

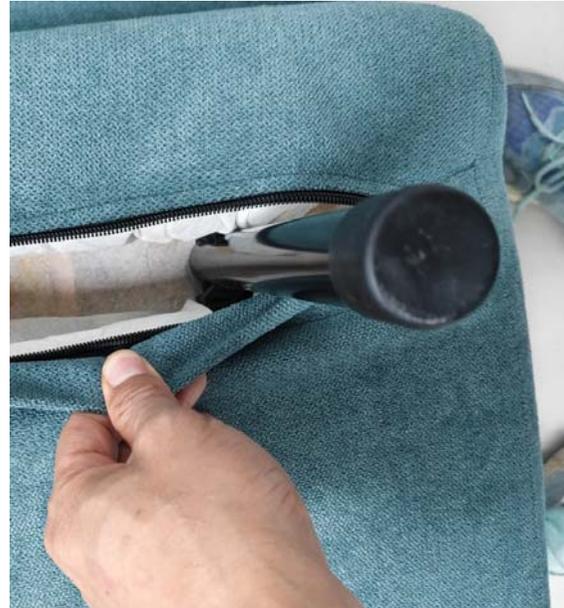
DC INTERNAL TEST REPORT FOR Mallory Daybed

Written by:	Ken.wu	Date:	1-20-2026
Standard:	EN 12520: 2024 Furniture - strength and durability and safety - Requirements for domestic seating	Supplier:	Civil
General information:			
Model & description:	UK Mallory Daybed	Weight:	NA
Product overall dimension: 1956mm x 1405mm x 270mm (BED) 1405mm x 1000mm x 865mm (Sofa)			
Test	Test Description and Requirements	Test Result	COMMENT
6 Safety requirements			
General requirements	<p>All parts of the seating with which the user comes into contact during intended use, shall be designed to ensure that physical injury and damage are avoided.</p> <p>These requirements are met when:</p> <p>a) edges of the seat, back rest and arm rests, which are in contact with the user when sitting are rounded or chamfered. All other edges accessible during use shall be free from burrs and/or sharp edges.</p> <p>b) ends of hollow components are closed or capped. Movable and adjustable parts shall be designed so that injuries and inadvertent operation are avoided. It shall not be possible for any load bearing part of the seating to come loose unintentionally.</p> <p>All parts which are lubricated to assist sliding shall be designed to protect users from lubricant stains when in normal use.</p>	M	
Holes in tubular or rigid components	<p>There shall be no holes in the ends of tubular components or holes in rigid components in accessible parts between 7 mm and 12 mm, unless the depth of penetration is less than 10 mm. This requirement is fulfilled if there is no hazard present when tested in accordance with C.1. Test method</p> <p>Insert the 7 mm test probe (C.1.1.1) into the accessible hole or tubular component without any force.</p> <p>If the 7 mm test probe does not enter, or enters to a depth less than 10 mm, there is no hazard present.</p> <p>If the 7 mm test probe enters to a depth greater than 10 mm, attempt to insert the shape assessment probe (C.1.1.2) in any direction (see Figure C.3), without any force.</p> <p>If the shape assessment probe does not enter, a hazard is present. If the shape assessment probe enters, but to a depth less than 10 mm, a potential hazard is present.</p> <p>The presence of a hazard will be dependent on the geometry of the hole. A tapered hole cannot present a hazard, however a stepped hole can present a hazard (see Figure C.4).</p> <p>If the shape assessment probe enters more than 10 mm in depth and the probe cannot be removed, without any force and in any direction, a hazard is present. If the shape assessment probe enters more than 10 mm in depth and the test probe can be removed, without any force and in any direction, no hazard is present. The process flow is shown in</p>	M	
Shear and compression points	Shear and compression points when setting up and folding	M	
	Shear and compression points under influence of powered mechanisms	M	
	Shear and compression points during use	M	
Seating Testing			
1. Forwards overturning	<p>For seating with a single seat apply the force F1 vertically by means of the loading pad acting at the point on the centre line of the seat 60 mm behind the front edge of the load bearing structure.</p> <p>For seating with multiple seats simultaneously apply two forces of F1 each vertically, by means of the loading pad acting at the point on the centre line of the seats 60 mm behind the front edge of the load bearing structure, at the positions most likely to cause overturning.</p> <p>At each loaded position apply a force F2 horizontally outwards along a horizontal line extended forward from the point where the base of the loading pad meets the upper surface of the seat.</p>	M	
2. Sideways overturning, all seating without arm rests	<p>This test is applicable to all seating where the top edge of the seat on the transverse plane is 50 mm or less above the height of the loaded seat loading point. The transverse plane shall pass through the seat loading point.</p> <p>Apply a force F1 vertically by means of the loading pad at a point 60 mm behind the edge of the load bearing structure on the side nearest the stopped feet and on the transverse plane of the seat.</p> <p>Apply a sideways force F2 horizontally outwards, perpendicular to the median plane, along a line from the point where the base of the loading pad meets the upper surface of the seat.</p>	M	
3. Rearwards overturning all seating with back rests	<p>The test is not applicable to seating that has adjustable back rest inclination that cannot be locked in position.</p> <p>For seating that has an adjustable back rest inclination that can be locked in position, it shall be locked in the most upright position. When an independent lumbar adjustment is fitted it shall be set in the most adverse configuration.</p> <p>Apply a vertical force F1 to the seat by means of the loading pad at the seat loading point (A).</p> <p>Apply the force F2 horizontally in a rearward direction to the back of the seating at the back loading point, B, or at the top edge of the back rest, whichever is the lower.</p> <p>When the seating has more than one sitting place, carry out the procedure on two most adverse sitting places simultaneously.</p>	M	
4. Seat static load and back static load test	<p>Seat: 1300N; Back: 450N (Min. 410 N);</p> <p>Load applied to seats not being tested: 750 N;</p> <p>Cycles: 10</p>	M	

5. Seat front edge static load test	Seat front edge static load: 1300N and 750N; Cycles: 10	M	
6. Variation for couch or bench	Force: 450N; Seat load: 1000N; Cycles: 10	M	
7. Leg forward static load	Force: 400N; Seat load: 1000N; Cycles: 10	M	
8. Leg sideways static load test	Force: 300N; Seat load: 1000N; Cycles: 10	M	
Bed Testing			
1. Vertical static load test on bed base	Domestic: F: 1400 N Cycles: 10 Loading pad: ϕ 200 mm Apply the force at all points of the bed base where failure is likely to occur, but not less than 100 mm from any edge. If there are several such positions, carry out the test at a maximum of 4 different positions.	M	
2. Vertical static load on side rail	Domestic: F1: 1200 N F2: 1200 N Cycles: 10 Loading pad: ϕ 100 mm Apply two vertical downward forces F1 and F2 simultaneously for 1 min on the centre line of the top surface of one side rail. The loading points shall be 300 mm either side of the middle point line of the side rail	M	
3. Horizontal static load on headboard of beds \leq 1 200 mm in width	Domestic: Mass:100kg F:200N (Bending moment:120Nm) Cycles:10 N/A for NO HB, or H<300mm Apply the mass on the centre line of the bed base, 175 mm from the headboard. Apply the outward force using the loading pad (ϕ 200mm). The loading point shall be at 600 mm above the upper surface of the bed base or at a point 100 mm below the upper edge of the headboard, whichever is the lower. The loading point shall be at the centre line of the headboard.	NA	
4. Horizontal static load on headboard of beds > 1 200 mm in width	Domestic: Mass:100kg F:200N (Bending moment:120Nm) Cycles:10 N/A for NO HB, or H<300mm Apply two masses simultaneously at points on a line 175 mm from the headboard, 300 mm on either side of the centre line of the bed base. Apply two horizontal outward forces simultaneously using the loading pad (ϕ 200mm). The loading points shall be at 600 mm above the upper surface of the bed base or at a point 100 mm below the upper edge of the headboard, whichever is the lower. The loading points shall be 300 mm on either side of the centre line of the headboard.	NA	
5. Horizontal static load test for beds without headboards and for all beds with folding legs (with or without headboards)	Domestic: Mass: 75kg F:300N Cycles:10 This applies to the beds without headboards or whose headboard's upper edge is less than 300 mm high from the upper surface of the bed base. In case of folding legs the test shall be applied in all directions in which the folding legs fold. Apply the horizontal force using the loading pad (ϕ 200mm). The loading point shall be at the centre line of the end member, 50 mm below the upper edge of the end member which is furthest away from the stops.	M	
6. Vertical durability test of bed base	Domestic: F:1000N Cycles:10000 Guest beds:Cycles:5000 Apply the vertical downward force by using the loading pad (ϕ 200mm) at each position A,B,C,D. > 1 200 mm in width, position the test mass (5.11) at the geometric centre of the unloaded half part of the bed base.	NOT TEST	
7. Horizontal durability test of bed frame	Domestic: F1:150 N F2: 150 N Cycles: 2500 Apply two horizontal forces F1 and F2 alternately by means of the small loading pad (ϕ 100mm) at the unrestrained bed end and perpendicular to the longitudinal axis of the side rail. See Figures 13 and 14. The loading points shall be at the height of the upper surface of the bed base, 100 mm inboard from the outside plane of the end member (see Figure 14). One application of the force in each direction represents one cycle.	NOT TEST	
8. Vertical impact test	Domestic: Height: 180 mm Cycles: 10 The impactor (5.6) shall be lifted to the height as specified, let it drop freely onto the mattress, at the following positions A,B,C,D and most likely failure point Drop the impactor at each of the selected positions of impact (see Figure 15). The number of cycles shall be as specified in the requirements document or should be as suggested in Annex A. Each of the 4 selected D points in Figure 15 shall be impacted. The impactor shall be permitted to fall freely but may be guided by a guide rail.	M	
9. Durability of mechanisms for lifting bed bases	Domestic: m1: 5 kg m2: Cycles: 3 500 This test is only applicable to bed bases that are designed to be lifted by the user through a mechanism (e.g. gas lift).	NA	
10. Durability of sofa-bed function	Domestic: Cycles: 3 500 EN 13759: Furniture Operating mechanisms for seating and sofa-beds	NOT TEST	
11. Durability of electrically operated beds	Domestic: Cycles: 5 000 per function. After testing in accordance with 6.5.2 and Table 2 (test no. 11), the electrically operated function shall continue to operate.	NA	
12. Stability	Domestic: F1:600N; F2:600N F3:20N; F4:20N Apply two downward forces F1 and F2 simultaneously by means of the small loading pad (ϕ 100mm) at point A and point B, 60 mm behind the front edge of the bed sides. At each loaded position, apply two outward forces F3 and F4 simultaneously for at least 5 s along a horizontal line extended forward from the point where the base of the loading pad meets the upper surface of the bed side/bed frame. The forces shall be as specified in the requirements document or should be as suggested in Annex A. See Figure 6 a) and Figure 7. If the construction of the bed is symmetrical in width direction, perform the test at one side only. Repeat the same test at one end of the bed. If the headboard and footboard are of the same construction, perform the test at the side containing the footboard. Note:When the footboard is higher than the mattress or the base the force(s) shall be	M	

1. Overall View





2. Dimension



3. Testing – Seating position

a. Forwards overturning $F1=60\text{KG}$, $F2=20\text{N}$ Result: Pass



b. Sideways overturning, all seating without arm rests $F1=60\text{KG}$, $F2=20\text{N}$ Result: Pass



c. Rearwards overturning all seating with back rests F1=60KG, F2=180N Result: Pass



d. Seat static load and back static load test F1=130KG F2=450N Result: Pass



e. Seat front edge static load test F1=130KG Result: Pass



f. Variation for couch or bench F1=130KG F2=75KG F3=450N Result: Pass



g. Leg forward static load test $F1=1000N$ $F2=400N$ Result: Pass



h. Leg sideways static load test $F1=1000N$ $F2=300N$ Result: Pass



4. Testing – Ben Position

a. Vertical static load test on bed base $F=1400N$ Result: Pass



b. Vertical static load on side rail $F_1=1200N$ $F_2=1200N$ Result: Pass

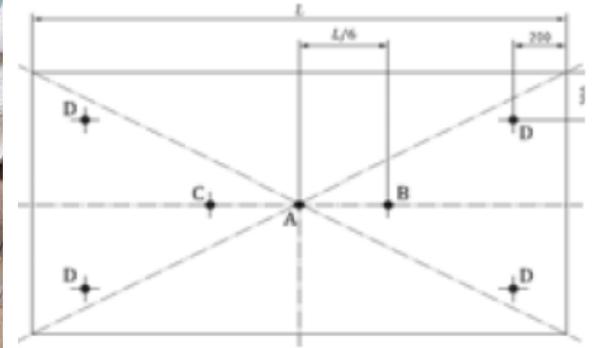


c. Horizontal static load test for beds without headboards F1=75KG, F2=300N Result: Pass



d. Vertical impact test Height: 180mm Result: Pass





e. Stability, $F_1=600N$, $F_2=600N$, $F_3=20N$, $F_4=20N$ Result: Pass

