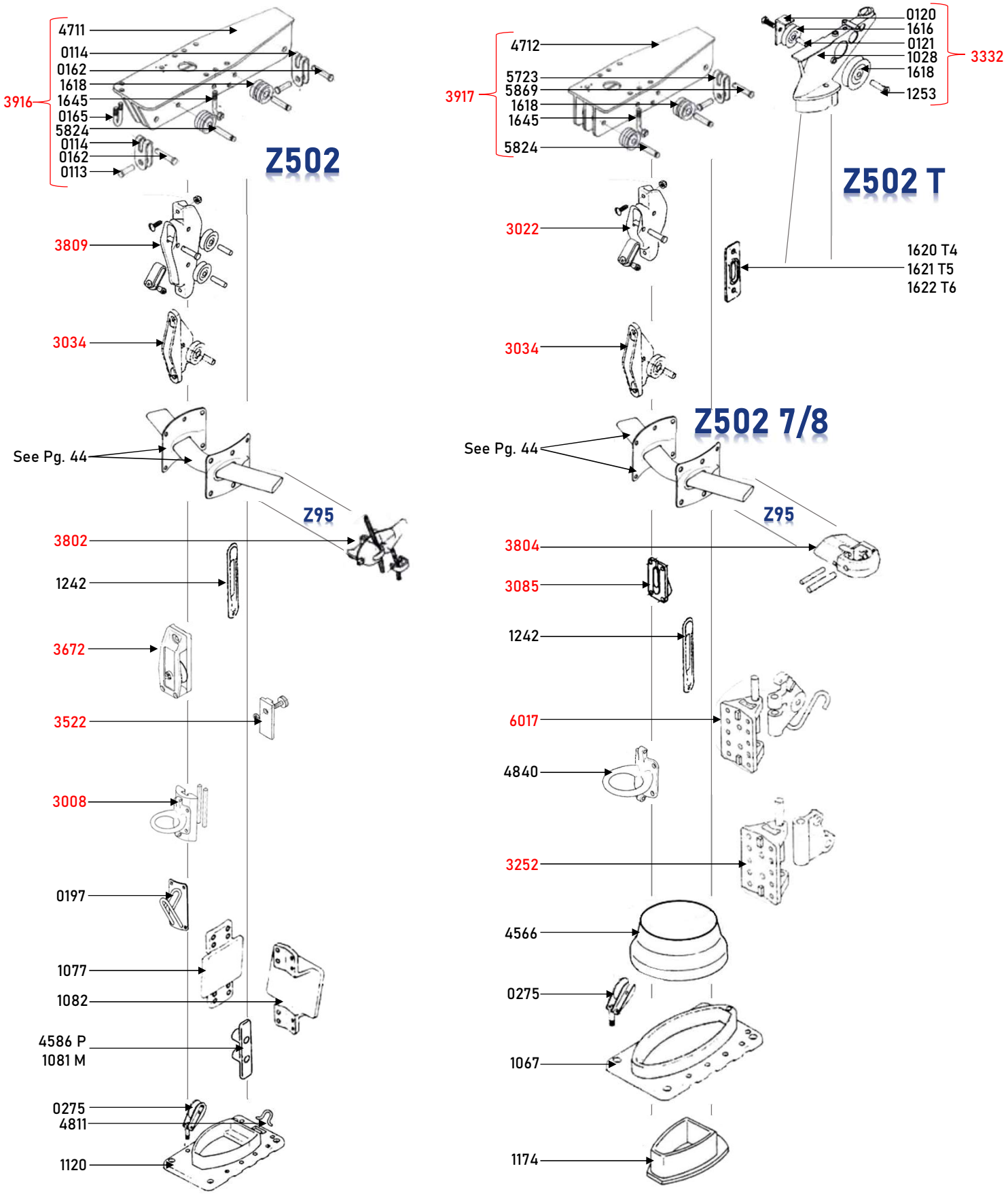
Mast Sections





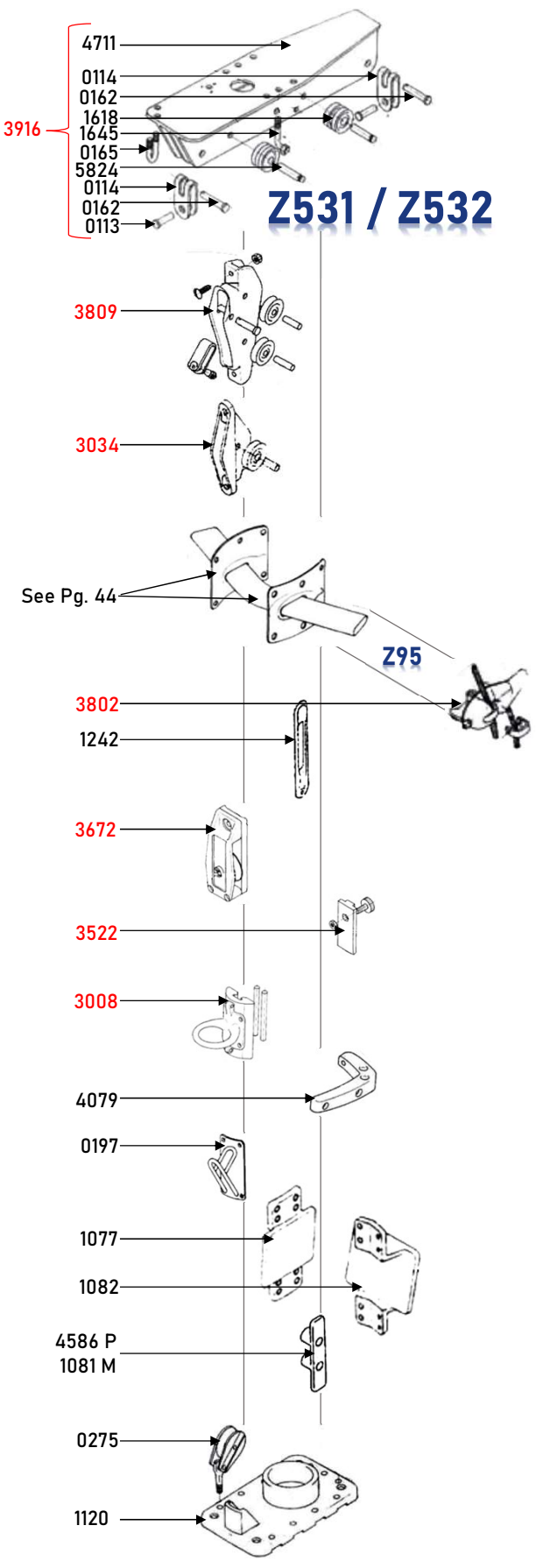
Red = Assembly P = Plastic M = Metal Ø = Diameter

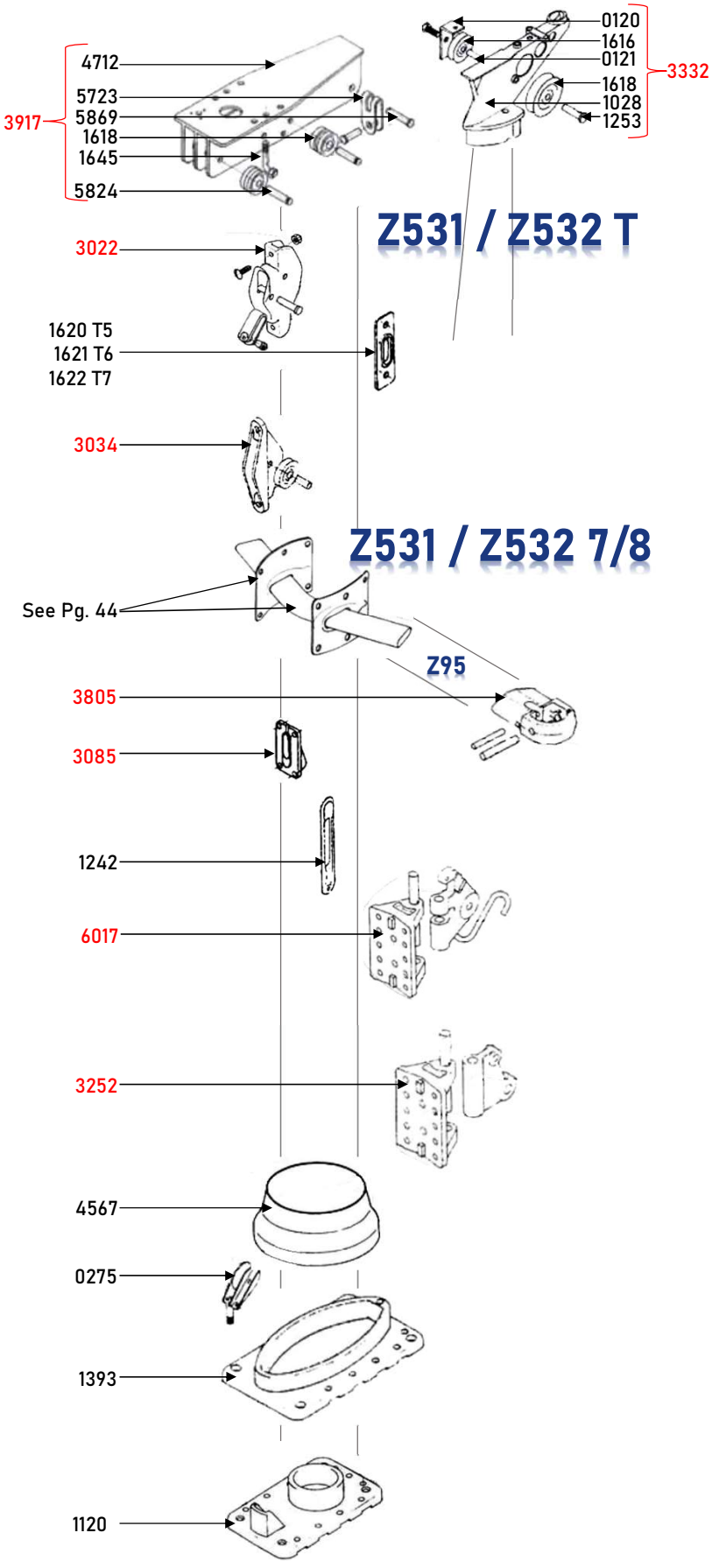
Mast Sections



Red = Assembly P = Plastic M = Metal Ø = Diameter

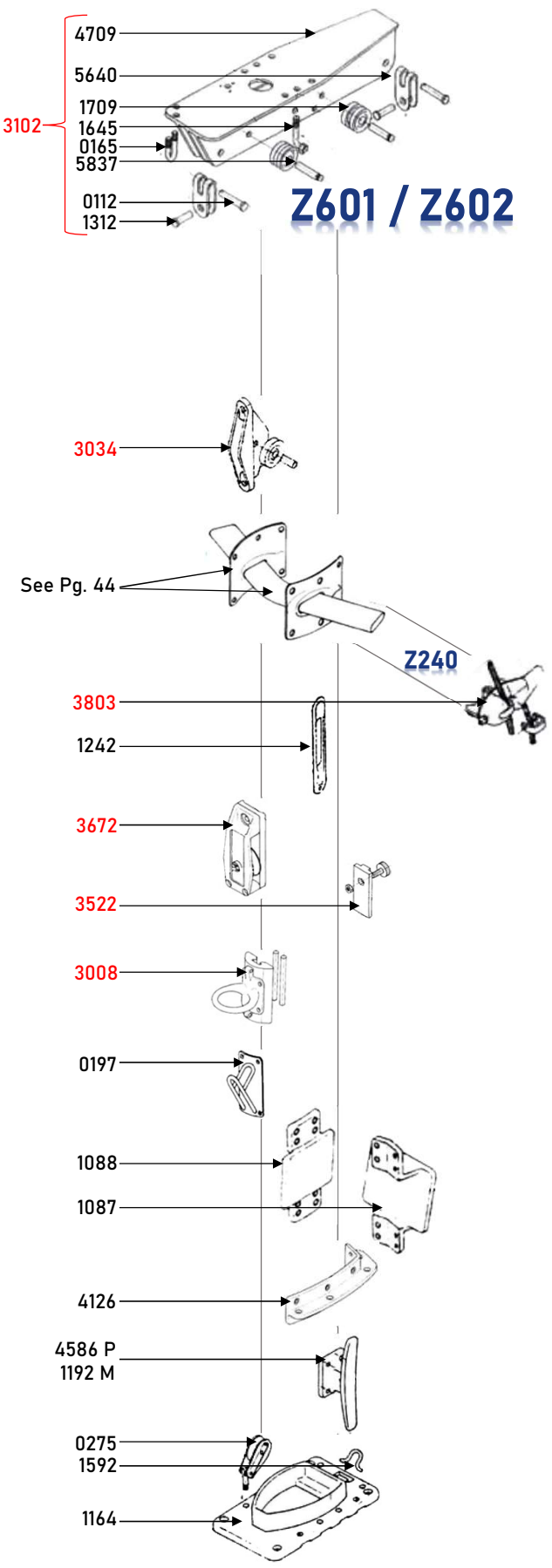
Mast Sections

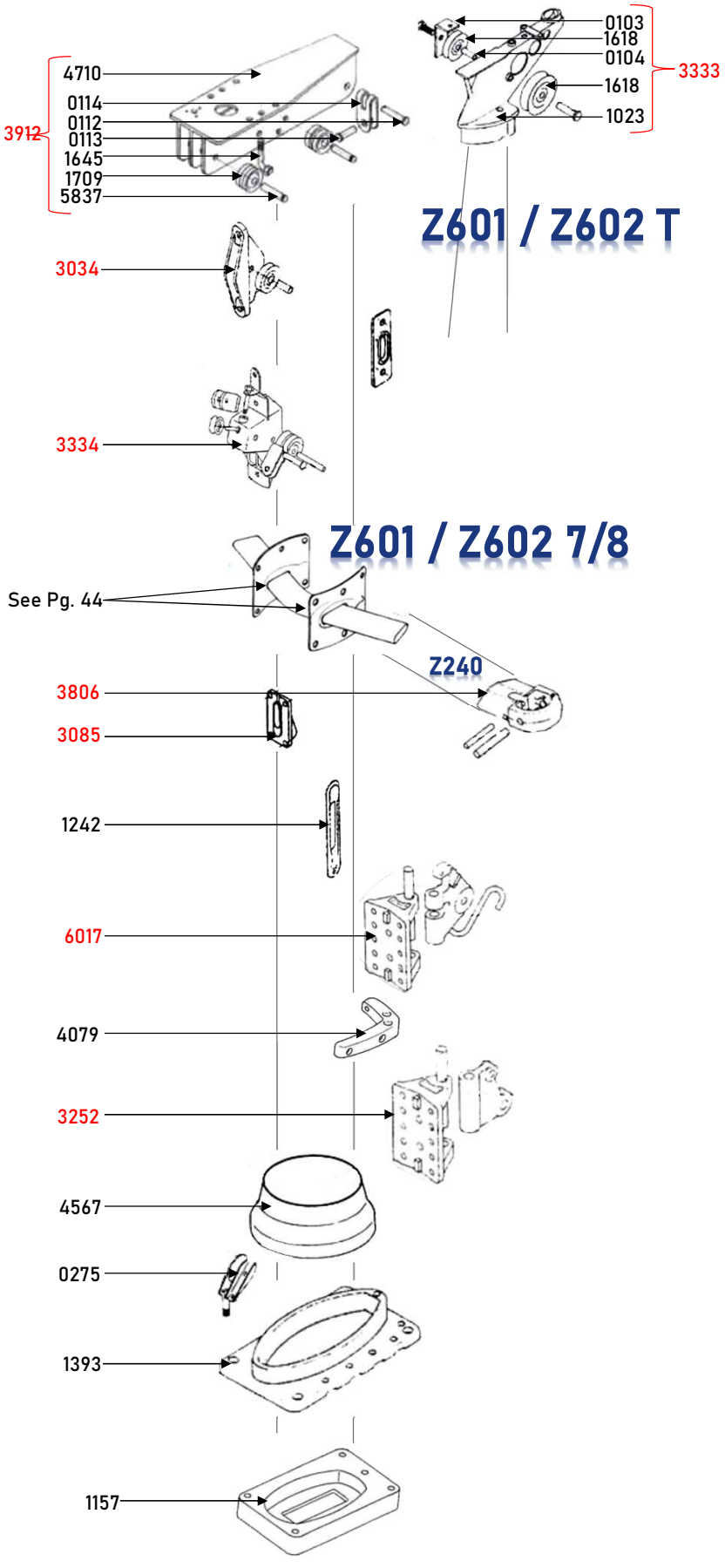




Red = Assembly P = Plastic M = Metal Ø = Diameter

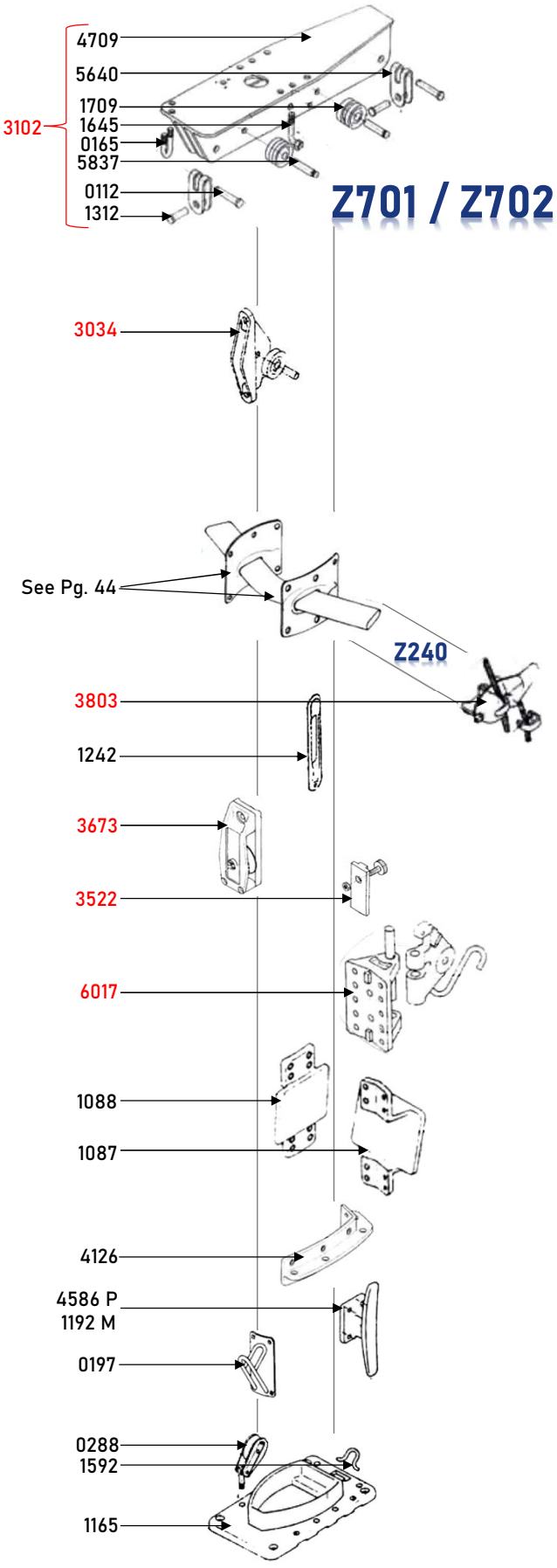
Mast Sections

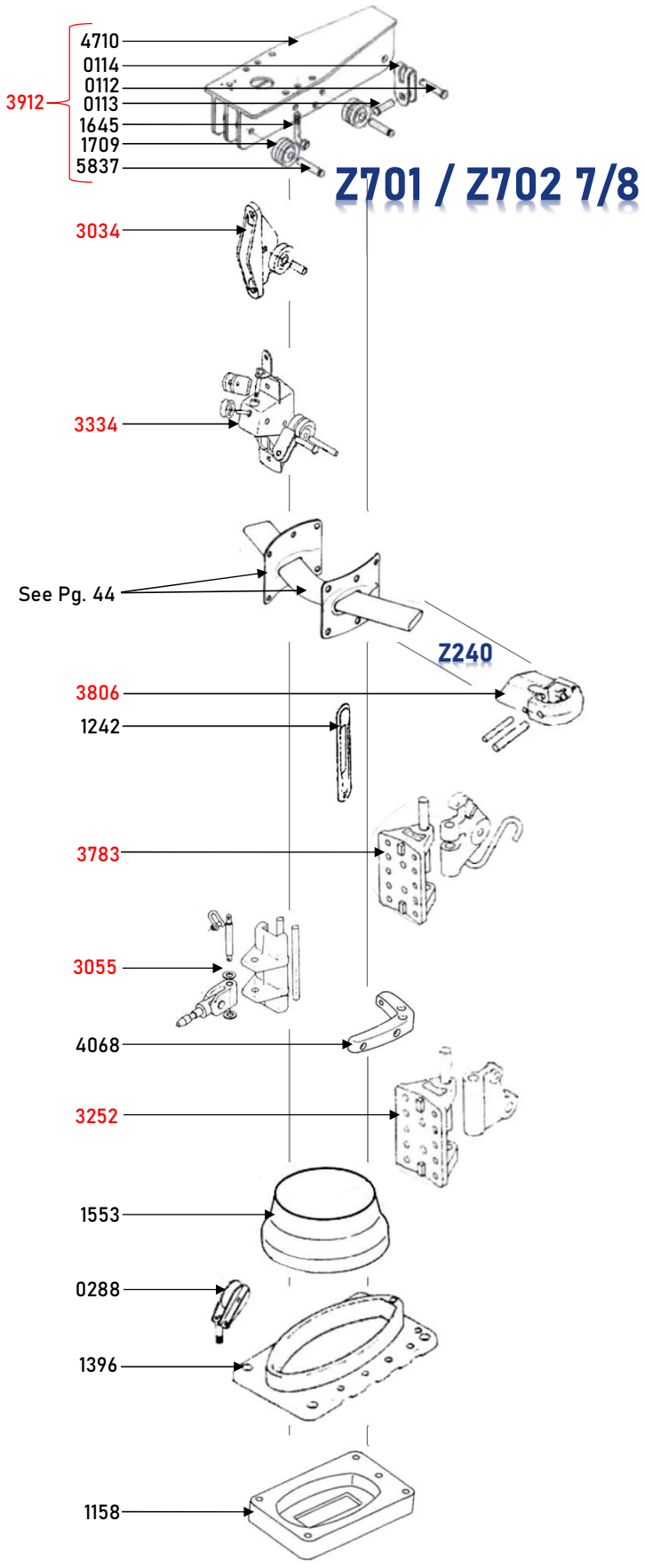




Red = Assembly P = Plastic M = Metal Ø = Diameter

Mast Sections

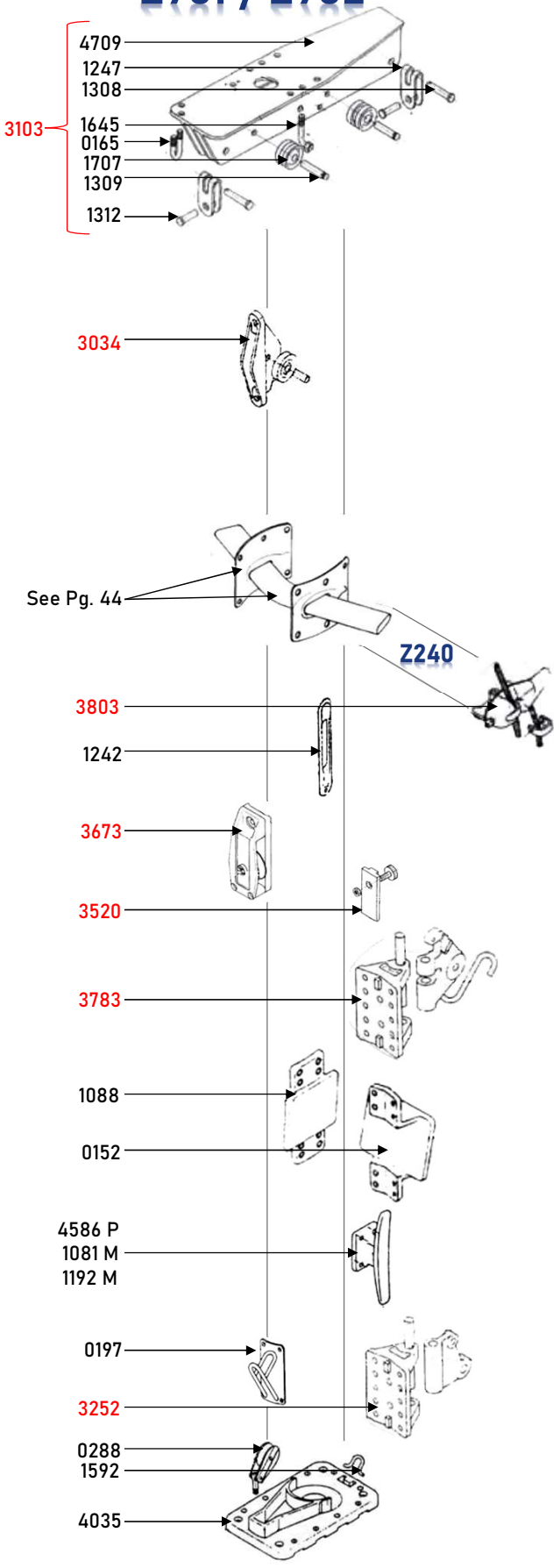




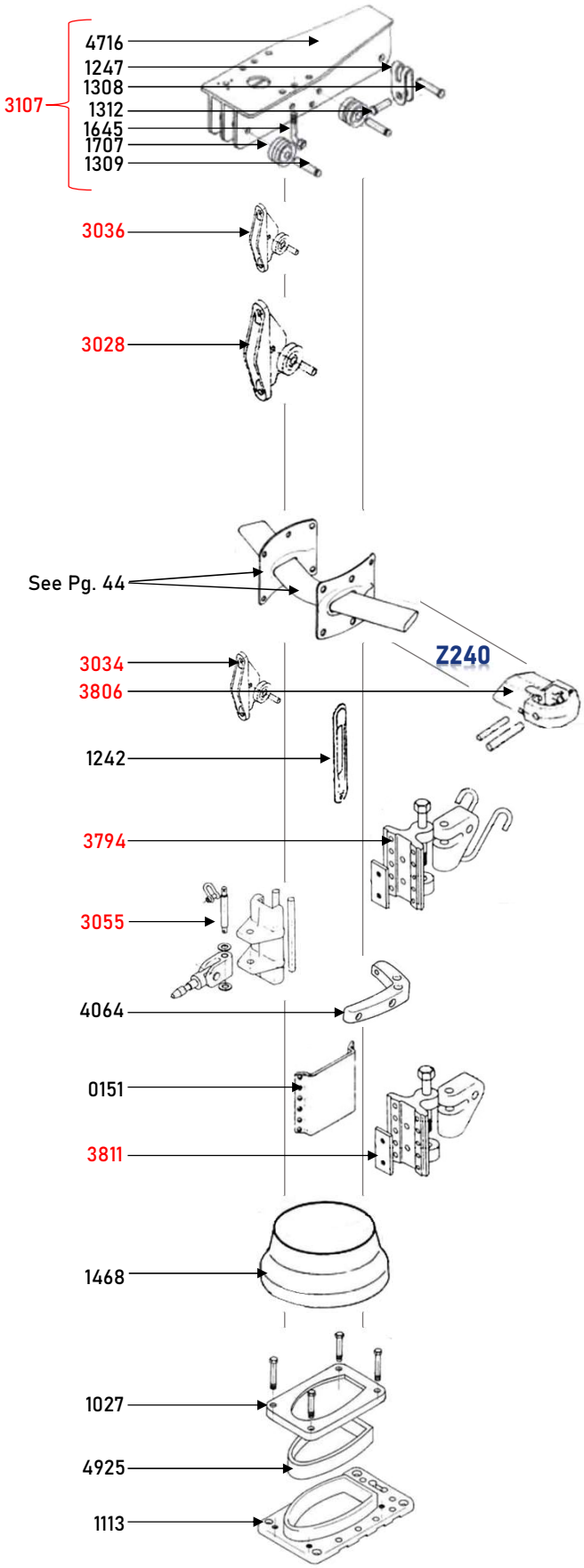
Red = Assembly P = Plastic M = Metal Ø = Diameter

Mast Sections

Z901 / Z902



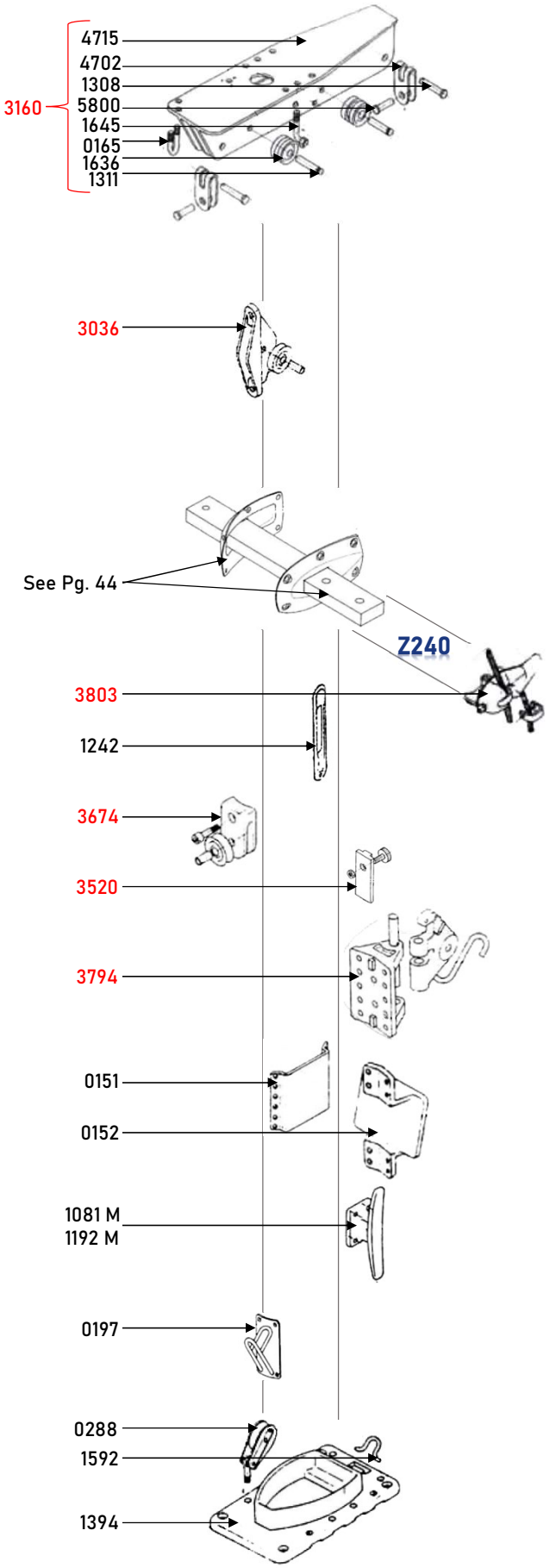
Z901 / Z902 7/8



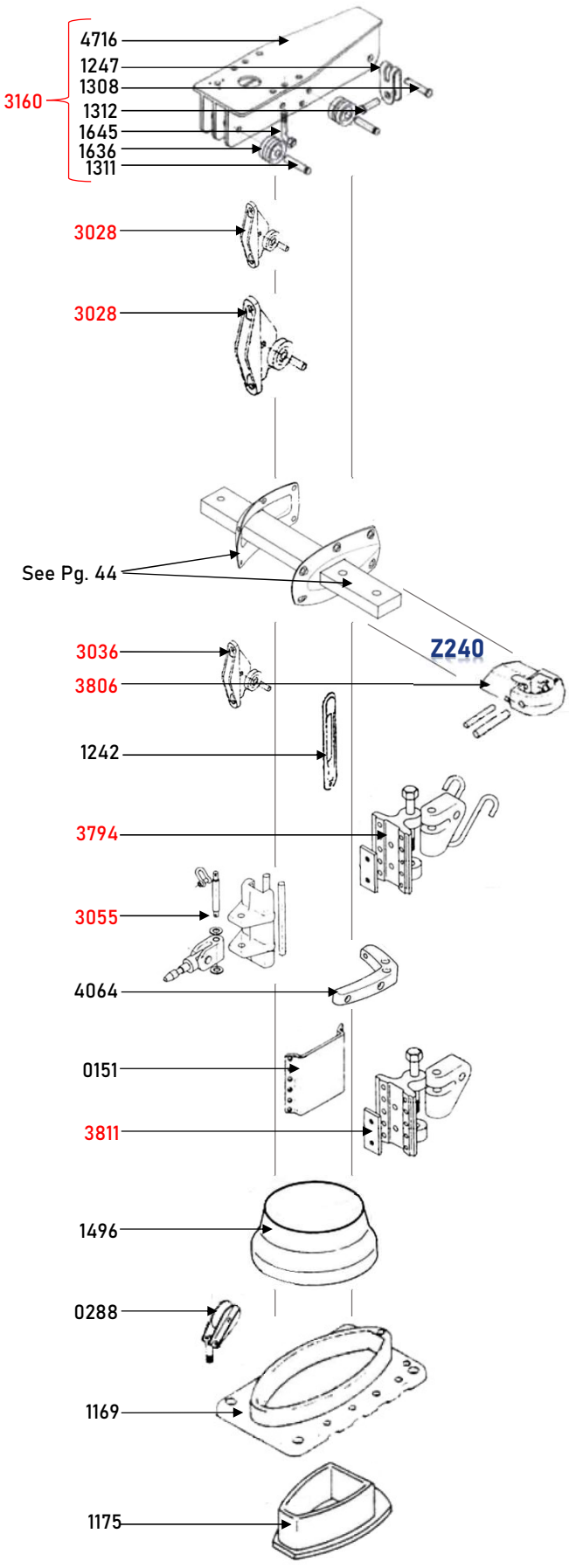
Red = Assembly P = Plastic M = Metal Ø = Diameter

Mast Sections

Z1001 / Z1002



Z1001 / Z1002 7/8

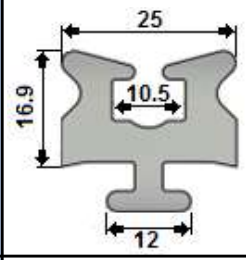
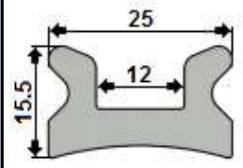
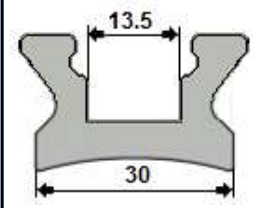
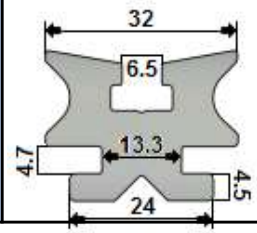


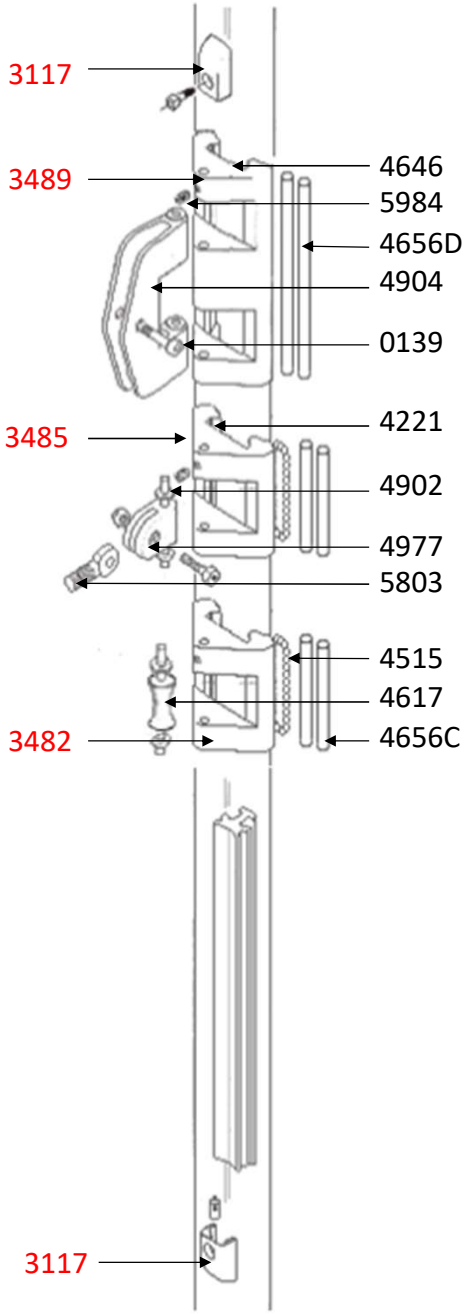
Red = Assembly P = Plastic M = Metal Ø = Diameter

Batten Car Systems

We have developed a new car system to cope with the special requirements of fully battened mail sails. The system runs on Torlon ball bearings or rod bearings with all cars machined from solid aluminium. Track and cars are anodised silver.

A sail requires the following batten cars:
1 x Headboard Car, 1 x Car per Batten, 1 x Intermediate Car between each Batten.

	25mm Tracks	System Parts	
R 25/1 932		Head Car	**3489**
		Batt Car	**3485**
		Inter Car	**3482**
		Masts	**Z401-Z902** **Z300E-Z902E**
R 25/4 931		Track End	**3117**
		Ball Bearing	**4515**
		Rod Bearing	**4656**
	32mm Tracks	**System Parts**	
R 32 619		Head Car	**3472**
		Batt Car	**3857**
		Inter Car	**3454**
		Masts	**Z1002-Z1400** **Z1100E-Z1252E**
R 32/1 663		Track End	**3117**
		Ball Bearing	**4517**



This system comes with a one-piece track and is compatible with any Z Spars mast section.

Batten Cars & Slides

Batten Cars

			
Part No	**3489**	**3485**	**3482**
Type	Headboard	Batten	Intermediate
Track Size	25mm	25mm	25mm
Bearing Type	Rod	Ball or Rod	Ball or Rod
			
Part No	**3472**	**3857**	**3454**
Type	Headboard	Batten	Intermediate
Track Size	32mm	32mm	32mm
Bearing Type	Ball	Ball	Ball
Spare parts available – Please ask for details			

Batten Slides

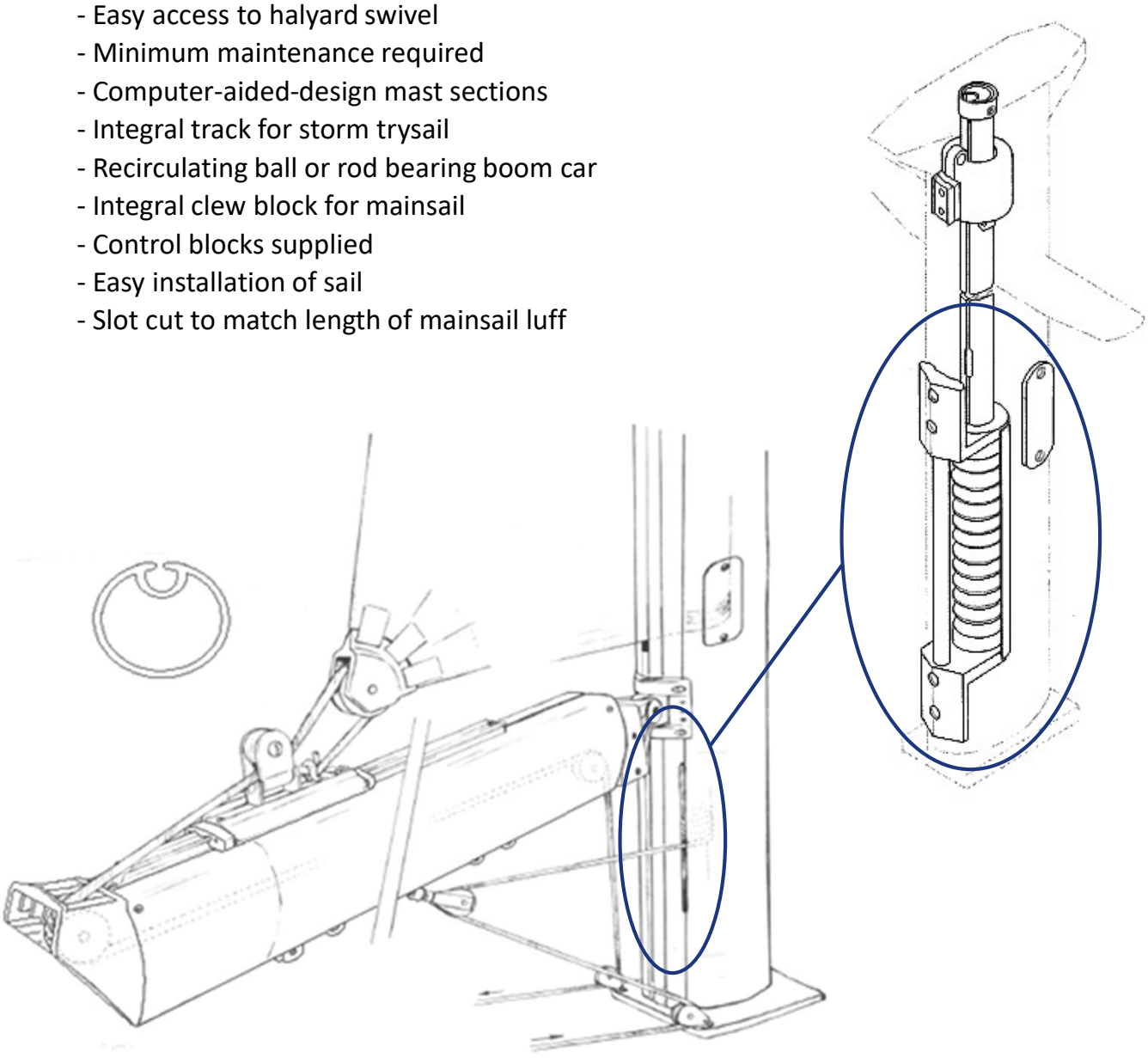
			
Part No	**3081**	**3080**	**3107**
Type	Headboard	Batten	Intermediate
Mast	Z602-902	Z602-902	Z602-902
			
Part No	**3086**	**3082**	**3108**
Type	Headboard	Batten	Intermediate
Track	Z1001/1250	Z1001/1250	Z1001/1250
Spare parts available – Please ask for details			

Furling Spars

For Easy Control of the Mainsail

Features:

- Removable helical drum furling mechanism
- Easy access to halyard swivel
- Minimum maintenance required
- Computer-aided-design mast sections
- Integral track for storm trysail
- Recirculating ball or rod bearing boom car
- Integral clew block for mainsail
- Control blocks supplied
- Easy installation of sail
- Slot cut to match length of mainsail luff

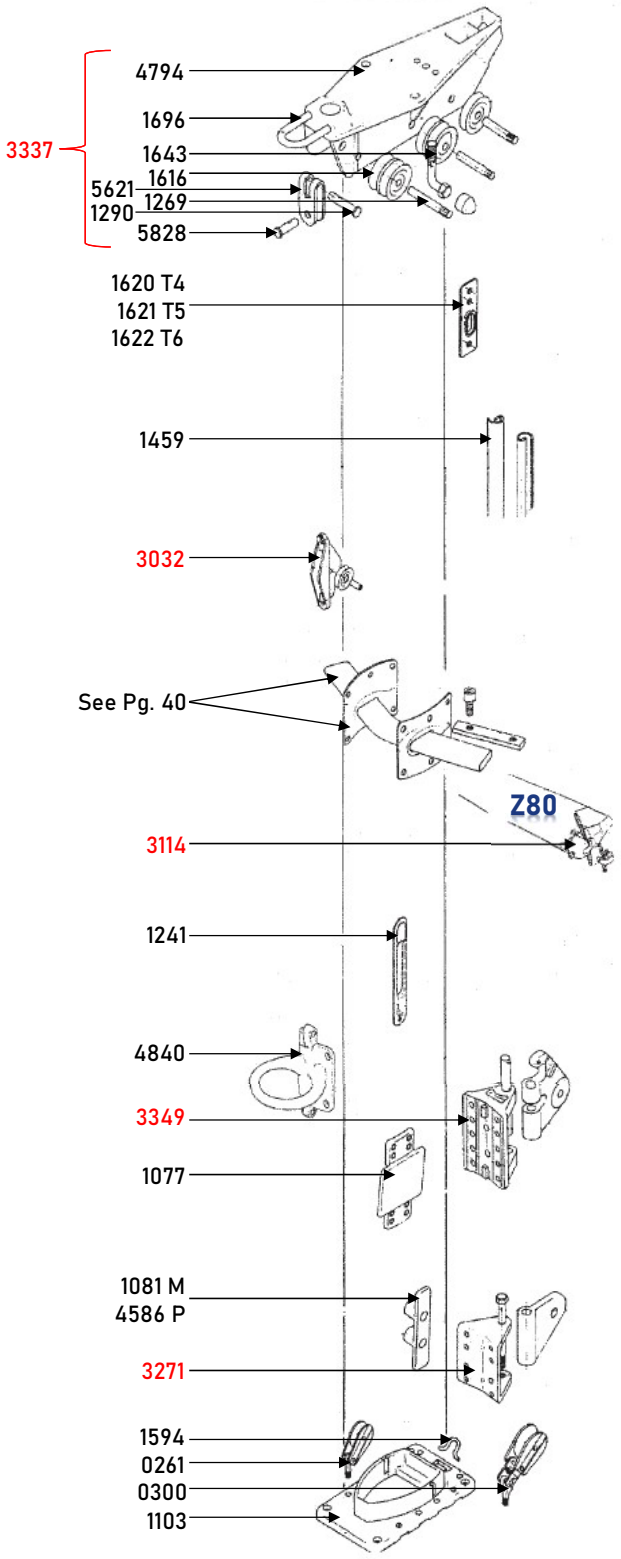


Note: Mainsail battens cannot be used

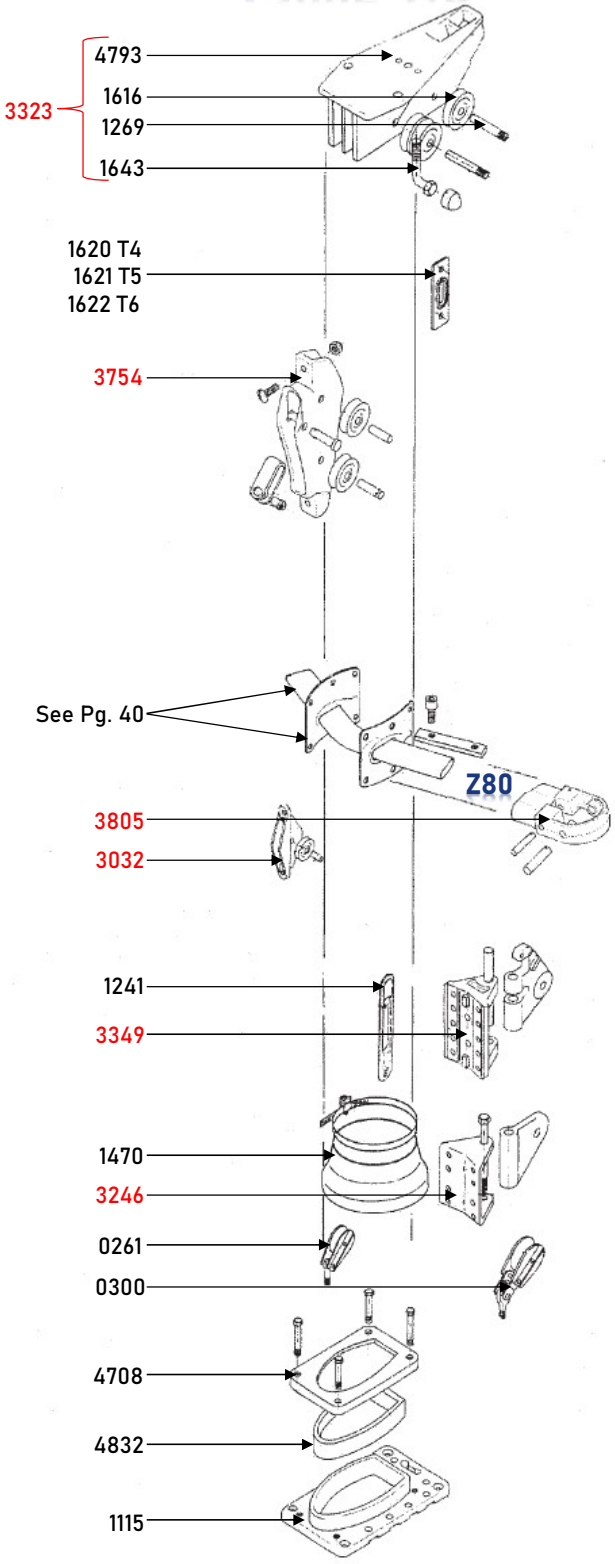
We reserve the right to change specification without notice

Mast Sections

Z300E



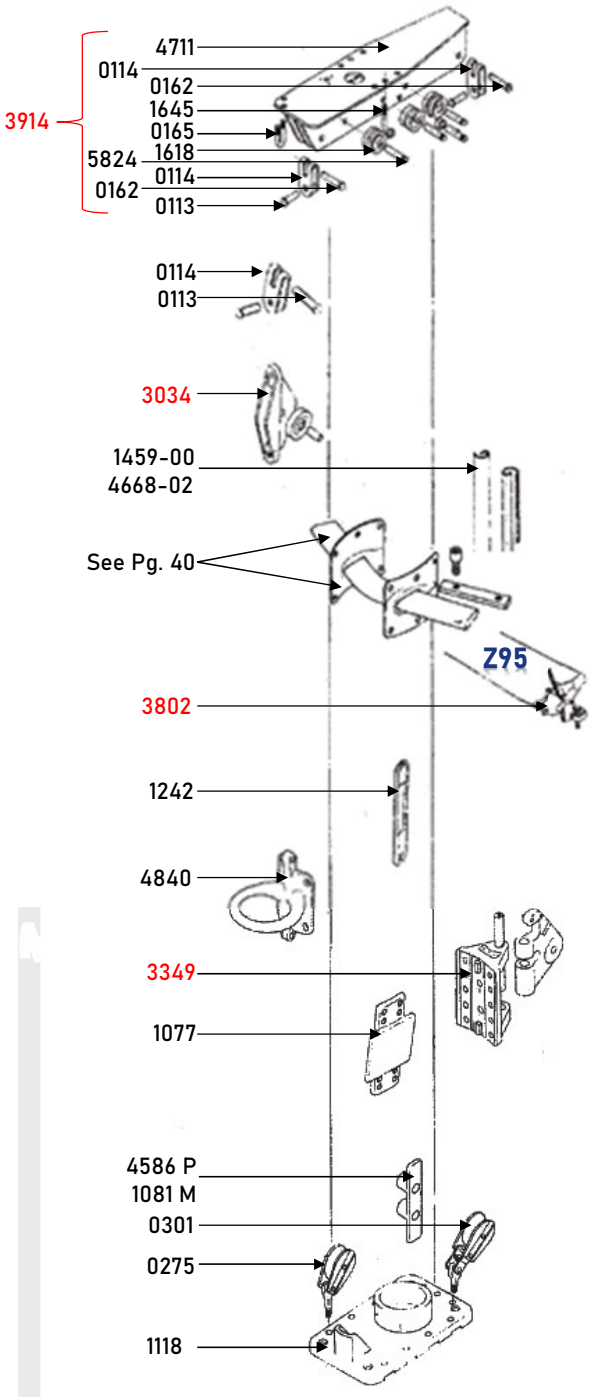
Z300E 7/8



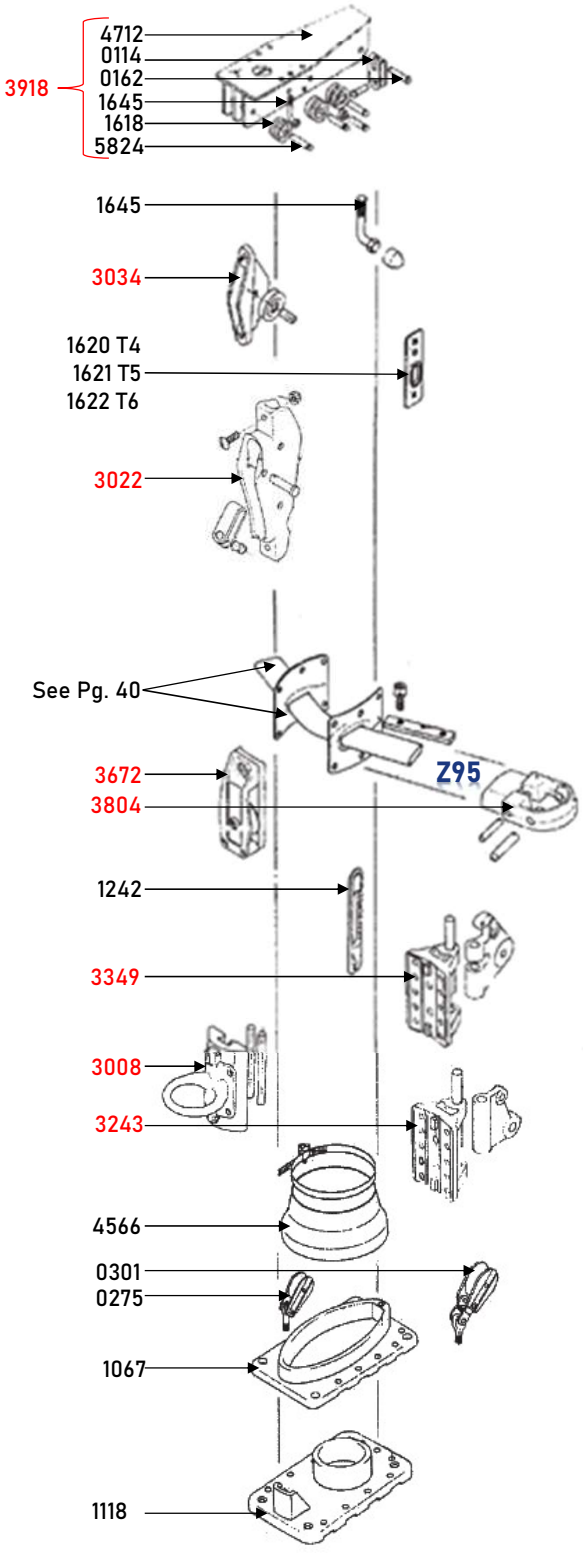
Red = Assembly P = Plastic M = Metal Ø = Diameter

Mast Sections

Z400E/Z402E



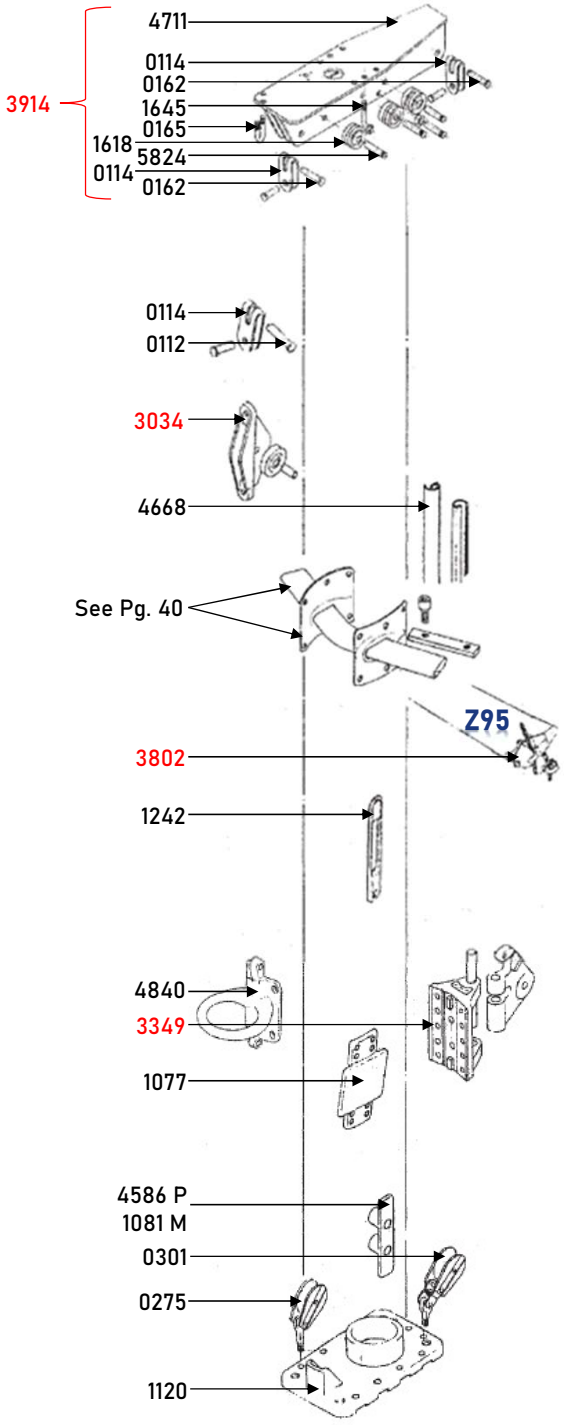
Z400E/Z402E 7/8



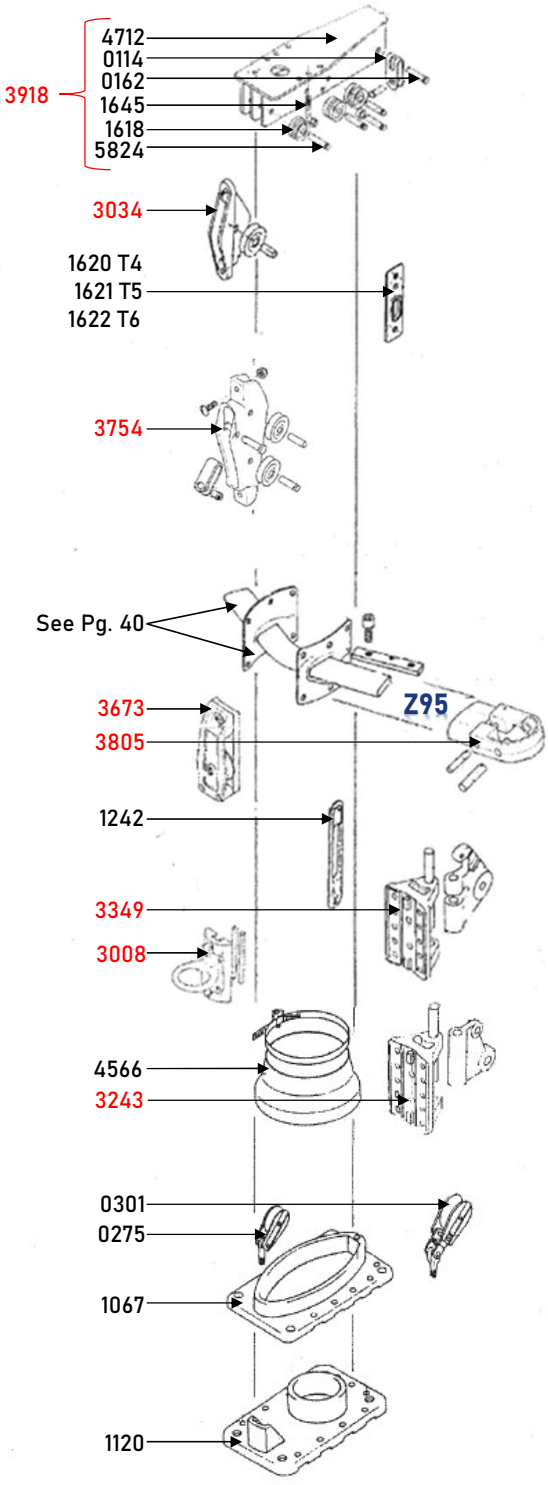
Red = Assembly P = Plastic M = Metal Ø = Diameter

Mast Sections

Z532E



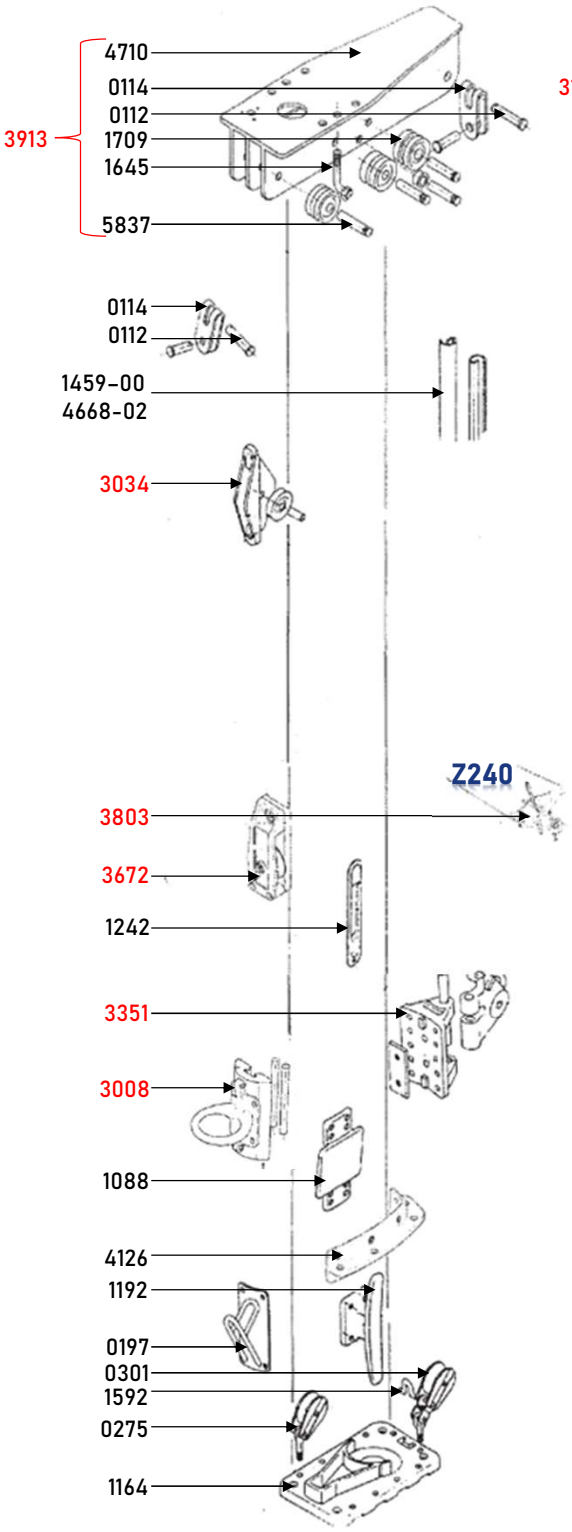
Z532E 7/8



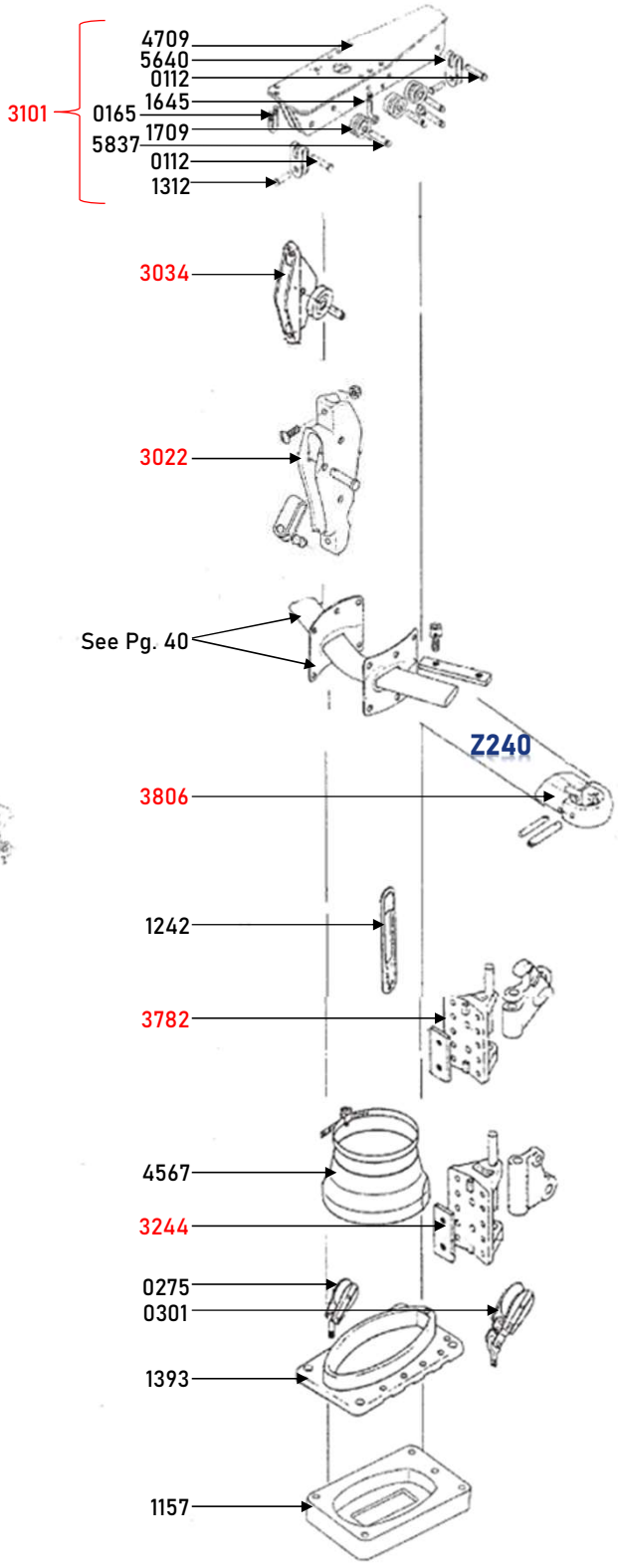
Red = Assembly P = Plastic M = Metal Ø = Diameter

Mast Sections

Z600E/Z602E



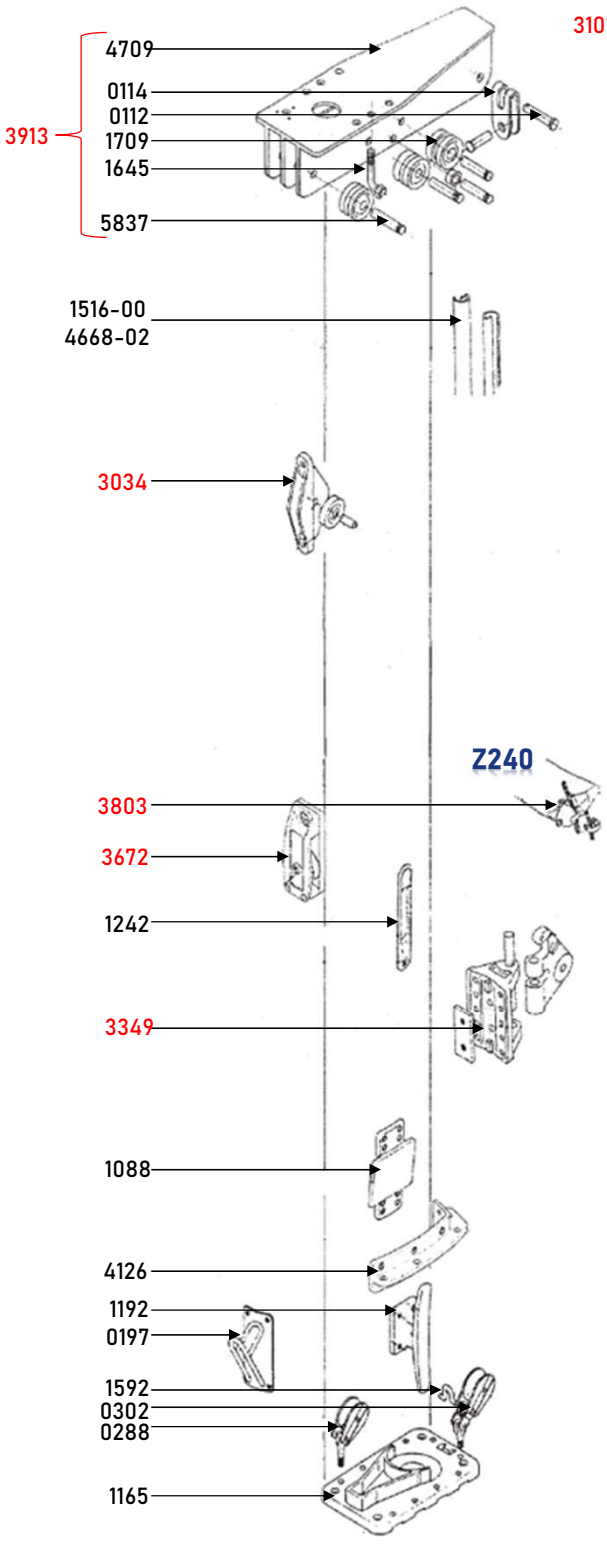
Z600E/Z602E 7/8



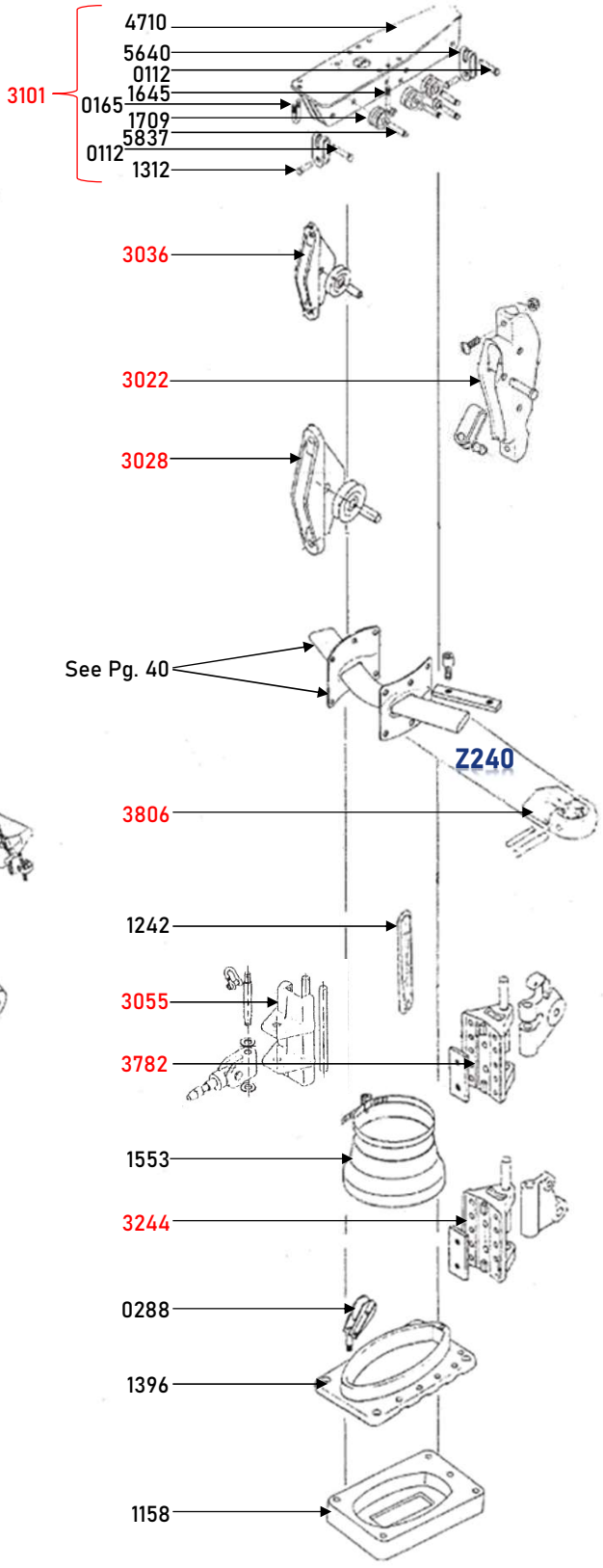
Red = Assembly P = Plastic M = Metal Ø = Diameter

Mast Sections

Z700E/Z702E



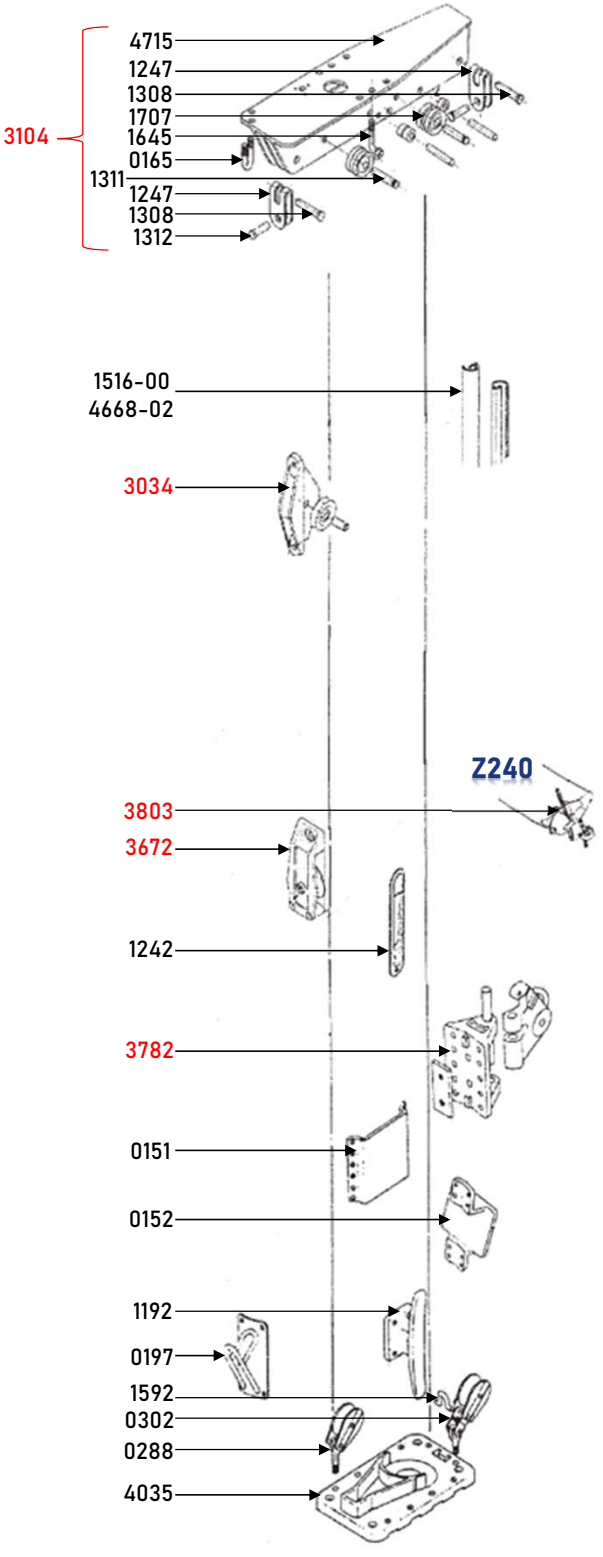
Z700E/Z702E 7/8



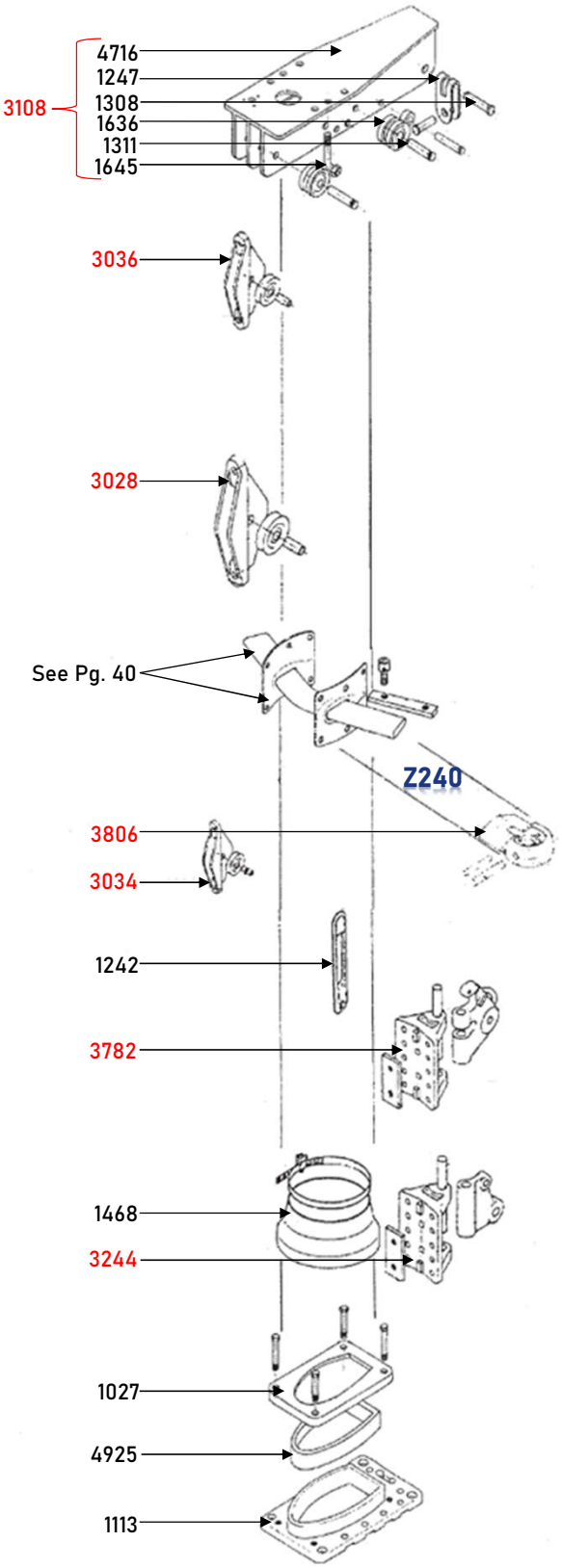
Red = Assembly P = Plastic M = Metal Ø = Diameter

Mast Sections

Z900E/Z902E



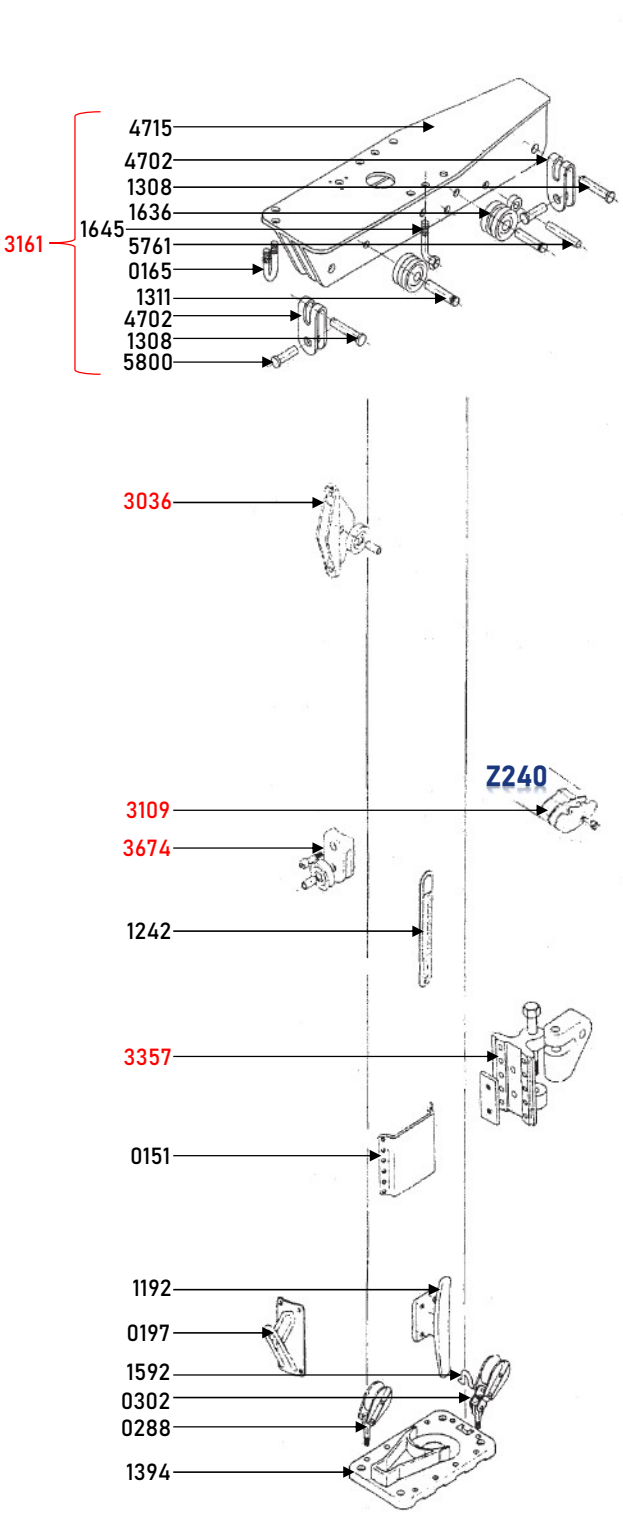
Z900E/Z902E 7/8



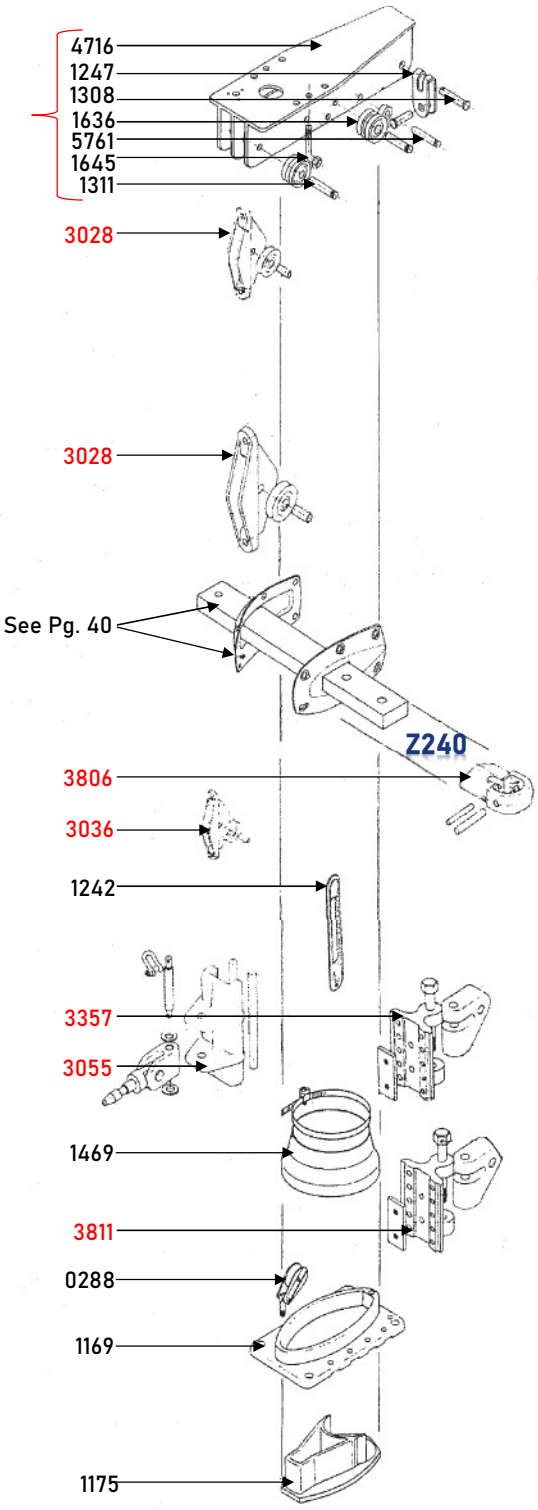
Red = Assembly P = Plastic M = Metal Ø = Diameter

Mast Sections

Z1100E



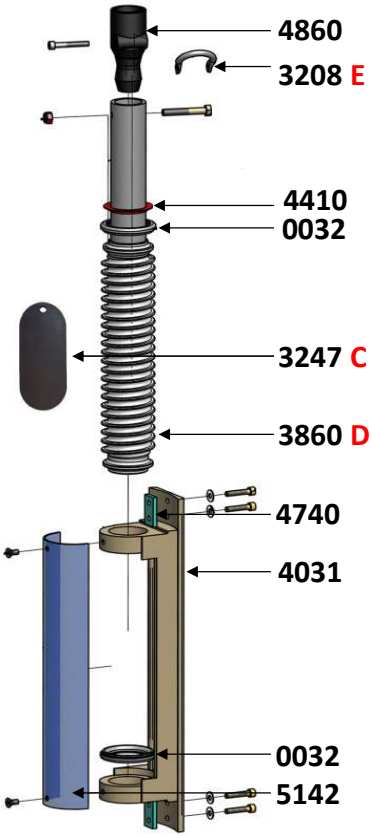
Z1100E 7/8



Red = Assembly P = Plastic M = Metal Ø = Diameter

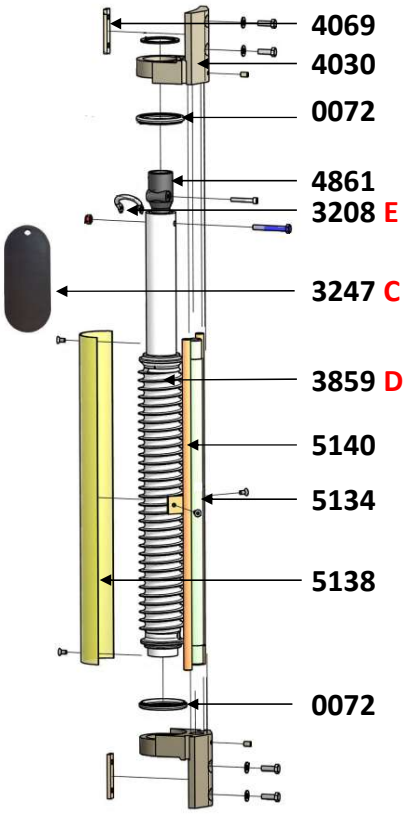
Furling Mechanisms

3626



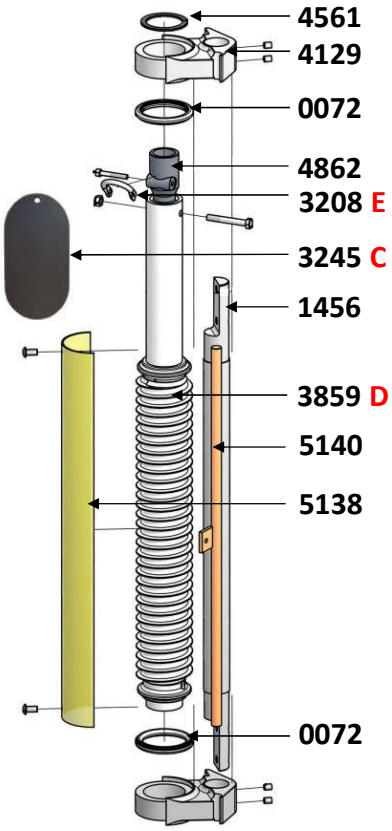
Z300E – Z532E

3627



Z600E – Z1100E

3367



Z1252E – Z1400E

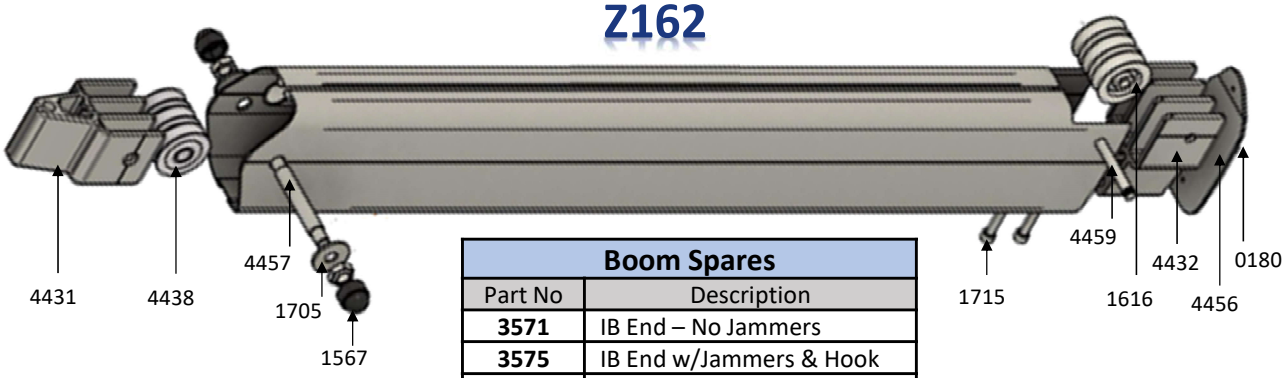
Halyard Swivels A

Z55 Furling Extrusion B

Section		Z300E	Z400E	Z500E	Z600E/ Z602E	Z700E/ Z702E	Z900E/ Z902E	Z1100E
Halyard Swivel	A	3504	3164	3164	3165	3165	3166	3159
Furling Extrusion	B	Z55	Z55	Z55	Z55	Z55	Z55	Z55
Maintenance Cap	C	3247	3247	3247	3245	3245	3245	3245
Furling Wormdrive	D	3860	3860	3860	3859	3859	3859	3859
Clew Shackle	E	3208	3208	3208	3208	3208	3208	3208
Halyard Shackle	F	3168	3168	3168	3168	3168	3168	1562
Complete Furling Unit		3626	3626	3626	3625	3625	3625	3625

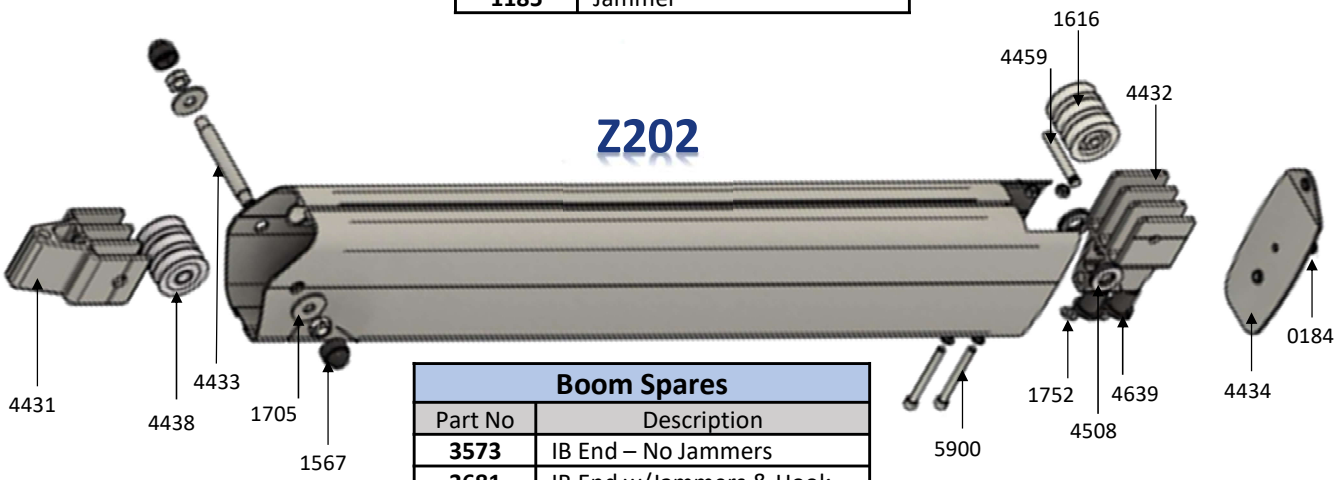
Current Boom Sections

Z162



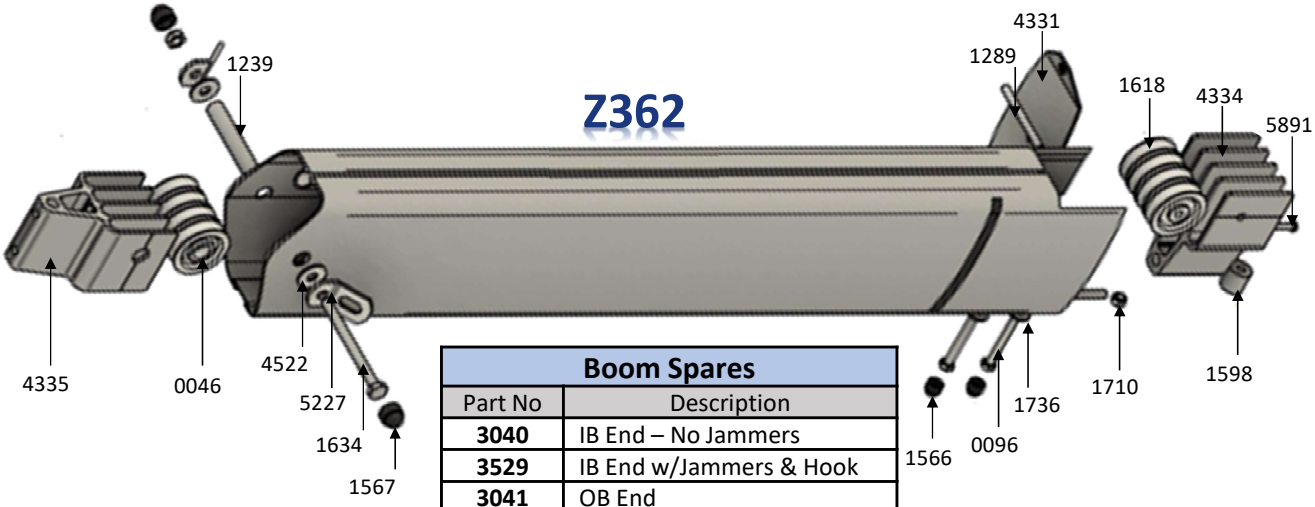
Boom Spares	
Part No	Description
3571	IB End – No Jammers
3575	IB End w/Jammers & Hook
3572	OB End
3044	Reef Slider
3484	Small Vang Tang
1185	Jammer

Z202



Boom Spares	
Part No	Description
3573	IB End – No Jammers
3681	IB End w/Jammers & Hook
3574	OB End
3044	Reef Slider
3484	Small Vang Tang
1186	Jammer

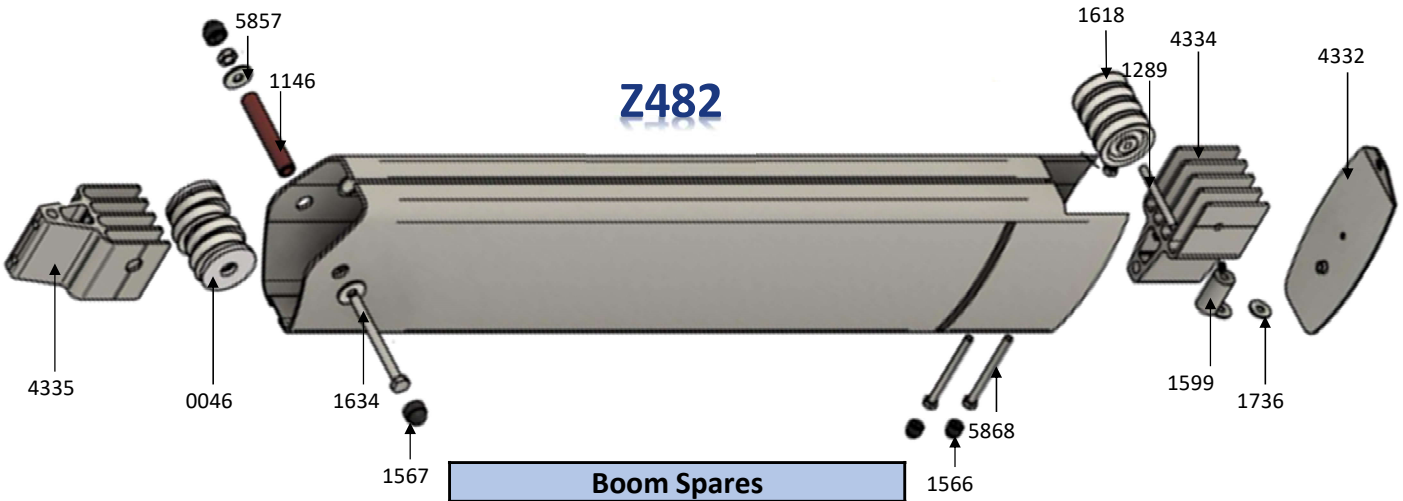
Z362



Boom Spares	
Part No	Description
3040	IB End – No Jammers
3529	IB End w/Jammers & Hook
3041	OB End
3045	Reef Slider
3651	Mainsheet Slider
3047	Medium Vang Tang
1076	Jammer

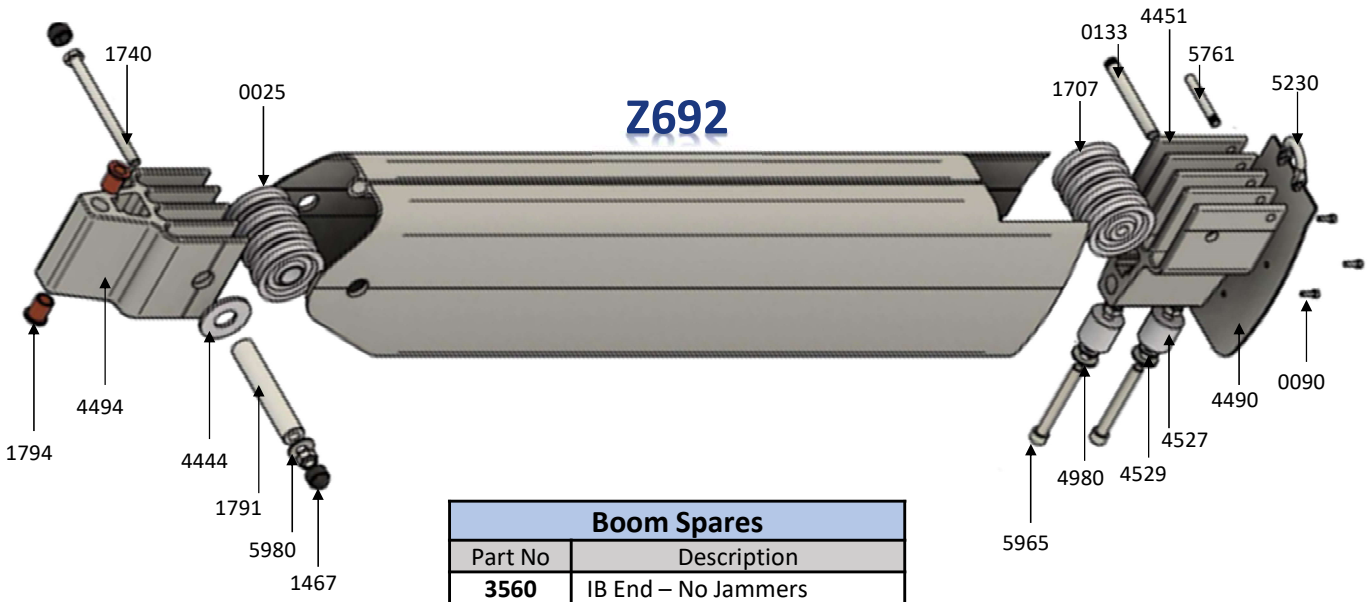
Current Boom Sections

Z482



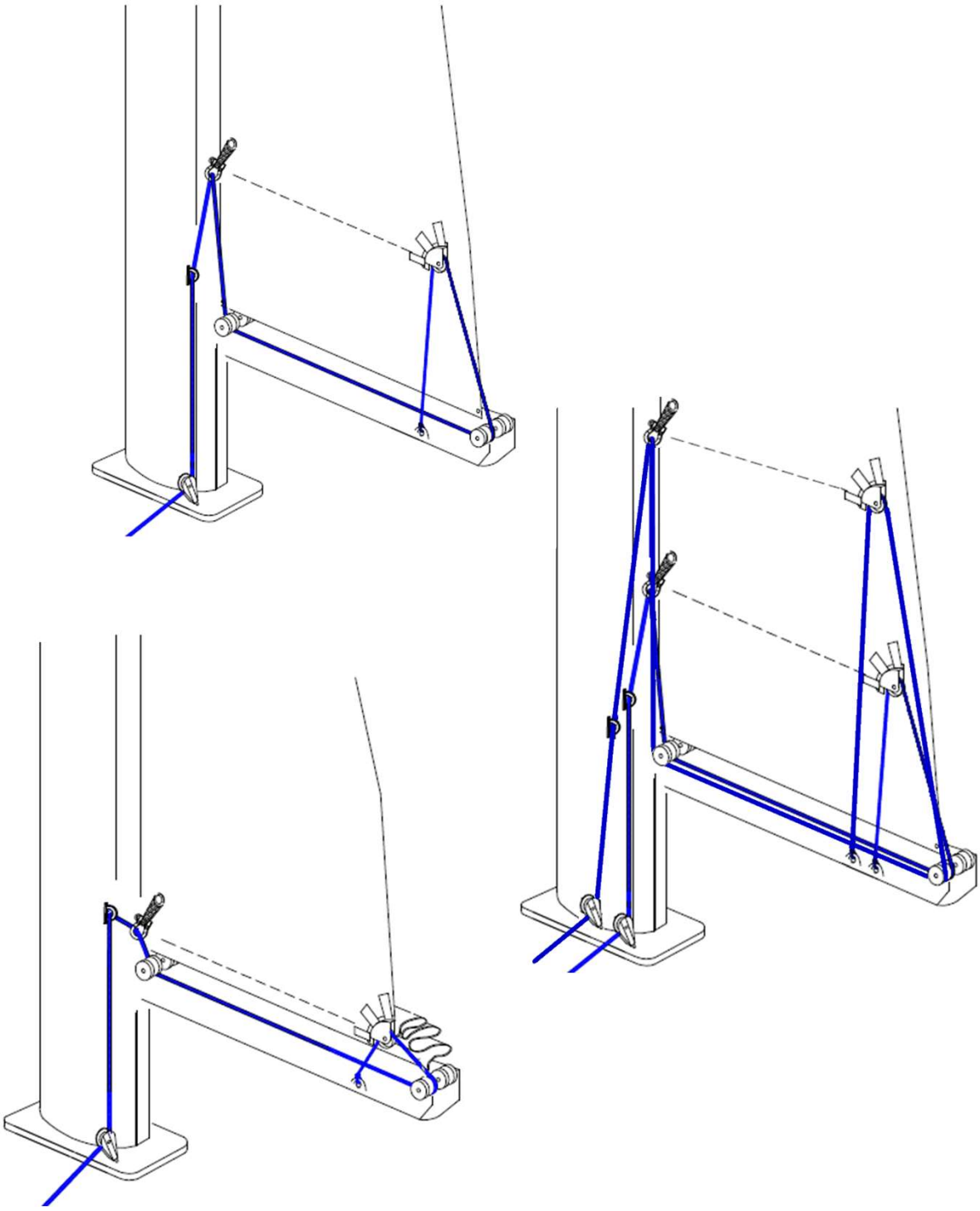
Boom Spares	
Part No	Description
3515	IB End – No Jammers
3530	IB End w/Jammers & Hook
3516	OB End
3045	Reef Slider
3651	Mainsheet Slider
3047	Medium Vang Tang
1076	Jammer

Z692



Boom Spares	
Part No	Description
3560	IB End – No Jammers
3613A	IB End w/Jammers & Hook
3554A	OB End
3455	Mainsheet/Reef Slider
3456	Large Vang Tang
1179	Jammer

Continuous Line Reefing



Continuous line reefing is available on all of our booms.

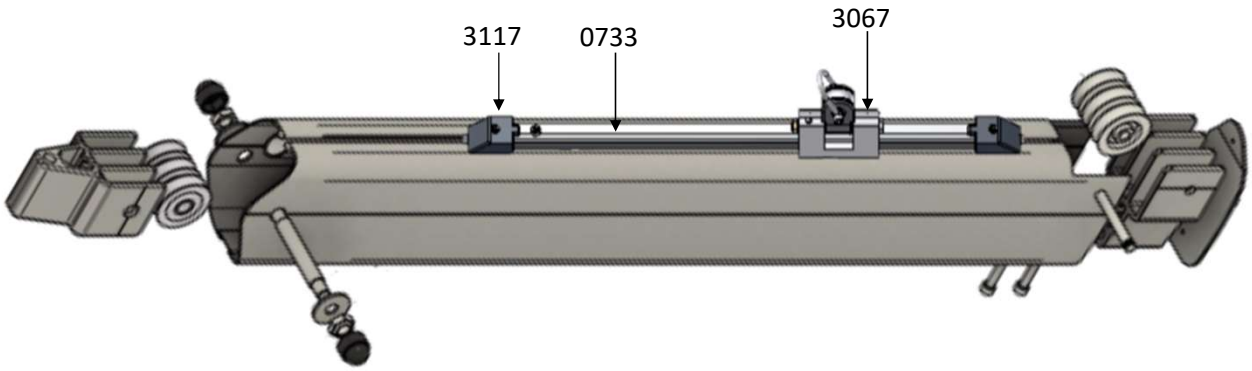
Please ask for details.

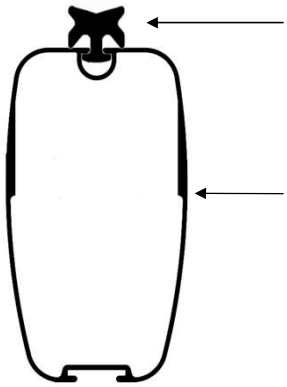
Furling Boom Sections

These booms are made specifically to accommodate our In-Mast Furling system.

For these booms we use our latest anodised sections as listed above and they are manufactured using the same processes as the standard boom sections.

The difference between a standard boom and a furling boom is the use of a 25mm track and outhaul car. The size of car depends on what boom section is being used.





Furling Boom Cars

Please see page 32 for more information about the above boom cars and their corresponding section.

Boom Cars & Sliders

Furling Boom Cars

Part No	**3074**	**3849**	**3067**
Type	Large	Medium	Small
Boom	Z362-692	Z362-482	Z162-362
Bearing Type	Rod	Rod	Ball or Rod

Spare parts available – Please ask for details

Boom Sliders & Vang Tangs

Part No	**3044**	**3045**
Type	Reef Slider	
Boom	Z160-Z202	Z360-Z482
Bail Dims	80 x 20mm	120 x 30mm
Omega Ø x W x Drop	6.5 x 47 x 33mm	8 x 70 x 33mm

Part No	**3651**	**3455**
Type	Mainsheet Slider	
Boom	Z360-Z482	Z690/692
Bail Dims	120 x 30mm	140 x 34mm
Omega Ø x W x Drop	8.5 x 40 x 47mm	9 x 41 x 53mm

Part No	**3484**	**3047**	**3456**
Type	Vang Tang		
Boom	Z160-Z202	Z360-Z482	Z690/692
Vang Size	Small	Medium	Large
Bail Dims	80 x 20mm	120 x 30mm	140 x 34mm
Tang Dims	21x35x11mm	40x38x12mm	42x55x23mm
Pin Size	10mm	10mm	12mm

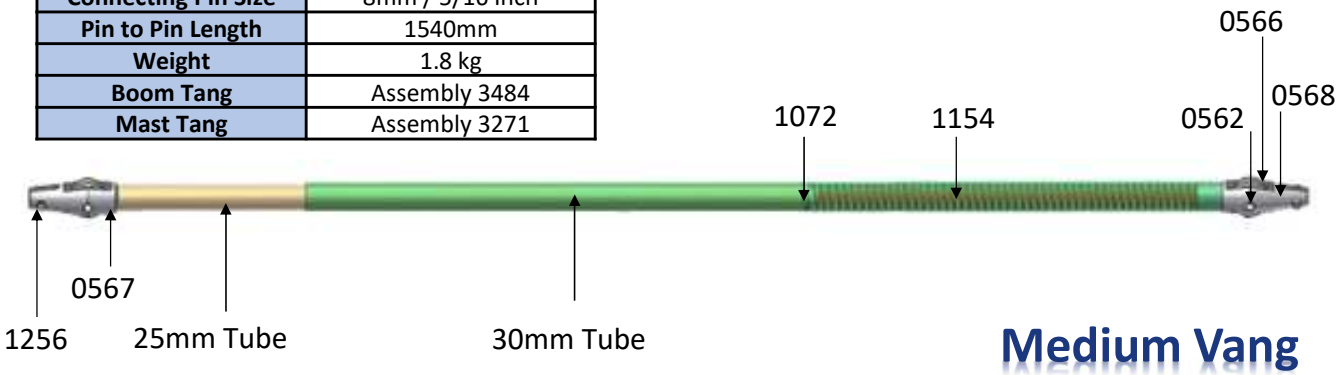
Rigid Vangs

All of our Rigid Vangs are supplied over length unless otherwise specified.

Spring length is 400mm in all sizes.

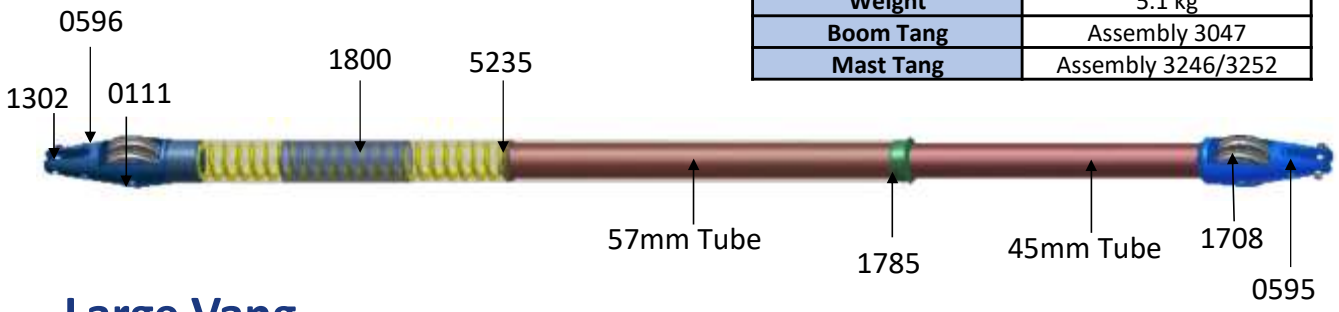
Small Vang

Vang Hold Load	100KG / 200LBS
Range of Vang	100mm / 4 Inches
Compatible With	Z162 & Z202
Fork Gap	7mm / 9/32 Inch
Connecting Pin Size	8mm / 5/16 Inch
Pin to Pin Length	1540mm
Weight	1.8 kg
Boom Tang	Assembly 3484
Mast Tang	Assembly 3271



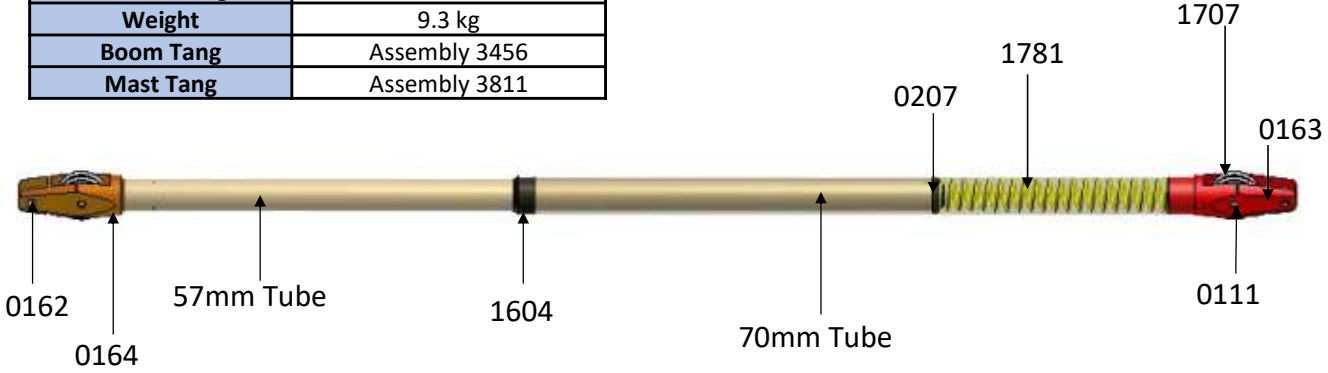
Medium Vang

Vang Hold Load	250KG / 551LBS
Range of Vang	180mm / 7 Inches
Compatible With	Z362 & Z482
Fork Gap	13mm / 1/2 Inch
Connecting Pin Size	10mm / 3/8 Inch
Pin to Pin Length	2040mm
Weight	5.1 kg
Boom Tang	Assembly 3047
Mast Tang	Assembly 3246/3252



Large Vang

Vang Hold Load	500KG / 1000LBS
Range of Vang	150mm / 6 Inches
Compatible With	Z482 & Z692
Fork Gap	28mm / 1 Inch
Connecting Pin Size	12mm / 1/2 Inch
Pin to Pin Length	2240mm
Weight	9.3 kg
Boom Tang	Assembly 3456
Mast Tang	Assembly 3811



Rigid Vang Installation

The optimum angle for the vang is approximately 30° to the horizontal. If the distance of the boom tang aft of the mast is 1.75 times the distance from the mast tang to the top of the boom, this is about the correct angle. At this angle, the overall length of the uncompressed vang should be approximately 2.1 times the distance from the mast tang to the top of the boom.

The mast attachment is best located as close to the deck as possible. We suggest 80mm from the deck to underside of the bracket.

INTIAL SETUP:

1. Fix the mast bracket on the mast.
2. Slide the boom bracket onto the underside track on the boom, but do not fit is permanently. (Note: the forward boom end fitting must be removed to insert the boom bracket in the track). Temporarily locate the boom bracket aft of the mast at 1.75 x the distance from the mast bracket to the top of boom; hold it in place by, for example, tying a piece of line around the mast and onto the bracket.
3. With a boom topping lift used to raise the boom, attach the vang to the two brackets. The vang should be installed with the larger tube uppermost – otherwise water will accumulate around the stainless spring and corrosion of the alloy tube will result.
4. With the mainsail installed on the boom, release the topping lift. With no tension on the vang rope, check the boom angle: it should be a little above horizontal. You can adjust the boom bracket fore and aft to increase or decrease the 'lift' of the boom. If the boom bracket needs to move more than 200mm forward, then the vang is too short – get a longer vang from Z Spars. If the bracket needs to move more than 200mm aft, then the vang is too long – shorten the vang as described below.
5. Once you are happy that the vang is supporting the boom plus mainsail above horizontal, pull the boom down with the mainsheet as far as it will go. The vang is now fully compressed, and the boom should be about 4 degrees below horizontal (i.e. outboard end of boom about 70mm below horizontal for every 1 metre of boom length). If the vang is fully compressed before this angle is reached, then move the boom bracket aft a little, and go back to step 4. If the boom is then below horizontal, the movement range of the vang is inadequate: get an additional half spring from Z Spars and install it in the vang. This will provide additional power and range of movement in the vang.
6. Once you have achieved the required vang length and angle, fix the boom fitting permanently (or you may wish to go sailing with the bracket fixed temporarily, before final positioning).
7. The vang comes with a built-in 5:1 purchase: the rope must exit the final sheave at the boom end and run back to a block at the mast base, then go back to the cockpit. Fitting a 2:1 purchase on the rope tail (e.g. by fitting a single block on the vang rope tail, and a single and becket block at the mast base) will double the final purchase to 10:1.
8. When the vessel is at moorings, then the vang rope can be released and the boom topping lift can be used to raise the boom well above horizontal (but not so far that the vang tubes disengage!)
9. If you have any questions regarding the installation of your Z Spars vang, please contact us – details below.

TO SHORTEN THE VANG LENGTH: shorten the smaller tube ONLY. Remove the rope tackle and pull apart the two tubes. Remove the plastic bush from the end of the smaller tube (push fit) and cut the smaller tube to the required length. Reassemble.

MAINTENCE: Rinse occasionally with fresh water (e.g. at end of season).

Spinnaker Poles – Piston to Piston

Pole Ref	Pole OD	Pole ID	Wall Thickness	Max Tube Length	Pole Length	Weight KG
Ø 45	45mm	41mm	2mm	2300mm	2470mm	3.64
Ø 50	50mm	46mm	2mm	2900mm	3070mm	4.55
Ø 57	57mm	52.8mm	2.1mm	3500mm	3670mm	5
Ø 70	70mm	65mm	2.5mm	4500mm	4730mm	6.37
Ø 80	80mm	76mm	2mm	6000mm	6230mm	7.37
Ø 100	100mm	94mm	3mm	6000mm	6245mm	10

Spinnaker Poles – Cone to Piston

Pole Ref	Pole OD	Pole ID	Wall Thickness	Max Tube Length	Pole Length	Weight KG
Ø 80	80mm	76mm	2mm	6000mm	6215mm	7.37
Ø 100	100mm	94mm	3mm	6000mm	6245mm	10

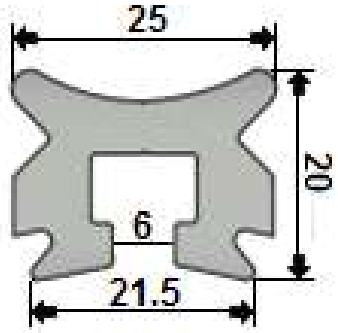
Tube Size	Part No
Ø 45	**3148**
Ø 50	**3150**
Ø 57	**3151**
Ø 70	**3153**
Ø 80	**3154**
Ø 100	**3155**

Tube Size	Part No
Ø 80	**3442**
Ø 100	**3443**

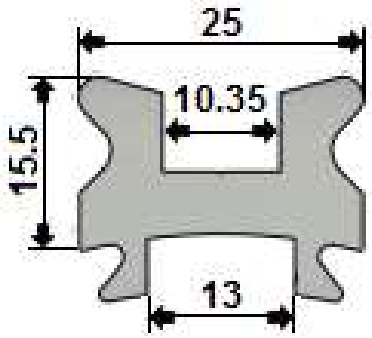
Spinnaker VPS Track Kits

01 Series 25mm		
Part No	**Description**	**Quantity**
0731	Spin Track 01 Series	3.5 M
3675	End Stop with Sheave	2
1662	Clam Cleat	2
3117	Track End	2
0308	Control Line	1
0197	Stowage Bracket	1
2 Car Options:		
3055	Finger & Toggle	1
3008	Car Ring	1

No 0731
01 Series Track



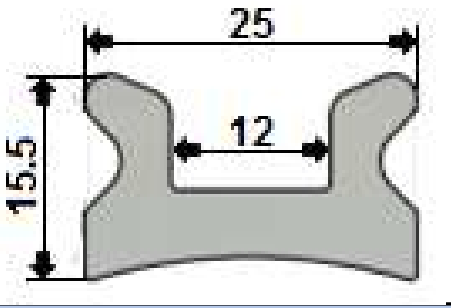
No 0666
02 Series Track



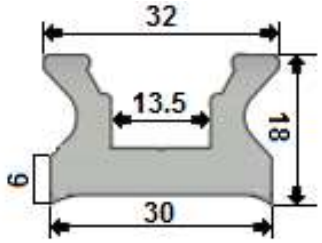
02 Series 25mm		
Part No	**Description**	**Quantity**
0666	Spin Track 02 Series	3.5 M
3674	End Stop with Sheave	2
1662	Clam Cleat	2
3117	Track End	2
0308	Control Line	1
0197	Stowage Bracket	1
2 Car Options:		
3055	Finger & Toggle	1
3008	Car Ring	1

Rivet On 25mm		
Part No	**Description**	**Quantity**
0931	Spin Track Rivet On	3.5 M
3674	End Stop with Sheave	2
1662	Clam Cleat	2
3117	Track End	2
0308	Control Line	1
0197	Stowage Bracket	1
2 Car Options:		
3055	Finger & Toggle	1
3008	Car Ring	1

No 0931
25mm Rivet on Track

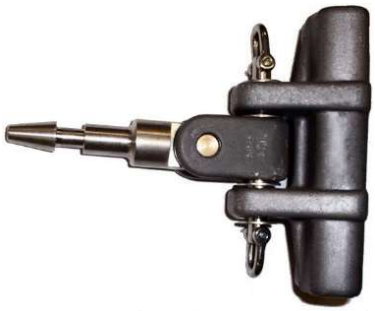


No 0943
32mm Rivet on Track



Rivet On 32mm		
Part No	**Description**	**Quantity**
0994	Spin Track Rivet On	3.5 M
3674	End Stop with Sheave	2
1662	Clam Cleat	2
3117	Track End	2
0308	Control Line	1
0197	Stowage Bracket	1
3055	Finger & Toggle	1

Spinnaker Pole Accessories

Spinnaker Pole Cars		
	Part No	**3008**
	Pole End Type	Piston
	Track Size	25mm
	Ring ID	45mm
	Material	Extruded Alloy Car w/Stainless Steel Ring
	Bearing Type	Rod Bearings
	Part No	**3055**
	Pole End Type	Cone
	Track Size	25mm & 32mm
	Finger Ø	15mm
	Material	Cast Alloy Car w/Stainless Steel Finger
	Bearing Type	Rod Bearings
Spinnaker Pole Mast Rings		
	Part No	**1452**
	Mast	Z145 - Z190
	Ring ID	35mm
	Material	Stainless Steel
	Part No	**3003 / Halyard Diverter**
	Mast	Z230 - 265
	Ring ID	45 x 29mm
	Material	Stainless Steel
	Part No	**4840**
	Mast	Z351 +
	Ring ID	45mm
	Material	Stainless Steel
Spinnaker Pole Stowage Bracket		
	Part No	**0197**
	H x D x W	120 x 105 x 56mm
	Ring ID	35mm
	Material	Stainless Steel

Mastheads

Standard Mastheads

	Part No	**1001**		Part No	**1003**
	Mast	Z170-230		Mast	Z300E
	Material	Ex. Alu		Material	Cast Alu
	Part No	**1007**		Part No	**4711P**
	Mast	Z265-351		Section	Z401-531
	Material	Cast Alu		Material	Ex. Alu
	Part No	**4709P**		Part No	**4715P**
	Mast	Z602-702		Mast	Z901-1001
	Material	Ex. Alu		Material	Ex. Alu

Tapered Mastheads

	Part No	**1002**		Part No	**1010**
	Mast	Z145 & 230		Mast	Z170-190
	Material	Cast Alu.		Material	Ex. Alu.
	Part No	**1017**		Part No	**1028**
	Mast	Z265		Mast	Z351-531
	Material	Cast Alu.		Material	Cast Alu.
	Part No	**1023**	Cast Alu. = Cast Aluminium Ex. Alu. = Extruded Aluminium		
	Mast	Z602			
	Material	Cast Alu.			

7/8 Fractional Mastheads

	Part No	**1013**		Part No	**1011**
	Mast	Z145		Mast	Z170
	Material	Cast Alu.		Material	Cast Alu.
	Part No	**1012**		Part No	**1014**
	Mast	Z190		Section	Z230
	Material	Cast Alu.		Material	Cast Alu.

Mastheads

7/8 Fractional Mastheads					
	Part No	**1015**		Part No	**1004**
	Mast	Z265		Mast	Z300E
	Material	Cast Alu.		Material	Cast Alu.
	Part No	**1008**		Part No	**4712P**
	Mast	Z351		Section	Z401-531
	Material	Cast Alu.		Material	Cast Alu.
	Part No	**4710P**		Part No	**4716P**
	Mast	Z602-702		Mast	Z901-1001
	Material	Ex. Alu.		Material	Ex. Alu.

Combi & Forestay Boxes

Triple Combi Boxes – Genoa & Spinnaker Halyard with Forestay

Part No	**3283**
Mast	Z190
Max Rope Ø	8mm
Forestay Pin Ø	8mm
Mast Cut Out Dims	96 x 18

Part No	**3754**
Mast	Z230/265
Max Rope Ø	10mm
Forestay Pin Ø	10mm
Mast Cut Out Dims	160 x 25

Part No	**3809**
Mast	Z351-531
Max Rope Ø	12mm
Forestay Pin Ø	12mm
Mast Cut Out Dims	160 x 30

Part No	**3334**
Mast	Z601-1001
Max Rope Ø	14mm
Forestay Pin Ø	14mm
Mast Cut Out Dims	122 x 60

Forestay Tangs

Part No	**3022**
Mast	Z351-601
Forestay Pin Ø	14mm
Forestay Wire Ø	6-8mm
Mast Cut Out Dims	66 x 32

Part No	**3653**
Mast	Z701-1001
Forestay Pin Ø	20mm
Forestay Wire Ø	10-12mm
Mast Cut Out Dims	90 x 58

Part No	**3898**
Mast	Z601-701
Forestay Pin Ø	16mm
Forestay Wire Ø	10-12mm
Mast Cut Out Dims	90 x 60

Part No	**4090**
Mast	Z170-351
Tang Ø	10mm
Forestay Wire Ø	10-12mm
Rivet Hole Dist.	114/15

Diverter Attachments

Part No	**6333**	**0535**	**0553**
Screw Size	M6	M8	M10
Ring Ø	5mm	8mm	10mm
OD / ID	26mm / 16mm	35mm / 20mm	45mm / 25mm

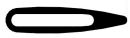
Sheave Boxes

Cast Sheave Boxes				
	Part No	**3030**	**3033**	**3882**
	Sheave Ø	22mm	28mm	40mm
	Sheave Type	Aluminium		
	Max Rope Ø	5mm	8mm	10mm
	Rivet Hole Dist.	55mm	62mm	89mm
	Part No	**3036**		
	Sheave Ø	60mm		
	Sheave Type	Delrin		
	Max Rope Ø	14mm		
	Rivet Hole Dist.	115mm		
	Part No	**3028A**	**3890**	
	Sheave Ø	80mm	110mm	
	Sheave Type	Delrin		
	Max Rope Ø	14mm	14mm	
	Rivet Hole Dist.	158mm	205mm	
Plastic Sheave Boxes				
	Part No	**3032**	**3034**	**3219**
	Sheave Ø	28mm	45mm	60mm
	Sheave Type	Delrin		
	Max Rope Ø	8mm	10mm	14mm
	Rivet Hole Dist.	61mm	92mm	113mm

Sheaves

Delrin Sheaves	Part No	Size Ø x W x Pin	Max Rope Ø
	**0566**	28 x 6.5 x 5	6mm
	1614	28 x 9.5 x 6	8mm
	1617	35 x 16 x 8	14mm
	1616	45 x 13 x 8	10mm
	0046	60 x 15 x 17	14mm
	1618	60 x 16 x 8	14mm
	1709	70 x 16 x 10	14mm
	1708	70 x 16 x 14	14mm
	1707	80 x 17 x 14	14mm
	1636	110 x 19 x 14	14mm
Aluminium Sheaves	Part No	Size Ø x W x Pin	Max Rope Ø
	**1611**	28 x 9.5 x 6	8mm
	1246	35 x 16 x 8	14mm
	1728	45 x 13 x 8	10mm
	1245	50 x 15 x 14	12mm
	1767	60 x 16 x 8	14mm
	6001	60 x 16 x 8	14mm
	1248	70 x 16 x 14	14mm
	1249	80 x 17 x 14	14mm
	6057	100 x 19 x 16	16mm
Delrin Ball Bearing Sheave	Part No	Size Ø x W x Pin	Max Rope Ø
	**1619**	60 x 16 x 8	14mm
	Recommended for use within our boom outboard end only and is not recommended for use within the mast head.		

Spreader Sections

Profiles		Dimensions mm	Weight KG/Metre
	**Z DER**	44 x 9	0.4
	**Z 65**	56 x 21	0.5
	**Z 60**	55 x 20	0.5
	**Z 80**	56 x 25	0.8
	**Z 95**	80 x 25	1.25
	**Z 240**	130 x 40	2.4
	**Z 341**	155 x 49	3.4

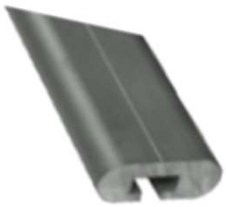
Spreader Tip Information

		Spreader Tip		Discontinuous Spreader Tip		
Spreader	Style	Part No	Material	Part No	D2 Pin Ø	V1 Pin Ø
Z Der	Taper	**3112**	Aluminium	N/A		
Z 60	Taper	**3113**	Delrin	**3527**	6mm	8mm
Z 65	Taper	**3114**	Delrin	**3538**	6mm	8mm
Z 80	Taper	**3114**	Delrin	**3500**	8mm	10mm
	No Taper	**3802**	Delrin	**3805**	8mm	12mm
Z 95	Taper	**3114**	Delrin	**3500**	8mm	10mm
				3110	8mm	12mm
	No Taper	**3802**	Delrin	**3804**	8mm	10mm
				3805	8mm	12mm
Z 240	Taper	**3115**	Delrin	**3378**	12mm	16mm
		3109	Aluminium	**3147**	12mm	19mm
	No Taper	**3803**	Delrin	**3806**	12mm	16mm
		3822	Aluminium	**3807**	12mm	19mm
Z 341	Taper		Aluminium			

Spreader Mounting Hardware

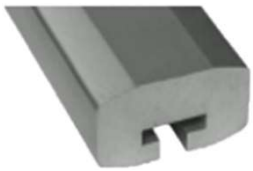
Thru Bar

Z65/Z80/Z95



PN	Angle
5095	0°
5088	5°
5089	10°
5090	15°
5091	20°
5093	25°
5092	30°

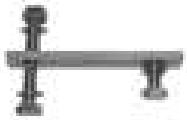
Z240



PN	Angle
5040	0°
5041	10°
5042	15°
5043	20°
5044	25°
5081	30°

Reinforcement Plate

Part No
0053



Part No
4905

Base Plate

Part No	Angle	Mast
5096	0°-15°	Z265/351
5085	20°-30°	Z265/351
5097	0°-15°	Z401-501
5086	20°-30°	Z401-501
5098	0°-15°	Z531/532
5087	20°-30°	Z531/532
5106	25°	Z531/532

Part No	Angle	Mast
5312	20°	Z502
4911	0°-15°	Z601-902
5244	20°	Z601-902
4912	20°-30°	Z601-902
4913	0°-15°	Z1001/ 1002
4914	20°-30°	Z1001/ 1002

Wrap Brackets

Part No	Mast
4052	Z145

Part No	Mast
4118	Z170

Part No	Mast
4130	Z190

Part No	Mast
4131	Z230

Spreader Tips

Continuous Tips					
	Part No	**3112**		Part No	**3113**
	Section	Z Dinghy		Section	Z60
	Type	No Taper		Type	No Taper
	Part No	**3114**		Part No	**3802**
	Section	Z65/80/95		Section	Z65/80/95
	Type	Tapered		Type	No Taper
	Part No	**3115**		Part No	**3803**
	Section	Z240		Section	Z240
	Type	Tapered		Type	No Taper
Discontinuous Tips					
	Part No	**3527**		Part No	**3538**
	Section	Z60		Section	Z65/80
	Type	No Taper		Type	No Taper
	Pin Ø	6/8mm		Pin Ø	6/8mm
	Part No	**3500**		Part No	**3110**
	Section	Z65/80/95		Section	Z65/80/95
	Type	Taper		Type	Tapered
	Pin Ø	8/10mm		Pin Ø	8/12mm
	Part No	**3804**		Part No	**3805**
	Section	Z95		Section	Z95
	Type	No Taper		Type	No Taper
	Pin Ø	8/10mm		Pin Ø	8/12mm

Spreader Tips

Discontinuous Tips Continued					
	Part No	**3147**		Part No	**3378**
	Section	Z240		Section	Z240
	Type	Tapered		Type	Tapered
	Pin Ø	12/19mm		Pin Ø	12/16mm
	Part No	**3806**		Part No	**3807**
	Section	Z240		Section	Z240
	Type	No Taper		Type	No Taper
	Pin Ø	12/16mm		Pin Ø	12/19mm

Winch Pads

Lateral Winch Pads					
	Part No	**1086**		Part No	**1077**
	Mast	Z145-230		Mast	Z265-500E
	Face Dims	90 x 90		Face Dims	120 x 120
	Material	Cast Alu.		Material	12/16mm
	Part No	**1088**		Part No	**0151**
	Mast	Z601-902		Mast	Z901-1100E
	Face Dims	140 x 140		Face Dims	200 x 195
	Material	Cast Alu.		Material	Ex. Alu.
Aft Winch Pads					
	Part No	**1082**		Part No	**1087**
	Mast	Z265-500E		Mast	Z601-702
	Face Dims	95 x 95		Face Dims	120 x 120
	Material	Cast Alu.		Material	Cast Alu.
	Part No	**0152**	Cast Alu. = Cast Aluminium Ex. Alu. = Extruded Aluminium		
	Mast	Z901-900E			
	Face Dims	160 x 160			
	Material	Ex. Alu			

Gooseneck & Vang Tang Assemblies

Standard Mast Gooseneck Assemblies

	Part No	**3355**		Part No	**6017**
	Mast	Z145-351		Mast	Z401-702
	Boom	Z160/204		Boom	Z360
	Part No	**3783**		Part No	**3783**
	Mast	Z601-701		Mast	Z601-Z701
	Boom	Z480		Boom	Z480
	**Part No**	**3794**		**Part No**	**3410**
	Mast	Z901-1001		Mast	Z145-351
	Boom	Z690		Boom	Z162/202
	Part No	**3051A**		Part No	**3791**
	Mast	Z401-532		Mast	Z532-902
	Boom	Z362		Boom	Z362-482
	Part No	**3010**	**Assemblies with toggles are for use with our discontinued boom sections Z160 - Z690.** **Assemblies without toggles are for use with our current boom sections Z162 - Z692**		
	Mast	Z602-902			
	Boom	Z362-482			

Furling Mast Gooseneck Assemblies

	Part No	**3349**		Part No	**3349**
	Mast	Z300E-500E		Mast	Z300E -500E
	Boom	Z204E-360E		Boom	Z204E-Z360E

Gooseneck & Vang Tang Assemblies

Furling Mast Gooseneck Assemblies

	Part No	**3782**		Part No	**3357**
	Mast	Z600E-900E		Mast	Z1100E
	Boom	Z480E		Boom	Z690E
	Part No	**RHP3010**	**Assemblies with toggles are for use with our discontinued boom sections Z160E - Z690E.** **Assemblies without toggles are for use with our current boom sections Z162E - Z692E**		
	Mast	Z1100E			
	Boom	Z692E			

Vang Tang Assemblies

	Part No	**3271**		Part No	**3246**
	Mast	Z145-265		Mast	Z145-351
	Vang	Small		Vang	Medium
	Part No	**3243**		Part No	**3252**
	Mast	Z300E-500E		Mast	Z401-701
	Vang	Medium		Vang	Medium
	Part No	**3838**		Part No	**3244**
	Mast	Z532-902		Mast	Z600E-900E
	Vang	Medium/ Large		Vang	Medium
	Part No	**3811**		Part No	**3256**
	Mast	Z701-902E		Mast	Z1001-1100E
	Vang	Large		Vang	Large

Vang & Gooseneck Toggles

Vang Toggles

	Part No	**0561**		Part No	**0560**
	Mast Base	Z145-230		Mast	Z145-230
	Vang	Small		Vang	Small
	Assembly	**3484**		Assembly	**3271**
	Part No	**4066**		Part No	**1219**
	Mast	Z265-351		Mast	Z401-902E
	Vang	Medium		Vang	Medium
	Assembly	**3246**		Assembly	**3252**
	**Part No**	**4938**		**Part No**	**1178**
	Mast	Z601-1100E		Mast	Z901-1100E
	Vang	Large		Vang	Large
	Assembly			Assembly	**3811**

Gooseneck Toggles

	Part No	**1034**		Part No	**1083**
	Mast	Z145-351		Mast	Z401-702E
	Boom	Z160/204		Boom	Z360
	Assembly	**3355**		Assembly	**6017** **3349**
	Part No	**4010**		Part No	**1187**
	Mast	Z601-902E		Mast	Z901-1100E
	Boom	Z480		Boom	Z690
	Assembly	**3782** **3783**		Assembly	**3794**

Vang & Gooseneck Brackets

Cast Brackets

Part No	**4063**
Mast	Z145-351
Boom	Z160/204
Assembly	**3355**

Part No	**1062**
Mast	Z401-602
Boom	Z360
Assembly	**6017**

Part No	**1063**
Mast	Z300E-500E
Boom	Z360E
Assembly	**3349**

Part No	**4008**
Mast	Z600E-902E
Boom	Z360E-480E
Assembly	**3782**

Part No	**4009**
Mast	Z601-902
Boom	Z360/480
Assembly	**3783**

Boom sections:
Z160, Z204, Z360, Z480
& Furling Equivalent

Extruded Brackets

Part No	**4430P**
Mast	Z145-351
Boom	Z162/202
Assembly	**3410**

Part No	**4330P**
Mast	Z401-702
Boom	Z362/482
Assembly	**3051**

Part No	**0138**
Mast	Z901-1100E
Boom	Z692
Assembly	**3794/3811**

Part No	**0565P**
Mast	Z902-1250E
Boom	Z362/482
Assembly	

Part No	**4980**
Mast	Z902/903
Boom	Z692
Assembly	

Part No	**4979**
Mast	Z1102
Boom	Z692
Assembly	

Part No	**1759P**
Mast	Z1250
Boom	Z482
Assembly	

Boom sections:
Z162, Z202, Z362, Z482, Z692, Z690
& Furling Equivalent

Shackles & Halyard Exits

Shackles

	Part No	**3039A**		Part No	**3168**
	Dims	3x7x12		Dims	5x12x25
	Type	Pole Piston		Type	Halyard Swivel
	Part No	**1558**		Part No	**0065**
	Dims	5x20x40		Dims	5x11x18
	Type	Tack - Toggle		Type	Spinnaker Car
	Part No	**3208**		Part No	**1556**
	Dims	6x35x35		Dims	6x28x45
	Type	Tack - Furling		Type	Spare
	Part No	**4803**		Part No	**4930**
	Dims	8x16x35		Dims	8x15x35
	Type	Halyard		Type	Tack - Eye Bolt

Delrin Halyard Slot Liners

Part No	**1630 Small**	**1692 Large**
Overall Size	115x21mm	125x29mm
Slot Size	90x15mm	95x20mm
Max Rope Ø	12mm	18mm

Stainless Steel Halyard Slot Liners

Part No	**1241 Small**	**1242 Large**
Overall Size	93x17mm	127x25mm
Slot Size	65x13mm	95x19mm
Max Rope Ø	10mm	16mm

Delrin & Stainless halyard slot liners are not interchangeable with one another.

Cleats

Alloy Cleats			
	Part No	**1145**	**1081**
	Length	120mm	170mm
	Rivet Hole Dist.	31mm	41mm
	Mast	Z145-190	Z230-602
	Part No	**1192**	
	Length	210mm	
	Rivet Hole Dist.	60mm x 43mm	
	Mast	Z601-1001	
	Part No	**1662**	**1126**
	Length	110mm	55mm
	Rivet Hole Dist.	92mm	31mm
	Rope Ø	8-12mm	<6mm
Delrin Cleats			
	Part No	**4587**	**4586**
	Length	120mm	170mm
	Rivet Hole Dist.	30mm	45mm
	Mast	Z145-190	Z230-602

Reefing Fairleads & Hooks

Double Line Fairleads				
	Part No	**4079**	**4068**	**4064**
	Masts	Z531/532	Z601-702	Z901-1002
	Max Rope Ø	12mm	12mm	12mm
	Material	Alloy		
Reef Hooks				
	Part No	**1492**	**1365**	**1515**
	Masts	Z145-351	Z401-702	Z901-1002
	Hook Dims Ø x W x H	8x90x85	9x110x108	10x140x180
	GN Assembly	**3355**	**3783**	**3794**

Sail Entry & Slide Stoppers

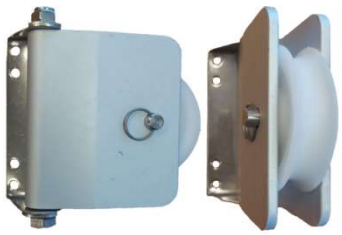
Slide Stoppers				
	Part No	**3495**	**3522**	**3520**
	Masts	Z170-265	Z351-702	Z901-1002
	Dims	Ø 13x85	6x17x81	5x21x90
Bolt Rope Sail Entry				
	Part No	**3085**		
	Masts	Z145-902		
	Max Bolt Rope Ø	8mm		

Halyard Blocks

Mast Base Block	Part No	Sheave Ø	Nut Ø	Max Rope Ø
	**0250**	28mm	M6	8mm
	0261	45mm	M8	12mm
	0275	60mm	M10	14mm
	0288	80mm	M10	16mm
Hanger Block	Part No	Sheave Ø	Width	Max Rope Ø
	**0251**	28mm	9.5mm	8mm
	0264	45mm	8mm	12mm
	0277	60mm	8mm	14mm
	0290	80mm	11mm	16mm
Mast Swivel Block	Part No	Sheave Ø	Nut Ø	Max Rope Ø
	**0300**	45mm	M8	12mm
	0301	60mm	M10	14mm
	0302	80mm	M10	16mm
Swivel Block	Part No	Sheave Ø	Shackle	Max Rope Ø
	**0266**	45mm	5mm	12mm
	0279	60mm	6mm	14mm
	0292	80mm	8.5mm	16mm
Ball Bearing Block	Part No	Sheave Ø	Width	Max Rope Ø
	**1589**	60mm	13.5mm	14mm
	4329	80mm	13.5mm	16mm
Spare parts available – Please ask for details				

Halyard Blocks

Becket Block	Part No	Sheave Ø	Gap	Max Rope Ø
	**0253**	28mm	13mm	6mm
Swivel Becket Block	Part No	Sheave Ø	Shackle	Max Rope Ø
	**0258**	60mm	6mm	14mm
Delrin Cheek Block	Part No	Sheave Ø	Mast	Max Rope Ø
	**3673**	45mm	Delta	12mm
	3673	45mm	01 Series	12mm
Cast Cheek Block	Part No	Sheave Ø	Mast	Max Rope Ø
	**3672**	45mm	Delta	12mm
	3672	45mm	01 Series	12mm

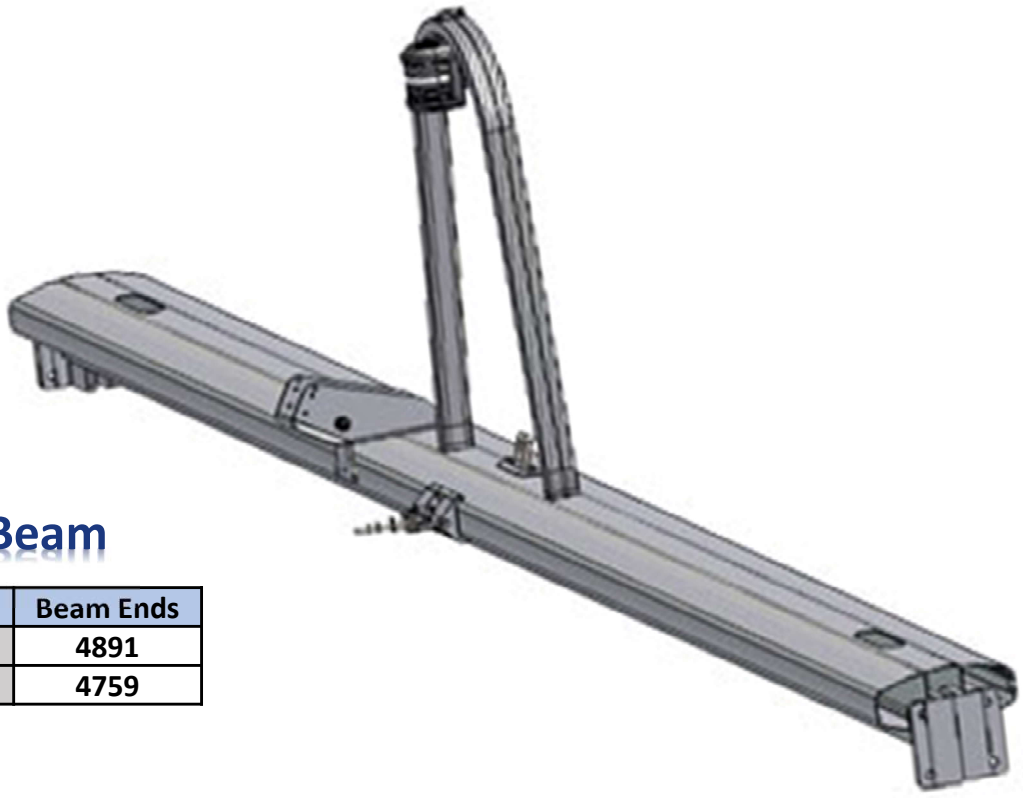
Clew Block	Part No		Flip Flop Block
	**3259**	**3340**	
	Sheave Ø		
	60mm	60mm	
	Max Rope Ø		
	14mm	14mm	

Spare parts available – please ask for details

Mast Foots, Steps & Bases

Mast Foots		**PN**	**1397**		**PN**	**1095**		**PN**	**1096**
		Mast	Z145		Mast	Z170		Mast	Z190
		Base	**1100**		Base	**1100**		Base	**1100**
		PN	**1171**		PN	**1097**		PN	**1098**
		Mast	Z190		Mast	Z230		Mast	Z265
		Base	**1101**		Base	**1101**		Base	**1101**
Mast Steps		PN	**1103**		PN	**1118**		PN	**1120**
		Mast	Z351		Mast	Z401		Mast	Z501 532E
		OAD	214 x 160		OAD	245 x 220		OAD	235 x 188
		PN	**1164**		PN	**4866**		PN	**1165**
		Mast	Z601 600E		Mast	Z602 602E		Mast	Z701 700E
		OAD	285 x 230		OAD	285 x 230		OAD	285 x 230
Mast Steps & Bases		PN	**4873**		PN	**4035**		PN	**4871**
		Mast	Z702 702E		Mast	Z901 900E		Mast	Z902 902E
		OAD	285 x 232		OAD	285 x 230		OAD	284 x 230
		PN	**1394**		PN	**1100 Base**		PN	**1101 Base**
		Mast	1001 1100		Mast	Z145-190		Mast	Z190-265
		OAD	214 x 160		Foot	**1397 1095 1096**		Foot	**1171 1097 1098**

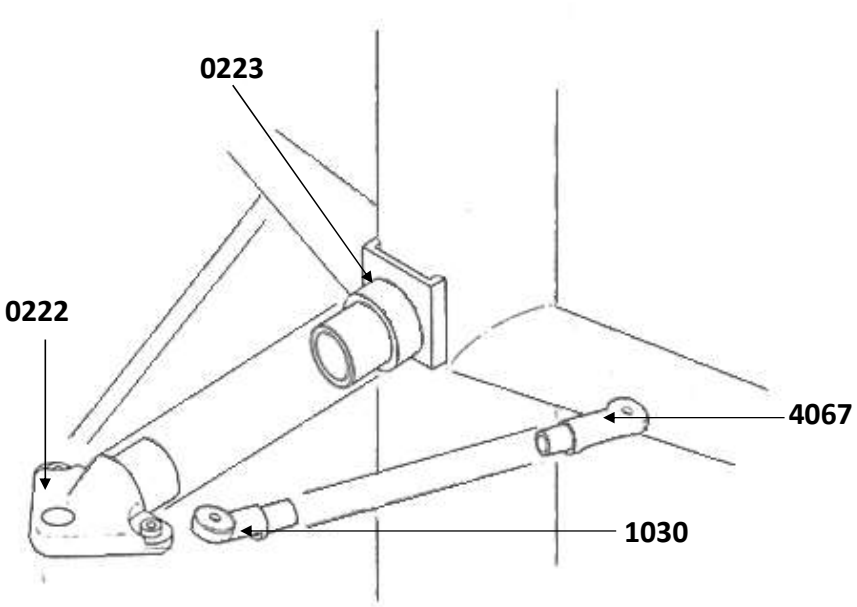
Catamaran Beams



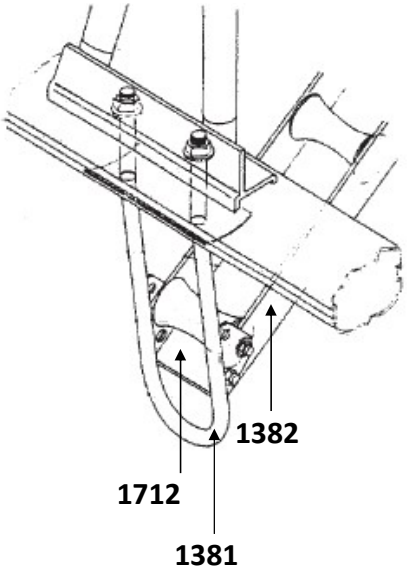
Fore Beam

Section	Beam Ends
Z 840	4891
Z 1370	4759

Triangulation Strut to Spreader



Anchor Roller

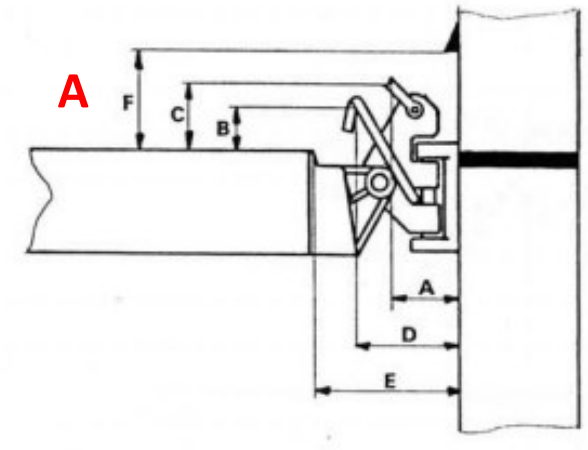


Sail Makers Information

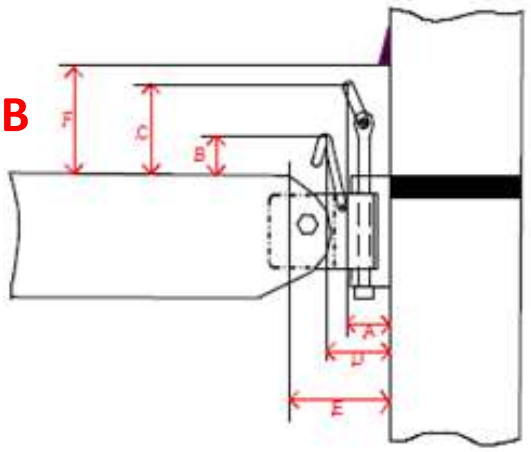
	Z145	Z170	Z190	Z230	Z265	Z301	Z351	Z380	Z401	Z501/ 502*	Z531/ 532	Z602	Z702	Z902	Z1002	Z1400
Sail slide	A013	A013	A013	A013	A013	HA89	A013	A013	A014	HA89	A014	A015	A015	HA91	HA91	HA91
Alternative	A016	A016	A016	A016	A014	A014	A014			A014		A014	A014			
*Z501 sections: check with your specific mast for your appropriate slide																
Luff Rope	8	8	8	8	8		8	8	10	10	10	10	10			

All Sections: G = 20mm

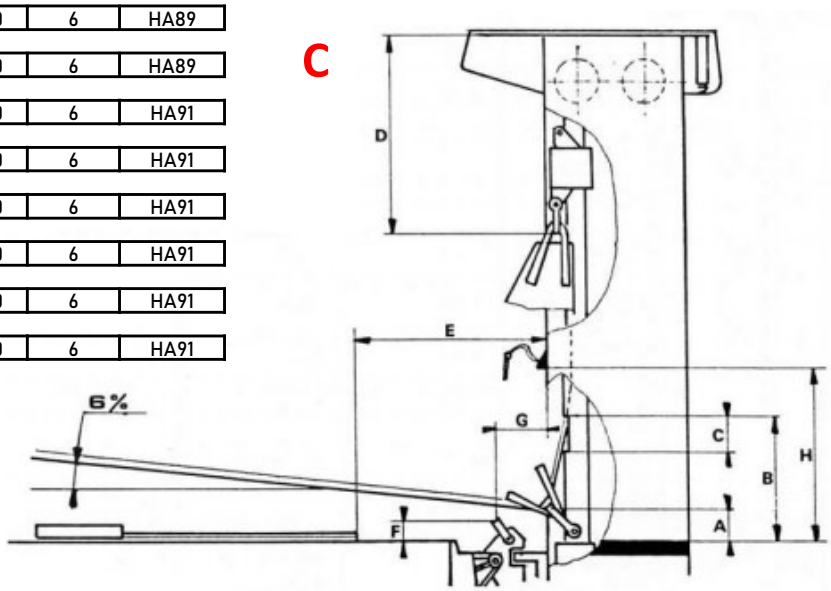
BOOMS	A	B	C	D	E	F	Foot Rope	Slide
	Drawing A							
Z120 dinghy	55	5	15	15	80	250	8	
Z120cruiser	40	40	20	60	130	250	8	
Z160	70	20	40	70	140	280	8	A032
Z204	70	30	45	80	170	280	8	A032
Z360	70	20	40	80	200	280	10	B012
Z480	60	0	20	90	200	280	10	B012
Z690	CALL Z SPARS UK							



02 PROFILE BOOMS	A	B	C	D	E	F	Foot Rope	Slide
	Drawing B							
Z162	50	0	40	60	95	280	8	A032
Z202	50	-10	35	60	95	280	8	B032
Z362	60	40	50	100	140	280	10	B012
Z482	60	30	40	100	150	280	10	B012



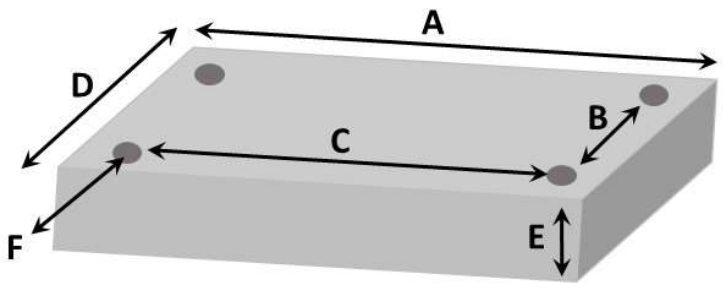
FURLING MASTS	A	B	C	D	E	H	Luff Rope	Trysail Slide
	Drawing C							
Z300E	60	500	100	400	800	100	6	HA89
Z400E	60	500	100	400	800	100	6	HA89
Z500E	60	500	100	400	800	100	6	HA89
Z600E	60	500	100	400	1000	100	6	HA91
Z700E	60	500	100	450	1000	100	6	HA91
Z800E	60	500	100	450	1000	100	6	HA91
Z900E	60	500	100	450	1200	100	6	HA91
Z1100E	60	500	100	450	1500	100	6	HA91
Z1400E	60	500	100	450	1500	100	6	HA91



Furling mainsails cannot use battens
Use 6% slope of foot
Luff rope size is sailmakers finished size

Base Dimensions

Mast	Part No	A	B	C	D	E	Ø F
Z145	**1100**	124	32	80	108	11	6.5
Z145 T	**1111**	110	0	90	40	19	5
Z170	**1100**	124	32	80	108	11	6.5
Z190 A	**1100**	124	32	80	108	11	6.5
Z190 B	**1101**	154	59	87	130	9	6.5
Z190 7/8 & T	**1100**	124	32	80	108	11	6.5
Z230	**1101**	154	59	87	130	9	6.5
Z265	**1101**	154	59	87	130	9	6.5
Z351	**1103**	214	85	160	160	14	6.5
Z351 7/8 & T	**4016**	190	100	145	120		8.5
Z401	**4032**	245	150	200	220	14	6.5
Z501/502	**1120**	235	150	200	188	14	8.5
Z531/532	**4022**	235	150	200	220		8.5
Z601	**1164**	285	160	215	230	25	8.5
Z601 7/8 & T	**1157**	300	160	210	190		8.5
Z602	**4866**	285	161	216	230	18.5	8
Z701	**1165**	285	160	215	230	15	8.5
Z701 7/8	**1158**	305	161	210	190		7.5
Z702	**4873**	285	161	215	232	18.5	8
Z901	**4035**	285	160	215	230		8.5
Z901 7/8	**1113**	225	70	130	150	0	8.5
Z902	**4871**	284	159	215	230	18.5	8
Z1001/1002	**1394**	340	180	260	260		8.5
Z1001/1002 7/8	**1161**	300	90	150	190	5	8.5
Furling Mast	**Part No**	**A**	**B**	**C**	**D**	**E**	**Ø F**
Z300 E	**1103**	214	85	160	160	14	6.5
Z300 E 7/8	**1115**	235	150	200	220		8.5
Z400 E	**4032**	245	150	200	220	14	6.5
Z500 E	**1120**	233	151	200	187		7.5
Z600 E	**1157**	300	160	210	190		8.5
Z600 E 7/8	**1164**	285	160	215	230	25	8.5
Z602 E	**4866**	285	161	216	230	18.5	8
Z700 E	**1165**	285	160	215	230	15	8.5
Z700 E 7/8	**1158**	305	161	210	190		7.5
Z702 E	**4873**	285	161	215	232	18.5	8
Z900 E	**4035**	285	160	215	230	5	8.5
Z900 E 7/8	**1113**	225	70	130	150	0	8.5
Z902 E	**4871**	284	159	215	230	18.5	8
Z1100 E	**1394**	340	180	260	260		8.5
Z1100 E 7/8	**1161**	300	90	150	190	5	8.5



Conditions of Sale

1. All goods sold by Z Spars UK (hereinafter called the "Company") are sold subject to these conditions.
2. All references to the Company apply to its authorised agents.
3. Quotations and Prices
    a. All quotations of price (whether written or verbal) are subject to withdrawal or amendment by the Company at any time prior to receipt by the Company of an order and thereafter are subject to correction of errors at any time.
    b. If the Company has not received an order within 30 days of the date of quotation, the quotation shall be deemed to have lapsed.
4. Payment
    a. Payment for goods under the contract shall be on or before the date of delivery of the goods.
5. Deposit
    a. One third of the value of goods is required as deposit when the order is placed.
6. Delivery
    a. The Company will endeavour to deliver the goods without delay, but this depends upon availability of materials and the customer providing details of their requirements in writing and in good time.
    b. The Company will endeavour to comply with reasonable delivery instructions but any specified time of delivery shall not be the essence of the contract and the Company shall not be liable for late delivery howsoever caused nor shall such failure to deliver be deemed to be a breach of any contract.
7. Liability
    a. Subject to the Unfair Contract Terms act 1977 and the requirement of reasonableness "therein, in the event of any claim against the Company in respect of the matter whatsoever the liability (if any) of the Company shall be limited to the replacement of goods sold by the Company in respect of when the liability (if any) arises only, and under no circumstances shall the Company be liable to the buyer or any other party for any consequential loss or damage whatsoever".
    b. Defects in quality in any delivery should not be a ground for cancellation of the remainder of the order or contract.
    c. Any alteration by the buyer or agent shall vitiate the Company from any liability relating to defects in the goods quality.
8. Claims
    a. No claims shall be entertained by the Company unless received by the Company in writing.
    b. Claims arising from damage or partial loss in transit must reach the Company within 30 days from the date of delivery.
    c. Claims for non-delivery must reach the Company within 10 days of the date of despatch.
    d. All other claims must reach the Company within 6 weeks of the date of despatch.
    e. Goods should be signed for "unexamined".
9. Suspension of Deliveries
    a. Every effort will be made to carry out the contract but its due performance is subject to cancellation by the Company and to such variations as the Company may find necessary as a result of inability to secure labour, materials, or supplies as a result of any act of God, war, strike, lock-out and other labour disputes, fire, flood, drought, legislations or other cause (whether of the foregoing class or not) beyond the Companies control.
    b. The Company shall be under no liability for failures, variations and delays attributable to the causes beyond its control.
10. Reservation of Title
    a. Title to any goods supplied by the Company shall not pass to the buyer until all payments due in respect of the goods are paid in full.
11. Indemnity
    a. The buyer shall indemnify the Company against all damages, penalties, costs and expenses to which the same may become liable as a result of work done in accordance with the buyer's specification which involves an infringement of any letters patent or registered design.

WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.