

# INSPECTION AND MAINTENANCE TOOLS

## Introduction

Aljac Fuelling Components Ltd offer a range of special tools to assist in the inspection, maintenance and overhaul of Eaton's Carter® range of ground fuelling equipment.

There are a number of inspection requirements contained within the JIG Regulations and other inspection recommendations contained within Eaton's Carter® equipment maintenance manuals. Some of the tools are designed to simplify these inspection actions and use simple Go/No-Go gauges which removes the need for operators to interpret results. Other tools are designed to simplify, and therefore speed up maintenance actions.

## Pit Valve Wear Gauge

The JIG Regulations (JIG 2) issue 12 Appendix A14 state that the outlet adaptor of a Hydrant Pit Valve must be tested annually for wear. The test should be undertaken using a manufacturer's approved gauge. This gauge has been developed as a simple Go/No-Go test gauge for use on all models of Eaton's Carter® range of Hydrant Pit Valves including the commonly used 60554 series.

The gauge has two sides. One side checks the outside diameter of the API adaptor and the other side checks the relation between the top sealing face and the lower face where the breakaway lugs of the Hydrant Coupler interface with the API adaptor.

**Part Number: 60554ST1**



## Intake Coupler Wear Gauge

The JIG Regulations (JIG 1) issue 12 state that Hydrant Couplers must be checked for wear at least annually using the appropriate wear gauge. This gauge has been developed as a simple go/no-go test gauge for use on all of Eaton's Carter® range of Hydrant Couplers including the 60700, 64900 and 64910 models.

The gauge has two parts. One part checks wear on the Hydrant Coupler housing and the interfaces of the breakaway lugs and the other, smaller part checks for wear of the outer face of the breakaway lugs.

**Part Number: 61362**



## Pilot Removal Tool

The latest editions of pilots installed on Eaton's Carter® range of Hydrant Pit Valves all have an improved design which separates fuel in the Hydrant Pit Valve from air in the deadman system. In order to achieve this the complete pilots are separated at the fuel/air interface. The cage and spindle assembly is inserted into the Hydrant Pit Valve body and retains fuel. The air system is contained externally in the pilot.

This tool allows for the quick and easy removal of the cage and spindle assembly from the Hydrant Pit Valve body.

**Part Number: T221790**

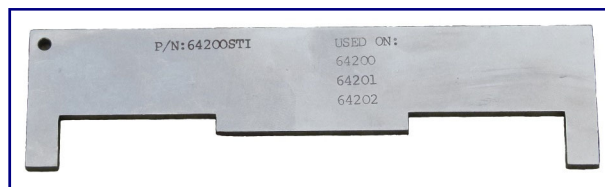


### **64200 Poppet Adjustment Tool**

The poppet on any Underwing Refuelling Nozzle must be set correctly after maintenance. If the poppet protrudes too far out of the Underwing Refuelling Nozzle it can fail to seal correctly when the nozzle is closed and stowed. If the poppet is set too far into the Underwing Refuelling Nozzle body then it can cause deformation of the nose seal which will lead to leakage when connected to the aircraft.

This tool enables a simple check to ensure that the poppet on Eaton's Carter® 64200, 64201 or 64202 Underwing Refuelling Nozzles has been set in accordance with the parameters set out in the maintenance manual.

**Part Number: 64200ST1**



### **60427/64348 Poppet Adjustment Tool**

The poppet on any Underwing Refuelling Nozzle must be set correctly after maintenance. If the poppet protrudes too far out of the Underwing Refuelling Nozzle it can fail to seal correctly when the nozzle is closed and stowed. If the poppet is set too far into the Underwing Refuelling Nozzle body then it can cause deformation of the nose seal which will lead to leakage when connected to the aircraft.

This tool enables a quick and easy check to ensure that the poppet on Eaton's Carter® 60427, 64348 or 64349 nozzles has been set in accordance with the parameters set out in the maintenance manual.

**Part Number: GF64000**



### **HECV Blockout Device**

The JIG Regulations (JIG 1) issue 12, Appendix A15 state that both primary and secondary pressure control systems on fuelling vehicles be tested independently. In order to test the secondary pressure controller the HECV must be disabled.

The Blockout Device is designed to disable all of Eaton's Carter® HECV's including the 47013, 44646 and 60129-1 models.

**Part Number: 61656**



### **Dry Break Quick Disconnect Wear Gauge**

Maintenance procedures require any that critical dimensions which are likely to experience wear during their use are checked periodically. The Dry Break Quick Disconnect assemblies are such parts because they are constantly in use whenever the nozzle is in use.

The Dry Break Quick Disconnect Wear Gauge provides a simple Go/No-Go test which checks dimensions in accordance with acceptable limits. For checking 60672-1 and 61154 models of Dry Break Quick Disconnect.

**Part Number: IF220351**



### **Quick Disconnect Splitting Tool**

In response to customer demand Aljac have developed this tool to aid the separation of the male and female sections of the popular 44315 style Quick Disconnect. The tool engages in the castellated ring on the male section of the Quick Disconnect and allows the operator to pull the ring down and rotate it in one easy movement.

**Part Number: EW00000440**



### HECV Piston Lapping Tool

Following maintenance of the Hose End Control Valve (HECV) and installation of new piston seals it is recommended that the seals be lapped in prior to flow testing. This reduces the likelihood of the HECV requiring multiple test runs in order to lap the seals in during testing and reduces time spent on the test rig. The low pressure spring temporarily replaces the HECV spring and the piston holder locates inside the HECV piston. The piston holder is used to rotate the piston at a low speed to lap the seals in.

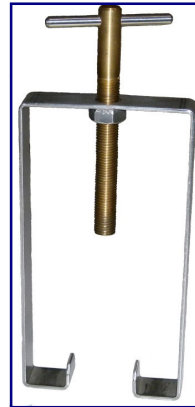
**Part Number: EW00000515**



### HECV Piston Lapping and Removal Kit

In addition to the Lapping Tool Kit Aljac have developed a simple tool to allow removal of the piston from an HECV in a safe and controlled manner. Ideally suited to smaller locations without well equipped workshops or service vans the tool is small and lightweight and designed to work with any of the HECV's in Eaton's Carter® product range. The kit comes complete with Lapping tool, EW00000515 and Piston Removal Tool.

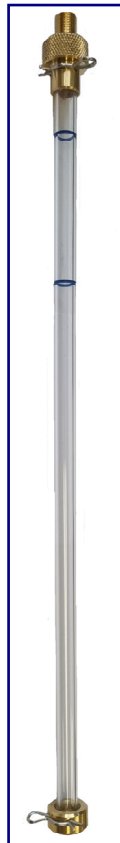
**Part Number: EW00000516**



### Swivel Ball Removal Tool

When disassembling an Underwing Refuelling Nozzle for maintenance it will often require that a swivel assembly is separated. This will release a number of ball bearings which are easily lost. This tool screws directly into the Underwing Refuelling Nozzle body and captures the ball bearings in the tube as they are released. The tool has two markers so the operator can easily check that the correct number of ball bearings are installed in each swivel. There is also a clip to secure the balls in the tube before they are re-installed.

**Part Number: EW00000517**



### Nozzle Opening Tool

This is a simple tool designed to allow easy opening of an Underwing Refuelling Nozzle poppet for maintenance purposes.

The tool is an ISO45 adaptor conveniently mounted on a handle.

**Part Number: EW00000460**

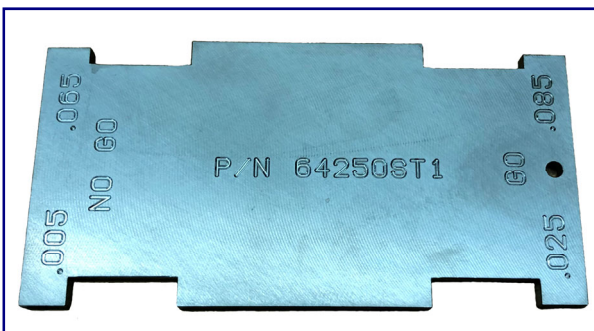


### **64250 Poppet Adjustment Tool**

The poppet on any Underwing Refuelling Nozzle must be set correctly after maintenance. If the poppet protrudes too far out of the Underwing Refuelling Nozzle it can fail to seal correctly when the nozzle is closed and stowed. If the poppet is set too far into the Underwing Refuelling Nozzle body then it can cause deformation of the nose seal which will lead to leakage when connected to the aircraft.

This tool enables a simple check to ensure that the poppet on Eaton's Carter® 64250 Underwing Refuelling Nozzles has been set in accordance with the parameters set out in the relevant maintenance manual.

**Part Number: 64250ST1**



### **Hexagon Key Set**

Eaton's Carter® range of products utilise American or Imperial type fasteners. Using incorrect Metric tools on these fasteners causes damage and will cause premature failure. In severe cases the fasteners can become so damaged that they become unusable and can render entire pieces of equipment un-serviceable.

Our Hexagon Key Set is a high quality set of tools manufactured from High Tensile Steel in the United States ensuring a long service life. The Hexagon Key set has a wider range of sizes than many inferior products on the market ensuring that all fasteners in Eaton's Carter® range of products are covered by the kit.

**Part Number: EW00000519**



### **Seal Removal Hook and Pick Set**

All of Eaton's Carter® range of products contain seals and precisely manufactured sealing surfaces. Using the wrong tools during maintenance activities can damage sealing surfaces irreparably. This high quality Hook and Pick set will make maintenance activities easier and reduce unnecessary damage. The kit contains four different tool heads and is stored in a convenient carry case.

**Part Number: EW00000518**

### **Torque Wrench Kit**

Many of Eaton's Carter® range of products contain fasteners which should be tightened to specific torque settings as detailed in the product maintenance manuals. Aljac has developed this kit to provide a comprehensive range of tool bits and two torque wrenches to enable the majority of fasteners to be correctly torqued during maintenance activities.

**Part Number: EW00000450**



If you would like further information please contact our Sales Department at [sales@aljac.com](mailto:sales@aljac.com)