

**FURNITURE CATEGORY MANAGEMENT TEAM (FCMT)**

# **TECHNICAL SPECIFICATION**

## **Repair & Renovation of Furniture**

### **Specification Number 4000**

Furniture Category Management Team (FCMT)  
Spruce 3b # 3119  
Abbey Wood North  
Bristol  
BS34 8JH

Commencement Date :

Issue No 1 dated



MINISTRY OF DEFENCE

Amendments to Specification		
Issue N°	Clause	Detail

## Contents

### **1 Scope**

- 1.1 This specification sets out the requirements for the renovation of:
- a) Timber Furniture
  - b) Upholstered Furniture
  - c) Metal Furniture incl. Security

### **2 General**

- 2.1 The Supplier shall incorporate requirements of latest legislation, particularly health & safety, in the process of repair and renovation.
- 2.1.2 All references made to British, European and International Standards shall be deemed to be the latest editions, it shall be the responsibility of the Supplier to ensure compliance with the latest standards and tests, manufacturing and product labelling criteria.
- 2.2 The Supplier shall not vary or depart from the described in this specification without the prior consent in writing from the Customer.
- 2.3. With regard to quality the Supplier must clearly understand that any work which is not in the opinion of the Customer up to standard shall have to be reworked to the Customer's satisfaction at the Suppliers expense.
- 2.3.1 The Provider shall ensure that throughout all periods where the Repair item is in his Custody that: The Repair item is insured and kept insured, for its full replacement value against all risks (including loss or damage to the Repair item).
- 2.4. General Repair Description; Prices in the Schedule of Requirement shall incorporate technical specifications as detailed under the relevant sections of this document.
- In summary prices are to include all labour, transport, workshop type materials such as fabric, foam, adhesive, stripper, filler, sandpaper, screws, dowels, blocks etc inserts, lacquers, paints and commercial packaging.
- 2.4.1. New Top prices will be the cost of a new top to match the existing item as near as possible if the current top cannot be repaired.
- 2.4.2 General Repair plus Upholstery **Prices** will include paragraph 2.4 General Repair, Section 4 for upholstering item/s and Section.5 for Divan Beds
- 2.4.3 Spare Parts Prices the most common spare parts are listed for pricing. This is not an extensive list
- 2.4.4 Under Single Living, Mess and Barracks (SLA) and Antique Furniture will be classed as a Special Task and a Request for Quote will be raised for Renovating the item/s. (e.g. Mess dining tables and chairs, metal lockers).
- 2.4.4.1 In the event that the quotation is acceptable, the Customer will inform the Supplier in writing to proceed with the repair/renovation, at the price quoted.

## 2.5 Beyond Economical Repair

Should any Article be found by later inspection at the Supplier's premises to be Beyond Economical Repair (BER), or if for any reason it should be decided at any stage to discontinue repair, the Supplier will notify the Demanding Customer by issuing a BER certificate.

- 2.5.1 On notification from the supplier that the item/s has been classed BER the Demanding Customer Authorise the disposal of the item and the Supplier will be paid the agreed price as detailed in the SOR

## 3 Timber Product Renovation

- 3.1 The Supplier shall have the capability of working with a range of timber materials including manufactured boards, veneers, MFCs, solid timber and lippings.

- 3.2 Using traditional skills as well as modern methods the Supplier is expected to undertake:

- a) Repairing of loose joints
- b) Replacing of damaged or missing components
- c) Veneering and matching veneers and timbers
- d) Woodturning and Carving
- e) Repairing or replacing Desk Leather/Vinyl

- 3.2 All timber used in the renovation or repair of the products must be obtained from regions and countries that operate legal and documented long-term sustainability programmes.

- 3.3 Any particleboard used in the renovation or repair of these products shall comply with the requirements specified in 'BS EN 312:2010 Particleboards Specifications Type P2 - Requirements for boards for interior fitments (including furniture) for use in dry conditions'. Additionally, particleboard shall meet requirements for Class E1 formaldehyde release as specified in this standard.

- 3.4 Any MDF used in the renovation or repair of these products shall comply with the Type MDF LA requirements specified in BS EN 622-5:2009 'Fibreboards Specifications Part 5 - Requirements for dry process boards (MDF)'. Additionally, MDF shall meet requirements for Class E1 formaldehyde release as specified in BSEN 622-1:2003 Fibreboards Specifications Part 1 General requirements.

- 3.5 Repair to wood surfaces shall be, but not restricted to, the removal of scratches, dents, chips, watermarks and burns that can be undertaken to a professional standard.

- 3.6 Products with fractured components shall be considered for disposal if spare components are not available to make good the item.

- 3.7 "Beyond Economic Repair (BER)" products may be used to provide spare parts.

### 3.8 Preparation

- 3.8.1 All fabric and fillings shall be removed from the item.

- 3.8.2 Old lacquer finishes shall be thoroughly removed from showwood (external surfaces) provided internal surfaces are not damaged or scratched.

- 3.8.3 All carcass and framed joints shall be closely examined, those found to be open or loose, shall be dismantled, rebuilt and re-glued where appropriate to provide a sound framework.

- 3.8.4 Screw fixed joints shall be sound. Fixing holes may be repaired by filling with a suitable timber plug, firmly bonded into position. All fixing screws and bolts are to be of correct length and

where appropriate, their threads must be sufficient to properly fill the nuts, tee-nuts or threaded inserts.

- 3.8.5 Damaged areas are to be repaired, damaged or broken dowels, rails or tenons replaced. Missing or defective parts such as corner blocks and drawer stops are to be replaced.
- 3.8.6 Replacement of components through salvage shall be made where appropriate.
- 3.8.7 Surface damage to solid timber components of products may be removed by light skimming or abrading with any sharp arises softened. Small bruises in solid or veneer materials shall be removed using the steam heat method, care being taken to ensure the bond between veneer and substrate is not affected. Deep indentation shall be made good with either solid or veneer inserts of suitable shape, colour and grain match, closely fitted and firmly bonded into position. A suitable hard stopping may only be used to fill very minor cracks or holes.
- 3.8.8 After filling, show wood surfaces shall be 'sanded' smooth ready to accept the lacquer finish.
- 3.8.9 When surfaces require re-veneering, "Rift", "Quarter" or "Through" cut veneers either book matched or slip matched shall be used with all veneers trimmed to exclude sap.
- 3.8.10 All surfaces shall be finished with a clear lacquer to give a natural appearance.
- 3.8.11 All hardware (handles and locks etc) shall be removed prior to sanding, finishing work.
- 3.8.12 All re-assembled and renovated/repared items shall stand square and rigid with gap free joints; drawers and doors shall be fitted correctly and function smoothly with minimum parallel and aligned clearance.
- 3.8.13 All screw fixings shall be tight and sound.

### **3.9 Re-Finishing**

- 3.9.1 Final polishing is to be executed sympathetically.
- 3.9.2 The Supplier is to have the capability of:
  - a) Applying modern nitro-cellulose finishing or water-based finishing;
  - b) Colour stain matching;
  - c) Reviving existing finishes;
  - d) Retaining patination;
  - e) French and Wax polishing;
- 3.9.3 Products with timber finishes such as Afrormosia, Mahogany, Rosewood and Oak shall be re-finished using modern clear A/C wood finishes.
- 3.9.4 Products featuring simulated finishes such as Rosewood or Mahogany stain on Oak shall be recreated using an appropriate stain then re-finished using clear wood finishes.
- 3.9.5 When the customer requests matching to an existing item, the Supplier may be expected to provide stained and finished boards so that approval can be provided in advance to any repair and renovation work.
- 3.9.6 All finished surfaces shall be smooth and free from extraneous material and crazing.
- 3.9.7 Fittings and components previously removed shall be cleaned and re-attached.
- 3.9.8 Those that no longer function shall be replaced with new.

## **4 Renovation of Upholstered Furniture.**

- 4.1 This section details the requirements for the renovation of products based on timber or metal frameworks, including upholstered divans.
- 4.2 All existing upholstery material shall be removed and replaced with new compliant materials including foams and interliner (if appropriate). The fabric removed shall be replaced with similar fabric. All fabrics must comply with the appropriate table in Section 7.
- 4.3 The Supplier is to have the following upholstery capabilities/services:
- a) Modern & Antique Furniture Upholstery
  - b) Refilling cushions with a variety of fillings
  - c) Fitting of replacement springs and spring units
  - d) Supplying and fitting of replacement castors and castor blocks
  - e) Minor cosmetic re-upholstery when fabrics are damaged, including burns
  - f) Replacing broken or damaged buttons on Chesterfields suits
  - g) Fitting of trims, valences and the re-stitching of seams and piping

#### **4.4 Preparation**

- 4.4.1 Frames shall be renovated in accordance with Section 3 or 4 of this specification.
- 4.4.2 Each product shall be renovated with due regard to the original process employed. All seats shall be removed and replaced using new webbing/springing, including spring units, spring canvas, scrim and cotton felt/wadding.
- 4.4.3 All upholstery shall be accurately and neatly fitted with staples fully driven home.
- 4.4.4 Raw edges must be turned under a minimum of 10mm and secured at 20mm centres.
- 4.4.5 Staples shall be positioned so that wherever possible they will be concealed.
- 4.4.6 Defective springing, slack webbing and canvas shall be replaced.
- 4.4.7 Foam shall be of similar size to the original and fabricated to achieve the correct final dimensions after normal compression in covering. Foam units on rigid bases shall be securely bonded to the base.
- 4.4.8 Foams shall conform to BS 3379: 2005 + A1:2011 (Severe), chair seats (Very Severe).
- 4.4.9 Upholstered composites shall conform to BS 7176: 2007 + A1: 2011 (hazard Level Medium, occasionally Hazard Level High).
- 4.4.10 Foam pads shall be made 5mm larger all round than their wooden bases and must be positioned to ensure that the cover is protected from sharp edges. Pads must be securely bonded to their bases with compatible adhesive.
- 4.4.11 Loose seats and stuff-over chairs shall have a minimum of 3 x 3 webs. Sprung seats shall be webbed to ensure bottom coil of spring is supported by 4 interlaced webs.
- 4.4.12 Seat webs shall be spaced within a maximum distance of 75mm between webs. Back webs shall be spaced with a maximum distance of 100mm between webs. Replacement suspension system shall be fitted in accordance with the manufacturer's instructions, rubber webbing to be spaced identical to the original design.
- 4.4.13 The ends of feet and hollow components shall be closed or capped. Where caps are used they must have an interference fit and not be vulnerable to accidents or deliberate removal.

- 4.4.14 Whilst all fully upholstered products are to be covered with the prescribed fabric, those products for use with stretch or tailored loose covers are to be covered with a Fire Retardant "Schedule 3" Interliner conforming to Table C of this specification.
- 4.4.15 Fire Retardant Schedule "3" interliner shall be a dark blue/black and the covering must be fitted with the warp vertical on backs and running from front to back of seats and arms

#### **4.5 Renovation of Divan Bases**

- 4.5.1 Damask or woven ticking shall be in accordance with BS EN 14976:2005.
- 4.5.2 All existing upholstery material shall be removed and replaced with new compliant materials.
- 4.5.3 Best practices shall be adopted in the re-upholstery of the divan bases. The renovated divan base shall be free from loose ends of sewing, protrusions of material or fastenings which may cause injury or discomfort.
- 4.5.4 To replace and repair broken internal struts where possible; to ensure the strength and durability of the divan bed is maintained.
- 4.5.5 When renovated, the divan bases shall comply with: BS 7177:2008 + A1:2011 (Medium Hazard)

### **5 Metal Product Renovation (including Security Furniture)**

- 5.1 This section covers the renovation of products manufactured from metal or products that have metal frames or components.

#### **5.2 Preparation**

- 5.2.1 All fabric and fillings shall be removed from upholstered products. Where applicable, timber platforms shall also be detached from frames.
- 5.2.2 Before any welding is undertaken dents shall be panel beaten out. Sheet surfaces shall be left level and flat, requiring the minimum amount of compound filling. Small perforations and dents that cannot be beaten out shall be filled using compound filler.
- 5.2.3 Broken or weak welded joints shall be cleaned, correctly aligned and re-welded. Welds shall have full penetration, be neatly executed, free from holes and spikes and dressed smooth.
- 5.2.4 Fittings and mechanisms shall be inspected, cleaned and if required lubricated. Where practicable, fittings shall be repaired and restored to near original condition. Threaded inserts and studs shall be inspected and if not fully functional, replaced, all fixing screws and bolts are to be of correct length and where appropriate, their threads must be sufficient to properly fill the nuts, tee-nuts or threaded inserts
- 5.2.5 Defective locks, mechanisms (excluding Security Furniture locks) shall be replaced.
- 5.2.6 Painted surfaces shall be degreased, loose paint and corrosion removed, and surfaces cut back to receive the final finish. Existing finishes may remain provided they are sound & flat.
- 5.2.7 All metalwork shall be completely free from rust and scale and properly degreased and phosphated prior application of the final surface finish to ensure good adhesion of the final stove enamelled or epoxy-powder powder coated finish.
- 5.2.8 Before the application of any new paint, re-assembled products shall be checked for alignment, rigidity and safety.

5.2.9 The bottom of all steel carcasses furniture shall be prepared to prevent damage to floors.

### **5.3 Re-Finishing**

5.3.1 Containers including internal fittings such as shelves shall be coated inside and out. Components with electroplated surfaces shall be removed or masked (as appropriate) before application of coatings.

5.3.2 Fittings and components previously removed shall be re-attached after re-finishing.

5.3.3 In order to achieve the strength of bond required, the coating (powder or enamel) shall be applied in a factory environment and require stoving.

5.3.4 The customer shall determine the choice of colour.

5.3.5 The surface finish shall be non-reflective, flat, smooth and free from any imperfections with high durability and resistance to impact and abrasion.

5.3.6 The paint finish shall have a low and consistent level of gloss and the finish shall meet the performance requirements of Table A.

## **6 Marking and Packaging**

6.1 The Supplier shall ensure that product marking is present after renovation.

6.2 Product marking shall be applied in such a way as to be difficult to remove. Permanent printing on a label, sewn, stapled or rigidly fixed may be used.

6.3 Upholstery products shall be marked by means of a secure printed linen label.

6.4 Product marking is to detail:

Supplier Name
Product Code
NATO Stock Number
Date of Manufacture/Supply/Renovation
Guarantee Period
Batch Number
Chain of Custody (where appropriate)

6.5 In addition for upholstered products the marking shall include the BS 7176:2007 + A1:2011 (Medium Hazard). or BS 7177:2008 + A1:2011 (Medium Hazard) flame retardancy rating that the product complies with the "Carelessness Causes Fire" warning swing ticket.

6.6 Regarding packaging all products shall be packed and protected to ensure delivery to the final destination in an undamaged condition. For delivery with installation orders this protection may be provided by means of blanket wrapping, for delivery only orders a commercial trade package shall be required.

## **7 Performance Standards for Finishes and Fabrics**

7.1 Detailed below are the performance criteria for Surface Finishes (Metal & Timber) and Upholstery Fabrics:

Surface Finish - Metal		
Table A	Standard	Performance
i	BS EN 1518:2011	Scratch: 3000g Load
ii	BS 3900 Pt E3:1973	Impact: Indentation 2.5mm
iii	BS 3900 Pt E11:2007/BS EN ISO 6860:2006	Bend: 25mm from apex
iv	BS 3900 Pt E6:2006/BS EN ISO 2409:2007, Clause 6	Cross Cut Classification O

Upholstery Fabric Type - Velour			
Table B	Test	Standard	Performance
	Fabric Classification	BS 2543:2004	Severe Contract

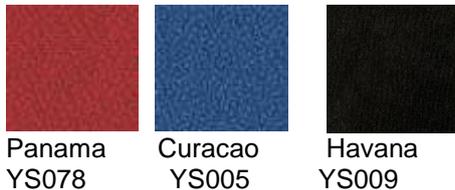
Upholstery Fabric Type - Interliner			
Table C	Test	Standard	Performance
	Flammability (preferably inherently Fire Retardant)	The interliner shall conform to Schedule 3 of the Furniture (Fire) and (Safety) Regulations 1988 (1989) (1993). BS7176:2007 – Medium Hazard	

Upholstery Fabric – Vinyl			
Table D	Test	Standard	Performance
	Flammability (preferably inherently Fire Retardant)	BS 7176:2007 + A1:2011	Medium Hazard

Upholstery Fabric Type - Plain			
Table E	Test	Standard	Performance
i	Fabric Classification	BS 2543:2004	Severe Contract

## Fabric and Colour Chart Guide

### Colours available in Camira fabric Xtreme or similar



### Chieftain fabrics Just Colour Vinyl or similar



### Agua Libra -Velour or similar

