



## EC-TYPE EXAMINATION CERTIFICATE

**Equipment or Protective System Intended for use  
in Potentially Explosive Atmospheres  
Directive 94/9/EC**

EC-Type Examination Certificate Number : **BAS00ATEX1228X**

Equipment or Protective System: **AUTOMATIC LUBRICANT DISPENSER**

Manufacturer: **A.T.S. ELECTRO-LUBE INTERNATIONAL INC**

Address: **7388 Wilson Avenue, Delta, British Columbia, Canada, V4G 1H3**

This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

The Electrical Equipment Certification Service, notified body number 600 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report N°

**99(C)0550 dated 5 December 2000**

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 50014: 1997 + Amds 1 & 2                      EN 50020: 1994                      EN 50284: 1999**

except in respect of those requirements listed at item 18 of the Schedule.

If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

This EC-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment or protective system.

The marking of the equipment or protective system shall include the following:-

 II 1 G EEx ia IIC T3 (-40°C ≤ T<sub>a</sub> ≤ 55°C)

This certificate may only be reproduced in its entirety and without any change, schedule included.

File No: EECS 4187/02/001

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances.



Electrical Equipment Certification Service  
Health and Safety Executive  
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom  
Tel: +44(0)1298 28000 Fax: +44(0)1298 28244  
Internet: [www.baseefa.com](http://www.baseefa.com) e-mail: [baseefa.info.eecs@hsl.gov.uk](mailto:baseefa.info.eecs@hsl.gov.uk)



I M CLEARE  
DIRECTOR  
18 January 2001



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**Schedule**

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**EC-TYPE EXAMINATION CERTIFICATE N° BAS00ATEX1228X**

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**Description of Equipment or Protective System**

The **Automatic Lubricant Dispenser** is a self contained, battery powered unit, designed to automatically deliver a lubricant at a rate set by the user. The unit is powered by AA size alkaline cells and comprises a double sided printed circuit board fitted with seven switches for setting the lubricant delivery rate and a LED to indicate correct operation. This electronic assembly is situated within the upper compartment of a cylindrical enclosure. Below this, sealed within a bellows assembly, is an electrochemical cell which generates gas at a rate determined by the electrical current passing through it. As the gas is generated within the flexible sealed bellows, it expands and forces the lubricant from the lower chamber, into the greasing point.

Three Automatic Lubricant Dispensers are covered by this certificate:-

- the Mini-lube 125cc 4oz,
- the Budget 250cc 8oz,
- and the Jumbo 500cc 16oz units.

The Mini-lube and the Budget use two cells in series and the Jumbo uses four cells in a series/parallel arrangement. All units use the same printed circuit board but different component values. The mechanical arrangement within the electronic chamber and the capacity of the lubricant dispenser differs between the models.

The cylindrical enclosure is moulded from semi-rigid nylon with the main lid secured by a large threaded ring sealed with 'O' ring. A small transparent threaded cover, also sealed with an 'O' ring, permits access to the switches and the LED to be viewed. The cylindrical enclosure is conical at the base and has a threaded outlet for the connection to a greasing point.

Intrinsic safety is ensured by limiting the power available from the alkaline cells by a current limiting resistor, segregation on the printed circuit board, and limiting the surface temperature of the components and the alkaline cells.

Use only Kodak KAA-P Photolife Alkaline-Manganese Dioxide cells, Duracell MN1500 AA Size cells or Duracell Ultra MX1500 AA Size cells.

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**Special Conditions for Safe Use**

The enclosure material does not meet the surface resistance requirements of the standard, but the shape, design and usage of the apparatus is not considered to present a potential electrostatic risk. The apparatus must not be installed in a position where it may be subjected to an excessive air/fluid flow that could cause an electrostatic charge to build up. A label is fixed to the apparatus warning against rubbing in use.



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**Essential Health and Safety Requirements**

<b>ESSENTIAL HEALTH &amp; SAFETY REQUIREMENTS not covered by standards listed in Section 9</b>		
<b>Clause</b>	<b>Subject</b>	<b>Compliance</b>
1.1.3	Changes in characteristics of materials and combinations thereof	Report No 99(C)0550 Clause 6.1.1.3
1.2.2	Components for incorporation or replacement	Report No 99(C)0550 Clause 6.1.2.2
1.2.5	Additional means of protection	Report No 99(C)0550 Clause 6.1.2.5
1.2.7	Protection against other hazards	Report No 99(C)0550 Clause 6.1.2.7
1.4.2	Withstanding attack by aggressive substances	Report No 99(C)0550 Clause 6.1.4.2

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**DRAWINGS**

<b>Number</b>	<b>Issue</b>	<b>Date</b>	<b>Description</b>
*ATS1-1	2	11/28/00	Circuit Diagram ATS12 RevG
*ATS1BOM Shts 1 & 2	2	Nov 28, 2000	Parts List ATS12 RevG
*ATS1-5	2	11/28/00	General Assembly
*ATS1-4	2	11/28/00	Component Layout
*ATS1-2	2	11/28/00	Track Layout Top ATS12 RevG
*ATS1-3	2	11/28/00	Track Layout Bottom ATS12 RevG
*ATS1-6	2	11/28/00	Mini - Contact Arrangements
*ATS1-7	2	11/28/00	Budget - Contact Arrangements
*ATS1-8	2	11/28/00	Jumbo - Contact Arrangements
ATS052	2	5/12/00	Group II Marking

\*These drawings are common to Certificate No MECS00ATEX4229X

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BASEEFA List Keywords  
2CONTRUN



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The examination and test results are recorded in confidential Report N°

**00(C)0327 dated 5 December 2000**

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 50014: 1997 + Amds 1 & 2      EN 50020: 1994      prEN 50303: 1999**  
except in respect of those requirements listed at item 18 of the Schedule.

If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

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The marking of the equipment or protective system shall include the following:-

 **IM1    EEx ia I    (-40°C ≤ T<sub>a</sub> ≤ 55°C)**

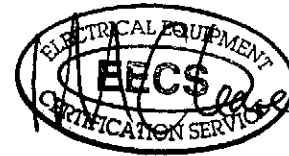
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File No: **EECS 4187/07/001**

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Electrical Equipment Certification Service  
Health and Safety Executive  
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom  
Tel: +44(0)1298 28000 Fax: +44(0)1298 28244  
Internet: [www.baseefa.com](http://www.baseefa.com) e-mail: [baseefa.info.eecs@hsl.gov.uk](mailto:baseefa.info.eecs@hsl.gov.uk)



**I M CLEARE**  
DIRECTOR  
18 January 2001



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**Schedule**

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**Description of Equipment or Protective System**

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The cylindrical enclosure is moulded from semi-rigid nylon with the main lid secured by a large threaded ring sealed with 'O' ring. A small transparent threaded cover, also sealed with an 'O' ring, permits access to the switches and the LED to be viewed. The cylindrical enclosure is conical at the base and has a threaded outlet for the connection to a greasing point. The enclosure is provided with a cylindrical perforated steel guard to prevent friction from generating an electrostatic charge.

Intrinsic safety is ensured by limiting the power available from the alkaline cells by a current limiting resistor, segregation on the printed circuit board, sealing the enclosure against the ingress of dusts and limiting the surface temperature of the components and the alkaline cells.

Use only Kodak KAA-P Photolife Alkaline-Manganese Dioxide cells, Duracell MN1500 AA Size cells or Duracell Ultra MX1500 AA Size cells.

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**Special Conditions for Safe Use**

The dust seals must be maintained in service.



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1.2.2	Components for incorporation or replacement	Report No 00(C)0327 Clause 6.1.2.2
1.2.5	Additional means of protection	Report No 00(C)0327 Clause 6.1.2.5
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1.4.2	Withstanding attack by aggressive substances	Report No 00(C)0327 Clause 6.1.4.2

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*ATS1-6	2	11/28/00	Mini - Contact Arrangements
*ATS1-7	2	11/28/00	Budget - Contact Arrangements
*ATS1-8	2	11/28/00	Jumbo - Contact Arrangements
ATS053	2	5/12/00	Group I Marking
ATS051	1	05/09/00	Electrostatic Guard

\*These drawings are common to, and held with, Certificate No BAS00ATEX1228X

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**BASEEFA List Keywords**  
1CONTRUN