bearing bore. Make sure that no small ferrous objects have been attracted to the magnet. A small amount of loctite 222 adhesive or equivalent thread locking adhesive should be applied to the generator housing Before reassembly ensure the bearing outer race and generator housing bearing bore are clean. Do not use abrasive cleaners. retaining ring screws(A-873), which allow the rotor shaft with sealed bearing to be removed from the housing cover.

a plastic or hide mallet on the rim of the housing cover will be required to release the cover. housing has an adhesive on the outer ring (see fig 1b), also the attraction of the magnet will resist removal. Light tapping with cover. Do not prise the housing cover off this would damage the casting and 'O' ring seal. The bearing in the generator

Disassemble the components from the rotor shaft to get access to the bearing retaining ring (A-868) and the 3 x bearing

To remove the generator housing cover (A-216/212), remove the screws (A-18), the assembled rotor is fitted to the housing Housing Cover Removal from Manufacturing date code 0409 (2004, September)

Enclosure NEMA 4 (When running)

Class I, Division 1, Groups A, B, C, D, T4 (Tamb=55°C).



Alex Jackson - Managing Director, for The Wolf Safety Lamp Company



IP40 (when not running, keep protected from ingress of water/dust). 1P66 (when running) to EN60529:1992.

Ingress protection level: Caution - Polycarbonate lens, check atmosphere in Ex area.

Standard applied: EN1127-1:2011 EU Type examination certificate: CML18ATEX3021X

Motified Body number: 0598

Notified Body: SGS FIMKO OY., P.O. Box 30 (Särkiniementie 3) 00211 HELSINKI, Finland. These lamps are not solidly earthed, precautions against the hazards associated with static electricity should be taken.

area, preventing dust deposits from being disturbed. Performance of the lamp may be reduced dependant on hose length.

- in dust atmospheres the silencer must be replaced by an anti static hose, ensuring exhaust air is piped to a safe/non hazardous
 - anti-static air hose must be used (>10 4 Ω , <10 8 Ω , to BS 2050)
 - clean, dry compressed air must be used, that is free from contamination with hazardous gas, dust or fibres.

Conditions of Certification (X)

A-TL44B and A-TL45B are approved for Group I mining applications, as Category M2 equipment.

Approval code: $\langle E_{\rm X} \rangle$ II 2 GD II T4 T135°C Ta=-20°C to +55°C

1 & 2 potentially explosive gases, vapours, mists and dusts, where T4 temperature class permits. A-TL44A, A-TL45A, A-TL44B and A-TL45B are all approved for Group II surface applications, as Category 2 equipment, for zone

suffix denoting A - Aluminium construction or B - Brass construction. The A-TL44A/B Baylight provides all round illumination; the A-TL45A/B Floodlight gives directional illumination, with the The magnet, also fitted to the shaft, rotates within windings, generating electricity and powering a 24v 250watt tungsten halogen bulb. The Wolf ATEX Turbolite is powered with compressed air that, once regulated, drives the turbine wheel fitted to the shaft.

Type Examination Certificate, and subsequent review, confirms compliance with the essential health and safety requirements. The Wolf ATEX Turbolite meets all relevant provisions of the 2014/34/EU (ATEX Equipment) Directive by virtue of the issued EU EU Declaration of Conformity

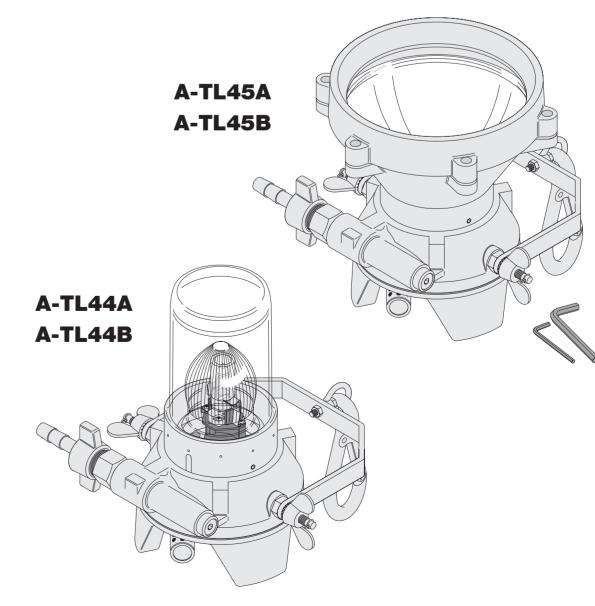
Approvals

Operation and Maintenance Instructions Wolf ATEX Turbolite Range



WOLF ATEX Turbolite RANGE

OPERATION AND MAINTENANCE INSTRUCTIONS















See head removal. Inspect ball glass (A-19), do not use if Removal and replacement of the ball glass, A-TL44A/B (fig. 1) enclosure, and then lock the enclosure with the lock screw (A-74). rubber washer (A-158) on the generator to seal the pressurised

The fastening screws are of a special high tensile stainless steel replacement. Inspect the glass disc, do not use if damaged. to gain access to the glass disc (A-140) for cleaning or

Remove 6 x fastening screws (A-18) retaining the lens ring

Removal and replacement of the glass disc, A-TL45A/B

screwed down far enough over the 'O' ring (A-77) or grooved When re-assembling the ATEX Turbolite, ensure the head is

pressure seal on the insulating bush (A-52). these nuts are secure to ensure a reliable electrical contact and holding the bulbholder terminals (fig. 1a). On inspection check bulbholder can be removed by unscrewing the lock nuts (A-872) remove, lift one spring clip and rotate the tube clockwise. The over the bulb to improve bulb life and reduce contamination. To bulb replacement. A glass tube (A-908) with bayonet clip is fitted should be switched off immediately and removed from service for pins and pinch are fragile. When the bulb blows the airlamp (A-129/A-159, type GY6.35) should be handled with care, the

The 24v 250watt tungsten halogen bi pin capsule bulb unscrew the reflector head/locking dome from the generator

To gain access to the bulb, release the lock screw (A-74), and

Head Removal and Bulb/Bulb Holder Replacement

contact the Company. responsibility and may cause an unsafe condition. If in doubt product certification and the manufacturer's guarantee and

- The use and/or improper fitting of spare parts will invalidate inspection and maintenance. hours of use. Refer to IEC 60079-17 for guidance on
- three months for regular use, otherwise after every 1000 • Airlamps should be inspected, cleaned and tested every
- accordance with these instructions, by trained/qualified
- A damaged airlamp should be withdrawn and repaired in Brass - B construction. Do not mix cast components.
- ATEX Turbolites are available with Aluminium A, or
 - Inspection and Maintenance
 - Do not cover or obscure light transmitting parts.
- Before dismantling the lamp shut off air supply and $\,$ All maintenance to be carried out in the safe area,
- inside of the glass, reducing light output.
- Dirt or moisture from unfiltered air will deposit on the

with these instructions before operation. Stand clear Pressurised enclosure, inspect lamp in accordance

standard, a polished reflector can be fitted on request. clearance). The A-TL45A/B is supplied with a matt reflector as male thread, or a 3/4" BSP female thread (with limited internal supplied, can be connected to a 1/2" bore hose, a 3/4" BSP fluctuations in airline pressures. Every Turbolite Airlamp, as The pressure regulator on the lamp compensates for Ideal running and setting pressure, 5.5 bar (80 psi)

(isq 0St ot 07) Wolf ATEX Turbolite operating pressure is 5 - 8 bar Operating Instructions

product improvement. Changes in design may be made without

The Wolf Safety Lamp Co. Ltd has a policy of continuous exhaust does not cause a hazard. hose will result in minimal loss of performance. Ensure piped

Exhaust hose must be anti-static to BS2050. 3/4" (18mm) bore

safe area. For dust atmospheres follow fig 4c. Hose must exhaust in a

.db. .giì wolloì To operate with reduced noise levels in gas atmospheres For standard use in gas atmospheres follow fig. 4a.

Use of the Silencer and Remote Exhaust (fig. 4)

ensure regulator setting is stable. 23.5 volts is reached turn the air supply on/off three times to adjust the regulating screw (A-29). When required voltage of pressure regulator key set (A-68), release the lock nut (A-28), ball glass and locking dome, including 'O' ring (A-77). Using the the wires are not touching the glass tube. Fit the reflector head/ wires to the connecting studs for bulbholder (A-871), ensure the generator voltage. Fit to the generator, connect the two A setting and testing device is required (A-880) to set or check

Setting Generator Voltage (fig. 3) ready for resetting the pressure regulator. then be loosely fitted just inside the end of the piston chamber, chamber. The regulating screw (A-29) and lock nut (A-28) should must be removed from the opposite end of the regulator piston with collar (A-98), lock nut (A-28) and regulating screw (A-29)

Before re-assembly of the regulator, the lockscrew (A-116) (A-115) for deterioration. necessary, check the fabric and beaded rim of the diaphragm function correctly. If replacement or cleaning of any parts is ring (A-870). Do not disturb the regulator unless it ceases to regulator parts are correctly aligned and secured by the locking

The regulator adjusts the output voltage of the generator. All the Regulator Assembly (fig. 1) (A-875) is secure, retain with thread lock inspection and assembly always check the nut for rotor shaft x A-862 and 2 x A-867). Never re use the circlip (A-861). On and waved spring washers must be replaced as a set (i.e. 2

applied to the bearing retaining ring screws. Sealed bearings of all components. Thread lock (e.g. Loctite 270) should be Assembly is the reverse of the above; check correct orientation housing; avoid finger traps between the generator housing and

Ensure the sealed bearing locates correctly into the generator assembly the magnet will be strongly attracted to the stator. been attracted to the magnet. When replacing the rotor shaft Before reassembly make sure that no small ferrous objects have shaft with sealed bearing to be removed from the housing cover.

3 x bearing retaining ring screws (A-873), which allow the rotor rotor shaft to get access to the bearing retaining ring (A-868) and magnet will resist removal. Disassemble the components from the housing cover. Do not prise the housing cover off, attraction of the 3 x fastening screws (A-18), the assembled rotor is fitted to the To remove the generator housing cover (A-216/A-212), remove

Inspection and replacement of generator sealed bearings

- Stripping of the threads in the reflector head
- Weakening of the fastening screws. The grooved rubber seal to become damaged
 - The toughened glass disc to shatter screws can cause:

only use specified spare parts. Incorrect fastening of these IMPORTANT, the strength of these screws is safety critical,

Wolf ATEX Turbolite Range Parts List

Order Code	Description	Order Code	Description	Order Code	Description
A-TL45A A-6	ATEX Turbolite Floodlight Screw, Air Inlet Plate A-105	A-134 A-139	Overthrow Nut Grooved Rubber Washer	A-908	Glass Tube with Bayonet Clip
A-7 A-8 A-11 A-13S A-18 A-28 Screw A-29 A-33 A-34 A-38 A-52 A-54 A-57M A-57P A-68 A-72 A-74 Head	(2 per plate) Screw for Stator (3) Wing Nut for A-11 (2) Bridle Bolt (2) Bridle With Safety Hook Stainless Steel Fastening Screw (9) Lock Nut for Regulating Regulating Screw Air Filter Sieve Connecting Piece Turbine Wheel Insulating Bush (2) Stator Winding Reflector Matt Reflector Polished Pair of Pressure Regulating Keys Lock Washer for Bridle (2) Lockscrew for Reflector	A-624A A-861 A-862 A-863 A-865	Glass Disc 15mm (toughened) Long Spring Bulbholder Short Spring Bulbholder Bulb 24V 250W Tungsten Halogen High Output Key for Fastening Screws Key for Lockscrew Aluminium Housing Cover Aluminium Generator Housing Aluminium Reflector Head 6 lug Aluminium Reflector Head 6 Lug Assembly Aluminium Lens Ring 6 Lug Circlip for Rotor Shaft Sealed Bearing (2) Spacer for Turbine Spacer for Magnet	A-16 A-19 A-158 A-163A A-TL45B A-212 A-223 A-623B A-623BC A-624B	ATEX Turbolite Baylight Metal Washer Ball Glass (A-TL44) Grooved Rubber Washer Lockscrew Ring/Guard (A-TL44A-Aluminium) ATEX Turbolite Floodlight Brass Housing Cover Brass Generator Housing Brass Reflector Head 6 Lug Brass Reflector Head 6 Lug Brass Lens Ring 6 Lug ATEX Turbolite Baylight Metal Washer Ball Glass (A-TL44) Grooved Rubber Washer Brass Lockscrew Ring/ Guard (A-TL44B-Brass)
A-77 Head	O' Ring Seal for Reflector	A-866 A-867	Rotor Shaft Lock Collar Waved Spring Washer for		,
A-80 A-87 A-98 A-105 A-106 Plate (3) A-109 A-110 A-113 A-114	Magnet Washer for Bulb Holder Studs (2) Collar for Lockscrew- Piston Chamber Air Inlet Plate (3) O' Ring Seal for Air Inlet Air Regulating Plate Piston complete Piston Spacer Spring for Piston	A-867 A-868 A-869 A-870 A-871 A-872 A-873 A-874 A-875 A-876	Waved Spring Washer for Bearing (2) Bearing Retaining Ring Silencer Retainer, Air Filter Sieve Connecting Stud for Bulbholder Bulbholder Nut (8) Bearing Retaining Ring Screws (3) Rotor Shaft Nut for Rotor Shaft Tab Washer (2)	A-179 A-180 A-146 A-181 A-184 A-186 Drain Unit	Anti-static Hose 1/2" Bore 18.3 m (60 ft) approx Anti-static Hose 1/2" Bore 36.6 m (120 ft) approx Key for nut on Rotor Shaft and Retainer, Air Filter Sieve Stainless Steel Hose Clips Filter/Automatic Drain Valve High efficiency Filter/Auto

Note-FM Approval Changes in this instruction manual A-93, issue 3, 4, 5, 6, 7 and 8 have no impact on the FM approval.

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MMD/5.19 DF528 Part No. A-93 issue 8



BUREAU VERITAS

