

## RE-EVALUATING A ROBUST CLASSIC FROM A FRESH PERSPECTIVE



### TAKING A FRESH LOOK AT A HEAVY-DUTY CLASSIC – THE MOBILITY TROLLEY

Polstore has been successfully working with various worldwide military services since 1964 creating new products and installing specific military storage solutions and military equipment tool solutions. We recognise that as technology advances so do operational requirements, therefore it's appropriate to review existing storage solutions to ensure they remain fit for purpose for every client.

#### THE OPPORTUNITY TO TAKE A FRESH LOOK

When a storage solution does need replacing, it's an opportune time to review all the features and functionality. Of course, our products will have been best in class when they were originally manufactured, but with many years (even decades) having passed, technology and development will have moved on significantly. We don't rest on our laurels - innovation is at the heart of what we do. Our team will complete a design review with a view to improving performance and longevity.

An example of this continuous improvement was with 198 maxi boxes commissioned by the USAF. With 12 long years of heavy use, the 198 maxi boxes were showing signs of their age and replacements became urgently required.

It was important to address the key areas of fatigue and to put in place new features to prolong their use. The design review focused on the locking system, chassis, and parking brake.

#### A NEW AND IMPROVED LOCKING SYSTEM

The external vertical hinged NATO locking system was open to abuse when keys were lost or simply left back at the workshop. The NATO lock was severely damaged by being prised open with a crow bar, which also impacted the cabinet itself.

This layer of security was deemed not required so we replaced the lock with a standard issue cam-lock which we use on Polstore drawer cabinets. As well as being extremely secure, it is also tamper-proof. Should the lock be damaged by misuse, it will completely lock the box out and prevent it being used. It can then be repaired in around 10 minutes, using basic tools and standard components.



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### A STRONGER CHASSIS, MORE RESILIENT TO DAMAGE

A common challenge to productivity was down time resulting from punctures to the standard tubed tyres. By replacing them with heavy duty run flat tyres on re-enforced rims, the team improved performance and created the opportunity to remove the spare wheel as it was no longer required.

The design review took a closer look at the areas of stress and corrosion. Some places were re-enforced to provide a stronger chassis, and a redesign removed potential areas for water and/or sand ingress. Rather than repaint in a smooth finish, we painted the chassis in a heavy-duty texture powder coat system, which is more resilient to knocks and abrasions.

### PARKING BRAKES WHICH IMPROVED SAFETY

The original parking brake was a standard wheel locking system applied to one of the rear wheels. We decided the best way to improve the effectiveness of the brake was to replace it with a hydraulic handbrake system. The disc fitted directly to the new rear axle, braking both rear wheels rather than one. This improved safety and by moving to a solid rear axle (instead of the corner stub axles) a much stronger and more rigid chassis was created.

### ANTI ROLL TOW BAR MODIFICATION

Crazy as it seems but these trolleys get transported around base and flight line continually in all weather conditions – maintenance never stops. They do some mileage and occasionally accidents do happen. Rolling one of these units takes some doing and when it happens, due to the robustness, parts can be replaced rather than a full replacement.

It was identified by the operatives and Polstore design team that to reduce this rolling risk a modification on the tow bar connection from trolley to vehicle was necessary. As simple as increasing the tow bar ring thickness we managed to create a more secure fixing reducing the risk of roll in wet and icy conditions.

The units are now in service with the USAF and should provide them with at least another decade of heavy use as well as improved functionality.

### A NEW PERSPECTIVE OF A STORAGE CHALLENGE

If your unit has a storage challenge where the existing solution is no longer meeting your needs, the team at Polstore wants to hear from you. Allow us to bring our decades of experience and passion for solving storage problems and give your challenge a fresh perspective.

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STORAGE SYSTEMS



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## MILITARY STORAGE SPECIALISTS SINCE 1964

Since 1964 Polstore has been providing high end military storage & tool solutions helping Armed forces prepare for the way ahead. Whether it be land, air or sea our aim is to create efficiency, reduce waste, lower overheads, improve attitude and motivate military personnel within the workplace.

- CONTAINER CONVERSIONS
- STORAGE CUPBOARDS
- TRAILERS & TROLLEYS
- MOBILE TOOLBOXES
- WEAPONS STORAGE
- COVERS/ BAGS
- WAREHOUSE FIT OUTS
- STEEL MESH CAGES
- ELECTRONIC LOCKING
- CUSTOM FOAM INSERTS
- SHELVING & RACKING
- BESPOKE SERVICES