

**BURGH LE MARSH FIVE-SAILED WINDMILL**  
**Specification for new cap components**  
 Bonwick HC 29 September 2023 (version 1)

Element	Component code	Component	Local name	New/ existing	No.	Finished dimms: section (W x D)	Finished dimms: length (approximate)	Design details	Construction details	Material	Decoration	
A. Curb		Upper ring segment		N	6	See drawings		Carefully inspect originals and re-use if possible.	Machine upper face of track flat and level. Machine ends of segments to ensure radial fit and consistent tooth pitch. Machine lower face of segments flat and level. Machine inner face to accept centring wheels.	SG iron	Red lead oxide; black enamel paint	done
	Drawings	Lower ring segment		N	12	See drawings		Modify existing design to form complete ring, omitting infill brickwork, as at Sibsey Mill	Machine upper and lower faces flat and level. Machine end faces to ensure radial fit. Machine inner face to accept centring wheels. Level curb on top of tower, grout under and bolt securely to upper brickwork. Re-fit existing holding-down bolts.	SG iron	None	done
		Bolts (upper to lower ring)		N	20	TBC				Stainless steel / galvanised steel	None	done
		Bolts (upper ring segments - end to end)		N	6	TBC				Stainless steel / galvanised steel	None	done
		Fish plates (upper ring)		N	6	TBC				Stainless steel / galvanised steel	None	done
		Fish plate bolts (upper ring)		N	20	TBC				Stainless steel / galvanised steel	None	done
		Bolts (Lower ring segments - end to end)		N	6	TBC				Stainless steel / galvanised steel	None	done
		Bolts (lower ring to tower)		N	12	TBC				Stainless steel / galvanised steel	None	done
		Hold down bolts		E	6	TBC			Overhaul and re-use existing bolts.	Stainless steel / galvanised steel	None	done
<b>Generally</b>							<b>Add 300mm to these lengths and double check on drawings.</b>	<b>Planned unless otherwise specified. Sharp corners removed. Match shaping to existing timbers unless specified.</b>	<b>Straight-grained heartwood, air dried, free of defects and knots</b>	<b>Ends and joints exposed to the weather back to 75mm inside inner face of cladding</b>		
B. Cap frame /	A (R)	Sheer RHS		N	1	295 W x 305 D consistently	4880			Dry oak	Kreidezeit Stand Oil Paint (exposed areas only, on all faces)	done
C. Fan stage /	A (L)	Sheer LHS		N	1	295 W x 305 D consistently	4880			Dry oak	Kreidezeit Stand Oil Paint (exposed areas only, on all faces)	done
D. Cap roof	B	Weather beam	Road bauk	N	1	352 W x 352 D	3385		Notched 22mm over sheers	Dry oak	Kreidezeit Stand Oil Paint (Top face, front face and ends. Rear and lower faces outside cap only)	done
	C	Pillow block		N	1	?	600 approx			Dry oak	Kreidezeit Stand Oil Paint (exposed areas only, on all faces)	done
	D	Mullion (= front horn)	Mullion	N	2	160 W x 283 D	1200 approx	Set at splayed angle, wider at RB, narrower at headstock	Single tenoned into headstock, 63 up and tenon 70 D x 250 L	Dry oak	None	done
	E	Headstock		N	1	213 W x ? D	2600 approx	Locate & survey	Double tenoned into sheers?	Dry oak	None	done

F	Sprattle beam	Spindle beam	N	1	275 W x 203 D	2400 approx	Mortices in sheers are 370 L	Single tenon 50 down from top, 75 D x 102 L.	Dry oak	None	done
G	Puncheon (= side horn)		N	2	195 W x 145 D	862 approx		Single tenoned into sheers and secured with captive bolt. Lower face flush with lower face of sheers. Notched for cap circle.	Dry oak	Kreidezeit Stand Oil Paint (outer end only)	done
H	Tail beam		N	1	360 W x 375 D	2680		Double tenoned. Upper tenon 305 L x 120 D, 55 gap, lower tenon 72 D, 127 gap.	Dry oak	None	done
I	Tail mullion		N	1	295 W x 254 D?	Locate & survey.	Wedged off tail beam. Held guide sheave.				done
J	Rear threshold beam		N	1	150 W x ? D	2200 approx	Rear striking gear hangers bolted to rear face which is external.	Mortice 50 down from top of sheer, 85 W x 150 L.	Dry oak	None	done
K	Fan stage deck board		N	1	250 W x 89 D	2000 approx	Ensure plank is adequately reinforced in centre.		Dry oak	Kreidezeit Stand Oil Paint	done
L	Fan stage ladder		N	1	500 W overall		6no. Treads. Rear string bolted to rear face of fan stage deck board (component K).	Extends up to LH spear.	Dry oak	Kreidezeit Stand Oil Paint	done
M	Fantail post	Spear	N	2	152 W x 160 L at base.	5595	Tie rod 35 diam between near top.	Butted and bolted to top of sheer.	Dry oak	Kreidezeit Stand Oil Paint	done
N	Fantail strut	Spurn	N	2	135 x 123 at base.	3500 approx		Footed on sheers at bottom. Tenoned into lower face of spears at top.	Dry oak	Kreidezeit Stand Oil Paint	done
O	Lower tie beam (at roof)		N	1	120 x 95	1925 o/a, 1775 between shoulders		Tenoned into spears.	Dry oak	Kreidezeit Stand Oil Paint	done
P	Pulley rigger		N	1	110 W x 125 D	Length TBC	Locate & survey	Notched over and bolted to Beam O at inner end. Supported by beam Q at outer end.	Dry oak	Kreidezeit Stand Oil Paint	done
Q	Pulley rigger bracket		N	1	102 W x 127 D ?	Length TBC	Locate & survey	Bolted to rear face of X-braces (component R).	Dry oak	Kreidezeit Stand Oil Paint	done
R	X-brace		N	2	145 W x 76 D			Slightly notched together and bolted at centre. Butted and bolted to spears at top and spurns at bottom.	Dry oak	Kreidezeit Stand Oil Paint	done
S	Cap circle		N	1	152 W x 75 D	External radius 2190 approx.	Confirm design details during set-out.	Lower face flush with lower face of sheers. Tenoned into sheers (tenons 76mm long x 45mm high and mortices 38 mm above lower faces of sheers). Notched and bolted to puncheons.	Dry oak	Kreidezeit Stand Oil Paint outer face only)	done
T	Cap rafter		N	26	51 W x 67 D			Notched and screwed into cap circle. Tenoned into finial.	Dry oak in maximum 2no. sections scarfed, glued and screwed together.	Kreidezeit Stand Oil Paint	done
U	Cap finial		N	1			Locate & survey	Re-use existing stalk if possible.	Dry oak	Kreidezeit Stand Oil Paint	done
V	Handrail		N	2	64 W x 78 D		Locate & survey	Carried on handrail post tenons and secured with oak pegs.	Dry oak	Kreidezeit Stand Oil Paint	done
W	Handrail post		N	10	64 W x 78 D	1000 approx	Locate & survey	Spiked to fantail posts (spears).	Dry oak	Kreidezeit Stand Oil Paint	done
X	Handrail brace		N	6	54 W x 16 D		Locate & survey	Set between handrail posts.	Dry oak	Kreidezeit Stand Oil Paint	done
Y	Upper tie beam (near fantail)		N	1	155 W x 140 T-B		1390 o/a	Tenoned into spears.	Dry oak	Kreidezeit Stand Oil Paint	done
Z	Sarking boards		N	?	178 W x 12 THK		Confirm design details during set-out.	Screwed to rafters. Terminates at lower edge of cap circle.	Joinery grade redwood	None	done

AA	Exterior boards		N	?	178 W x 18 THK tapering to 6 THK		Upper ring of boards overlaps lower ring by 152mm?. Lower ring extends down past cap circle to form petticoat.	Feather edged, planed finish. Nailed to sarking boards. Allow for smaller timbers of treated softwood below sheers & puncheon for attachment of petticoat.	Western red cedar	Kreidezeit Stand Oil Paint (laps, both edges and outer face)	done
BB	Centring wheel (front mullions)	Guide sheave	N	2			Locate & survey	Bolted through mullion.	SG iron	Red lead oxide; black enamel paint	done
CC	Centring wheel (front ends of sheers)	Guide sheave	N	2			Locate & survey	Bolted through sheer and overlay.	SG iron	Red lead oxide; black enamel paint	done
DD	Centring wheel (side puncheons)	Guide sheave	N	2			Locate & survey	Bolted through puncheon.	SG iron	Red lead oxide; black enamel paint	done
EE	Centring wheel (rear ends of sheers)	Guide sheave	N	2			Locate & survey	Bolted through sheer.	SG iron	Red lead oxide; black enamel paint	done
FF	Centring wheel (rear centre)	Guide sheave	N	1			Locate & survey	Bolted through rear mullion.	SG iron	Red lead oxide; black enamel paint	done
GG	Centring wheel spindle		N	9			Locate & survey	Form all new spindles to match existing, allowing for new nuts, washers and keys.	BDMS	None - lubricant only	done
HH	Skid block	Pig	N	9	103 W x 152 radially	Bed 35 D and tongue 51 D	Locate & survey	Press-fitted to sheers / front mullions / puncheons / rear mullion	Grey iron	None - lubricant only	done
JJ	Windshaft		E	1	Forward end 230 square. Neck journal 230 diam. Central section max 221 square. Tail end octagonal, 155 across flats. Tail journal 110 diam. Tail end flange 135 diam.	3800 approx	Windshaft came down with the cap, hence its replacement may be the preferred option.	Carry out strength tests on existing shaft to determine condition. If serviceable, remove remains of sail cross, clean down shaft and journals and redecorate.	Grey iron	Red lead oxide; black enamel paint	done
KK	Sail cross		N	1	5no. Arms 275 wide plus bulges for shackle fixings. Central hub 470 diam approx. Central hole 262 square	1736 radius approx	See detail drawing.	Keyed onto square forward end of windshaft with 4no. Pairs of steel taper keys.	SG iron	Red lead oxide; black enamel paint	done
LL	Brake wheel		N	1	8-arm hub 292 D in centre and 190 D approx at periphery. Rim 345 W x 225 D in 2no. Layers.	Arms 1027 radius. Rim 1245 radius.	Hub cast in halves and bolted together with 3no. Bolts per arm. Ends of arms rebated into rim and bolted. Tooth sections bolted to rim.	Dismantle remains of old wheel and confirm dimensions. Salvage undamaged components for possible re-use.	Hub and tooth sections: SG iron. Rim sections: dry oak.	Hub: red lead oxide, light blue enamel paint (match shade of existing wheel). Teeth: red lead oxide; black enamel paint. Rim: Kreidezeit Stand Oil Paint (white).	done
MM	Brake band		N	2 pcs	203				BDMS	Undecorated.	done
NN	Brake lever stanchion		E	1	185 W x 203 D		Tenoned into sheer and strapped around it.	Dismantle, overhaul stanchion, re-shape block and re-fit to new sheer.	Oak	Undecorated.	done
OO	Brake lever		N	1	185 W x 203 D approx	2500 L approx.	Locate all parts & survey	Match dimensions and finish of historic lever.	Oak	Undecorated.	done
PP	Brake pulley and bollard		N	1	TBC	TBC	Locate all parts & survey	Salvage old parts for re-use if serviceable.		Undecorated.	done
QQ	Brake hook		N	1	TBC	TBC	Locate all parts & survey	Salvage old parts for re-use if serviceable.		Clean down and de-grease. Redecorate with black enamel paint. matt finish	done
RR	Brake chain and guide pulley		N	1	TBC	TBC	Locate all parts & survey	Salvage old parts for re-use if serviceable.		Undecorated.	done
SS	Neck bearing		E	1				Allow for blocks to appropriate height below bearing chair. Allow for renewal of bearing shell, machined to suit journal.	Chair: grey iron. Bearing shell: gunmetal LG2.	Clean down chair and de-grease. Redecorate with black enamel paint, matt finish.	done

TT	Tie rod to neck bearing	E	2					Wrought iron?	Red lead oxide; black enamel paint	done	
UU	Tail bearing	E	1				Overhaul existing. Provide new brasses if worn.	Cast iron chair, gunmetal bearing shell.	Clean down and de-grease. Redecorate with red lead oxide; black enamel paint	done	
VV	Tie rod from spear to weather beam	N	2	25mm diam		Manufacture and install tie rods, matching existing, to resist rotation of weather beam	Forward end flattened and moulded over front and lower faces of weather beam. Rear end flattened and butted to upper face of spear. Coach screw fixings.	BDMS	Red lead oxide; black enamel paint	done	
WW	Sheet metal flashing to front and rear of cap	N	n/a	1.2mm thickness		Protect exposed upper and side faces of sheers and mullions where they project through cladding	Fit flashing around neck bearing of windshaft and over exposed ends of sheers, mullions and weather beam. Ensure it is suitably weathered to external boarding by tucking underneath and sealing. Ensure separation between aluminium and lead.	1.2mm aluminium sheet and sheet lead of equivalent thickness	Etching primer and metal paint.	done	
XX	Storm hatch	N	1	Locate & survey				Oak frame & cedar cladding.	Kreidezeit Stand Oil Paint	done	
YY	Tail hatch	E	1	490 W at top	915 H		Repair and redecorate existing.	Oak frame & cedar cladding.	Kreidezeit Stand Oil Paint	done	
ZZ	Fan stage ladder	N	1	TBC	TBC	7no. Treads			Kreidezeit Stand Oil Paint	done	
<b>E. Winding gear</b>											
3A	Fan blade	Fan board	N	8	Blade comprises 8no. Boards 16 thickness x 165 wide which includes 2no. 15mm half laps. Battens 60 x 16. Blade 363 wide at heel and 1320 wide at point.	1285 L	Blades set at 23 degrees to plane of rotation.	Blade held in slot in fan stock and secured with three bolts.	Joinery grade redwood	Kreidezeit Stand Oil Paint	done
3B	Fan stock		N	8	95 x 95	1702 L, inner ends shaped.		Slotted to accommodate blade. Inner end bolted through hub and clamped to arm with U-bolt.	Dry oak	Kreidezeit Stand Oil Paint	done
3C	Fan hub and cover plate		E	1		810 radius		Allow for renewal of fixings.	Cast iron	Clean down and de-grease existing. Red lead oxide and black enamel paint.	done
3D	Fan spindle (shaft 1)		E	1	50mm square, journals 55mm long	933 between bearings.		Overhaul and decorate existing.	BDMS hot-dip galvanised	Clean down and de-grease existing. Red lead oxide and black enamel paint.	done
3E											
3F	Bearings of shaft 1		N	2			Large plates bolted to fan spears.		Grey iron and gunmetal LG2	Red lead oxide and black enamel paint.	done
3G	Gear A (small bevel)		E	1	170 diam	12no. Teeth		Overhaul and decorate existing.	Grey iron	Clean down and de-grease existing. Red lead oxide and black enamel paint.	done
3H	Gear B (large bevel)		E	1	457 diam	38 teeth		Overhaul and decorate existing. Original is worn but serviceable.	Grey iron	Clean down and de-grease existing. Red lead oxide and black enamel paint.	done
3J	Down shaft (Shaft 2)		E	1	32mm diam	In two parts, joined with dog clutch coupling above steady bearing. Upper part 1915 long	Locate lower part of shaft & survey.	Overhaul and decorate existing.	Wrought iron?	Clean down and de-grease existing. Red lead oxide and black enamel paint.	done
3K	Bearings for shaft 2		N	2					Grey iron and gunmetal LG2	None - lubricant only	done
3L	Bearing for lower end of shaft 2		N	1					Grey iron and gunmetal LG3	None - lubricant only	done

3M	Gear C (driving bevel)	E	1	90 radius		Locate & survey.	Overhaul and decorate existing.	Grey iron	Clean down and de-grease existing. Red lead oxide and black enamel paint.	done
3N	Gear D (driven bevel)	E	1	160 radius		Locate & survey.	Overhaul and decorate existing.	Grey iron	Clean down and de-grease existing. Red lead oxide and black enamel paint.	done
3O	Horizontal shaft (Shaft 3)	E	1			Locate & survey.	Overhaul and decorate existing.	Wrought iron?	Clean down and de-grease existing. Red lead oxide and black enamel paint.	done
3P	Bearings for shaft 3	E	2			Locate & survey.	Overhaul and decorate existing.	Grey iron and gunmetal LG2	None - lubricant only	done
3Q	Gearbox	N	1				Original damaged during cap fall. Create pattern, re-cast, fettle and decorate.	SG iron	Red lead oxide and black enamel paint.	done
3R	Gear E (driving bevel)	E	1	120 radius		Locate & survey.	Overhaul and decorate existing.	Grey iron	Red lead oxide and black enamel paint.	done
3S	Gear F (driven bevel)	E	1	460 diam	38 teeth		Overhaul and decorate existing.	Grey iron	Red lead oxide and black enamel paint.	done
3T	Vertical shaft (Shaft 4)	E	1		45 diam		Overhaul and decorate existing.	Wrought iron?	Red lead oxide and black enamel paint.	done
3U	Bearings for shaft 4	N	2					Grey iron and gunmetal LG2	Red lead oxide and black enamel paint.	done
3V	Gear G (spur pinion)	E	1	165 diam	12 teeth		Make pattern based on worn original. Cast, fettle, machine and fit to shaft.	Grey iron	Red lead oxide and black enamel paint.	done
3W	Gear H (spur wheel)	E	1	754 diam x 55 D	58 teeth		Overhaul and decorate existing.	Grey iron	Red lead oxide and black enamel paint.	done
3X	Final drive shaft (Shaft 5)	E	1		45 x 45		Overhaul and decorate existing.	Grey iron	Red lead oxide and black enamel paint.	done
3Y	Bearings and support bracket for shaft 5	E	2			Check integrity of bracket when removed from old cap frame.	Overhaul and decorate existing.	Grey iron	Red lead oxide and black enamel paint.	done
3Z	Gear J (Curb pinion)	N	1	203 diam		Survey and inspect when removed from old cap frame.	Replicate existing. Drill and machine keyway and fit to shaft. Provide spare casting.		Red lead oxide and black enamel paint.	done

**F. Rear striking gear**

4A	Striking rod	N	1	32mm diam		Threaded at forward end for spider coupling. Flanged at rear end to fit brass in onion box.		BDMS, hot-dip galvanised	Clean down and de-grease existing. Red lead oxide and black enamel paint.	done
4B	Rollers and onion box	E	1	Locate & survey			Dismantle, inspect, overhaul, lubricate.	Grey iron	None - lubricant only	done
4C	Guide for rollers	E	2	Locate & survey			Dismantle, inspect, overhaul, lubricate.	Wrought iron?	None - lubricant only	done
4D	Push rod (onion box to rocker arm)	E	2	Locate & survey			Dismantle, inspect, overhaul, lubricate.	Wrought iron?	Red lead oxide; black enamel paint	done
4E	Rocker arm	E	2	Locate & survey		Keyed to push rods at top	Dismantle, inspect, overhaul, lubricate.	Grey iron	Red lead oxide; black enamel paint	done
4F	Rocking lever spindle	E	1	Locate & survey			Dismantle, check and overhaul journals.	Wrought iron?	Red lead oxide; black enamel paint	done
4G	Rocking lever hangers	N	2	Locate & survey		Fixed to rear face of threshold beam.	Bolt through threshold beam.	Grey iron	Red lead oxide; black enamel paint	done
4H	Rocking lever	E	1	Tapers 75 D to 47 D	2400 to end		Overhaul and decorate existing.	Wrought iron?	Red lead oxide; black enamel paint	done
4J	Striking chain	N	1			D-shackles to end and middle of rocking lever.	Ensure gauge of chain matches guide pulley.	BDMS, hot-dip galvanised	None	done
4K	Nesting weight	E	3				Check for defects and repair if required.	Grey iron	Red lead oxide; black enamel paint	done

**DIMENSIONS AND QUANTITIES FOR ONE SAIL ONLY**

**G. Sail assembly**

5A	Whip		N	1	279 x 279 at heel, 279 W x 314 at 2743 out, 140 x 140 at point.	9754 (32ft)		Fit 4no. Galvanised steel hoops after shaping and prior to mortising.	Laminated heartwood of Siberian larch	Kreidezeit Stand Oil Paint	done
5B	Sail bar		N	9	98 W x 48 D tapering to 80 W x 29 D.	2235 approx.		5mm chamfers to ends. Remove all other sharp edges. Install tapered bar wedges on all sail bars to match existing.	Joinery grade redwood	Kreidezeit Stand Oil Paint	done
5C	Uplong	Inside rule	N	1	45 x 38	8100 approx		5mm chamfers to ends.	Dry heartwood of Siberian larch	Kreidezeit Stand Oil Paint	done
5D	Hemlath	Outside rule	N	1	45 x 38	8100 approx		5mm chamfers to ends.	Dry heartwood of Siberian larch	Kreidezeit Stand Oil Paint	done
5E	Backstay		N	9	95 W x 42 D tapering to 32 D	2000 approx		5mm chamfers to arrises.	Joinery grade redwood	Kreidezeit Stand Oil Paint	done
5F	Thimble strip	Firring piece	N	16	45 x 45	1000 approx		5mm chamfers to arrises.	Joinery grade redwood	Kreidezeit Stand Oil Paint	done
5G	Wind board	Weatherboard	N	1	115 W	8100 approx		5mm chamfers to arrises.	Joinery grade redwood	Kreidezeit Stand Oil Paint	done
5H	Sail shackle		N	3	35 x 35			Provide painted oak blocks to front face of whip to suit	BDMS, hot-dip galvanised	Mordant solution; black enamel paint; Kreidezeit paint (white) to blocks	done
5J	King bolt		N	1	Square head and section with square washer			Replicate existing.	BDMS, hot-dip galvanised	Mordant solution; black enamel paint	done
5K	Whip band	Hoop	N	4	32 x 6		Size varies to match girth of whip.	Match existing.	BDMS, hot-dip galvanised	Mordant solution; Kreidezeit Stand Oil Paint	done
5L	Carriage bolts		N	36			To inside and outside rules, backstay thin ends and weatherboards	M12	Stainless steel.	Mordant solution; Kreidezeit Stand Oil Paint	done
5M	Front disc		E	1	757 diam x 35 thk at periphery tapering to 45 thk in centre			Refurbish and re-use existing.	Grey iron	Red lead oxide; black enamel paint	done
5N	Back oak		N	1	279 W x 45 D at heel tapering to 70 D at Sailbar 2.	2210	Starts 175 from heel end of whip.	Drill for king bolt and glue to rear face of whip	Dry oak	Kreidezeit Stand Oil Paint	done

**DIMENSIONS AND QUANTITIES FOR ONE SAIL ONLY**

**H. Front striking gear**

6A	Cross iron (spider)		N	1		152 radius c-c	Left-handed.	Match existing.	Grey iron	Red lead oxide; black enamel paint	done
6B	Rein iron		N	1		320 c-c		Match existing.	Grey iron	Red lead oxide; black enamel paint	done
6C	Harp iron - inner arm		N	1		375 c-c		Match existing.	Grey iron	Red lead oxide; black enamel paint	done
6D	Harp iron - outer arm		N	1		355 c-c		Match existing.			done
6E	Harp iron spindle		E	1	45 diameter?	490 o/a		Dismantle, inspect, overhaul. Allow for re-bushing as necessary.	Grey iron	Red lead oxide; black enamel paint	done
6F	Stump iron		N	2		345 c-c approx	Mirrored pair with spine on outer faces of legs and placement stub on inner faces.	Identify any serviceable parts and set aside for potential re-use. Include for separate hearing caps.	Grey iron	Red lead oxide; black enamel paint	done
6G	Fork iron (connecting rod)		N	1	25 diameter?	2600 approx	Identify any serviceable parts and set aside for potential re-use.	Match existing. Include for threaded outer end, adjusting nuts and connecting bracket.	BDMS, hot-dip galvanised	Mordant solution; black enamel paint	done
6H	Working uplong	Striking rule	N	1	45 x 45	9100 approx		Remove all sharp edges.	Dry heartwood of Siberian larch	Kreidezeit Stand Oil Paint	done
6J	Shutter crank		N	22	45 degrees	175 throw (should be 178)		Identify any serviceable parts and set aside for potential re-use.	Grey iron	Kreidezeit Stand Oil Paint	done
6K	Shutter pivot		N	22				Identify any serviceable parts and set aside for potential re-use.	Grey iron	Kreidezeit Stand Oil Paint	done

6L	Sail shutter	Shade	N	22	305 W	1636 between square shoulders, 1746 between rules	Strong back 76 x 38	Identify any serviceable parts and set aside for potential re-use.	Strong back: Joinery grade redwood. Wire: 7mm diam stainless steel. Covering: LOOMSTATE (unproofed) 12oz canvas. Attachment: man-made thread.	Kreidezeit Stand Oil Paint	done
	<b>PROVISIONAL ITEM</b>	Shade - new	N	1	305 W	1637 between square shoulders, 1746 between rules	Strong back 76 x 38	Provide cost per new shutter	Strong back: Joinery grade redwood. Wire: 7mm diam stainless steel. Covering: LOOMSTATE (unproofed) 12oz canvas. Attachment: man-made thread.	Kreidezeit Stand Oil Paint	done

END OF COMPONENT SPECIFICATION