## Document ref **INSTRUCTIONS FOR USE** IFU-021b FOR THE CARE, HANDLING AND REPROCESSING OF OLTON rev 1 (CRN1432) RE-USABLE BOLT CUTTERS 10/06/2025 These instructions apply only to re-usable Bolt Cutters Product number 14-2922-00 supplied by Bolton INSTRUMENT Class 1 **DEVICE(S)** CLASSIFICATION Surgical Limited. Bolt cutter -- A re-usable, heavy-duty, hand-held, manually operated surgical device intended for use to cut orthopaedic wires, rods **INTENDED USE** and pins or bolts up to 6mm diameter soft wire or, up to 4mm diameter hard wire. Bolton Surgical re-usable Bolt Cutters are Bolton Surgical re-usable Bolt Cutters are supplied non-sterile LATEX **HOW SUPPLIED** LATEX FREE, including their packaging. and must be cleaned and sterilised prior to each use. WARNING: If this device is/was used on a patient with, or suspected of having Creutzfeld Jakob Disease (CJD), the device cannot be re-used and must be destroyed due to the inability to reprocess or sterilise to eliminate cross-contamination risk. These devices are intended for use only by appropriately qualified surgical practitioners. • Do not use the instrument if, in the opinion of the surgical practitioner, patient safety risks outweigh the benefits. • Risk of infection – Do not use any surgical instrument showing signs of corrosion or inadequate decontamination. WARNINGS · Bolt Cutters are heavy and create multiple pinch points. Keep hands, feet and other body parts clear at all times. AND Guard against the risk of off-cuts of metal being ejected at high speed, causing injury to the patient, operator or bystanders. CONTRA-· Follow instructions and warnings as issued by manufacturers of any decontaminants, disinfectants and cleaning agents used. **INDICATIONS** Wherever possible avoid use of mineral acids and harsh, abrasive agents. When handling biologically contaminated instruments and reprocessing medical devices always handle with care wearing appropriate protective gloves, eyewear and clothing in accordance with local Health & Safety procedures. Wear safety glasses whilst using Bolt Cutters. Keep by-standers, hands and feet clear of the cutting area. **IMPORTANT** Before use make sure that the cutting edges are intact and not visibly chipped or cracked and that all pivots are operating firmly, SAFETY without looseness. INSTRUCTIONS • Do not attempt to cut with the piece positioned at the tip of the jaws (A). This will increase the cutting effort required and may result in chipping of the tungsten carbide cutting edges. To minimise the cutting effort required, position the piece to be cut as far towards the back of the jaws as possible (B), Avoid cutting diagonally and keep cutter jaws at right angles to the piece. . Do not apply a twisting motion during use to augment the cutting action. This may twist the jaws out of alignment and/or chip the cutting edges. Do not attempt to take a full cut on a metal when the hardness is unknown. • For cutting soft wire (eg Kirschner wires, spinal rods, tibia head screws, bolts, pins etc) to 6mm diameter maximum or hard drawn wire to 4mm diameter maximum. Refer to document ref MDL065 available at www.boltons.co.uk. • Do not attempt to use a Bolt Cutter to cut wire or other metallic items that are beyond the stated capacity of the cutter. Such LIMITATIONS mis-use may result in over-stressing the instrument causing misalignment or cracks or other irreparable damage or failure of the **OF USE** instrument as well as unnecessary stress to the patient. Do not use damaged Instruments. Repeated reprocessing has minimal effect on the service life of surgical instruments. End of useful service life is normally determined by wear and damage in use. (See 'INSPECTION' below) There are no recommended limitations on the number of reprocessing cycles. **INSTRUCTIONS: PREPARATION** • Before first use, the re-usable device(s) covered by this IFU must be cleaned, inspected and sterilised in accordance with the **FOR FIRST USE** At point of use, remove gross soil using absorbent wipes. Wherever possible, do not allow blood, surgical debris or bodily fluids to dry on the instruments. For best results and to maximise their service life reprocess instruments immediately after use to minimise the potential for drying before cleaning. FROM POINT • If transfer to reprocessing is likely to take time, consider covering the instruments with a damp cloth or use an enzymatic foam **OF USE** spray cleaner to help prevent soil from drying or, soak in an enzymatic solution (prepared according to the manufacturer's instructions) to help facilitate cleaning. Do not leave instruments soaking in saline or chlorinated solutions. Avoid mechanical damage during transportation to the processing area (e.g. do not mix heavy devices with delicate items). Pay particular attention to cutting edges to avoid injury and damage to or by the instrument. Avoid contamination or cross contamination risk by transporting used instruments for reprocessing in closed or covered containers. · Whenever possible automated cleaning methods are preferable to manual methods to provide a more consistent and reliable process and, reduce staff exposure to contaminated devices and the cleaning agents used. Use suitably authorised washer-disinfector machines and low foaming, non-ionising cleaning agents and detergents following the manufacturer's instructions for use, warnings, concentrations and recommended cycles. Surgical instruments covered by these instructions can withstand alkaline cleaning agents up to 12.5 pH. Bolt Cutters covered by these instructions can withstand thermal disinfection at 90°C to 95°C for a minimum of 1 minute. AUTOMATED Load Bolt Cutters carefully in the open position for cleaning so that the instruments can drain. **CLEANING** • Place heavy instruments with care into the bottom of containers, taking care not to overload wash baskets. Avoid contact between devices if movement during washing could cause damage or impair the washing action. • Soft, high purity water which is controlled for bacterial endotoxins or mains supplied potable tap water is suitable for use in the final rinse stage. • On completion of the cleaning cycle, visually inspect each device for dryness and any remaining soil. If soil remains, repeat the cleaning process. Remaining wetness may be removed with medical grade compressed air or by heating in an oven below 110°C . Manual cleaning is not advised if an automatic washer-disinfector is available. If this equipment is not available, use the following process: 1. Use a double sink system (wash/rinse) dedicated for instrument cleaning (not used for hand washing). Ensure that the water temperature does not exceed 35°C. **MANUAL** 2. In the first sink, keeping the bolt cutter submerged, with an autoclavable brush, apply suitably approved cleaning solution to **CLEANING** all surfaces until all soil has been removed, always brush away from the body. Ensure pivot joints are thoroughly cleaned in both open and closed positions. 3. In the second sink, rinse with soft, high purity water which is controlled for bacterial endotoxins or, mains supplied potable tap water. Ensure thorough rinsing, then carefully hand dry or use a drying cabinet. CLEANING After cleaning, visually inspect all surfaces paying particular attention to joints for complete removal of soil and fluids. If ANY INSPECTION soil or fluid is still visible, return for repeat decontamination.

## · Apply surgical grade lubricants to pivot joints in accordance with the lubricant manufacturer's instructions Lubrication is essential every time the Bolt Cutter is re-processed. Only lubricate when the Bolt Cutter is dry. MAINTENANCE Proper cleaning, handling, sterilisation and standard routine maintenance will ensure the Bolt Cutter performs as intended and will maximise its useful life. Before each use, visually inspect and check - All surfaces for damage, wear, staining and corrosion. Tungsten Carbide cutting INSPECTION edges are free from nicks, cracks and present a continuous edge. Jaws and cutting edges align correctly. The Bolt Cutter opens and closes smoothly and firmly without excess play. Remove for repair or replacement any worn out, cracked, fractured or otherwise damaged instruments. Note: If a used instrument is returned to Bolton Surgical Ltd for any reason, the instrument must be decontaminated and sterilised and be accompanied with the relevant documented evidence. **PACKING FOR** All instruments to be packed following local protocol, in accordance with ISO11607-1 STERILISATION Use suitably authorised vacuum autoclave operating at 134°C to 137°C, with a minimum holding time of 3 minutes (see 'Additional Information' below for alternative sterilisation parameters) Bolton Surgical Bolt Cutters are capable of vacuum autoclave sterilisation operating at 134 - 137°C, for a minimum holding time of 3 minutes – always follow the instructions of the machine manufacturer. STERILISATION Ensure instruments are dry before sterilisation. Sterilisation cases should be loaded just prior to the sterilisation step. When sterilising multiple instruments in one autoclave cycle, ensure that the steriliser manufacturer's stated maximum load is not exceeded. **STORAGE** • Ensure instruments are dry before storage and stored in dry, clean conditions at an ambient room temperature. Do not soak instruments in hot water, alcohol, disinfectants or antiseptics to avoid coagulation of mucus, blood or other body fluids. Do not exceed two hours soaking in any solution. Do not use steel wool, wire brushes, pipe cleaners or abrasive detergents. **GENERAL** The quality of the water used for diluting cleaning agents and for rinsing medical devices should be carefully considered. **CLEANING** Mineral residues from hard water can result in staining of the device or prevent effective cleaning and decontamination. De-**PRECAUTIONS** scaling agents, if used, will not harm the devices. • If practicable, avoid processing instruments of different metallic composition close together to minimise risk of electrolytic action between the metals that can result in corrosion. Handle Bolt Cutters carefully to prevent damaging the cutting edges and tips. . Use caution during cleaning and sterilisation. A nonfibrous sponge should be used to wipe off all blood and debris. Other forms of cleaning\*\* (i.e. Ultrasonic) and sterilisation (i.e. Low temperature steam and Formaldehyde, Ethylene Oxide and Gas Plasma) are available. However, always follow the instructions for use as issued by the equipment manufacturer and always consult with them if in any doubt over the suitability of any process used. Alternative sterilising parameters\*\* - vacuum autoclave at 132°C to 135°C, with a minimum holding time of 4 mins. ADDITIONAL Cleaning and sterilising guidelines are available in UK Health Technical Memorandum - HTM01-01 and ISO17665-1 INFORMATION \*\* Products covered by this IFU have not been validated for these forms of cleaning and sterilisation. Note: It is the responsibility of the reprocessor to ensure that the reprocessing that is actually carried out, using the equipment, materials and personnel in the reprocessing facility, achieves the desired results. This requires validation and routine monitoring of the process. Likewise, any deviation by the reprocessor from the instructions provided must be properly evaluated for effectiveness and potential adverse consequences. Instruments can be returned to Bolton Surgical for repair but *must* be decontaminated and sterilised and be accompanied with the relevant documented evidence. Failure to supply decontamination/sterilisation certification will result in products MAINTENANCE being returned untouched for re-processing and delayed repairs. **AND REPAIR** Repairs carried out by Bolton Surgical are guaranteed for 12 months to be free from defects in workmanship, materials and parts used to carry out the repair providing the instrument is used normally for its intended surgical purpose. Any repair parts or workmanship proving to be defective will be replaced or repaired, at our discretion, at no charge to the customer. Bolton Surgical re-usable surgical instruments are guaranteed for a period of 15 years from the date of purchase (terms & conditions apply) against product failure resulting from defective materials and workmanship, when used by persons with the required LIMITED specialist knowledge and training, for the purpose for which the device is intended and, properly maintained in accordance with this WARRANTY IFII Liability is refused for products which have been modified as compared to the originally supplied product, misused, incorrectly handled or, used for a purpose that differs in any way from product's stated Intended Use. Customers wishing to return goods for any reason must do so in accordance with Bolton Surgical's Returns Policy (ref. POL 009) a **RETURNED** copy of which is supplied with each order or, is available online by visiting www.boltons.co.uk. GOODS POLICY Determination of a product defect will be made by Bolton Surgical Ltd. End of service life instruments must be decontaminated and sterilised prior to disposal. Disposal should be in accordance with **DISPOSAL** local waste management protocols. INCIDENT Report any serious incident that has occurred in relation to the use of the device to the manufacturer and the competent authority REPORTING of the country in which the user and/or patient is established and in accordance with the reporting rules applicable in that country. Except where indicated (\*\*), these instructions have been independently validated using a washer-disinfector operated in VALIDATION accordance with the recommendations included in this IFU, following the HTM 01-01 guidelines. The detergent used was 10.5pH. 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