



## Wolf ATEX Turbolite Features

- Ideal for task lighting in hazardous marine and tank cleaning applications.
- ATEX, UKEX and IECEx approved for Zone 1, 2, 21 and 22 potentially explosive gas and dust atmospheres.
- Uniquely powered by a supply of compressed air.
- Compact and lightweight design.
- Up to 9,000 lumens light output at source.
- Robust and durable nickel plated aluminium construction.
- IP66 ingress protection rating when running.
- Toughened glass lens/ball glass.



## ATEX TURBOLITE

A-TL44C  
A-TL45C



### WOLF SAFETY LAMP COMPANY

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## Wolf ATEX Turbolite – A-TL44C and A-TL45C

Operation and Maintenance Instructions  
Please Retain – Read Before Use

### EU Declaration of Conformity

The Wolf ATEX Turbolites A-TL44C and A-TL45C meet all relevant provisions of the 2014/34/EU Explosive Atmospheres (ATEX Equipment) Directive by virtue of the issued EU type examination certificate, demonstrating compliance with all relevant harmonised standards and essential health and safety requirements.

The Wolf ATEX Turbolite is powered with compressed air that, once regulated, drives the turbine wheel fitted to the shaft. The magnet, also fitted to the shaft, rotates within windings, generating electricity and powering a 24v 250watt tungsten halogen bulb. The A-TL44C Baylight provides all round illumination; the A-TL45C Floodlight gives directional illumination. Both A-TL44C and A-TL45C models are constructed from nickel plated aluminium.

The Wolf ATEX Turbolite is approved as Group II, Category 2 equipment for use in zone 1, 2, 21 & 22 potentially explosive gases, vapours, mists and dusts where the T4 temperature class/135°C maximum surface temperature permits. Note, additional accessories are required for use in zone 21 & 22.

Certification/Approval Codes:



Ex sb IIC T4 Gb  
Ex sb IIIC T135°C Db [refer to special conditions for safe use]  
A-TL44C Ta = -15°C to +55°C  
A-TL45C Ta = -20°C to +55°C

EU Type examination certificate: **CML 22ATEX9542X**  
Notified Body: SGS FIMKO OY, PO Box 30 (Särkiniementie 3),  
00211, Helsinki, Finland.  
Notified Body Number: **0598**

Harmonised standard: EN IEC 60079-0:2018 and  
applied standard IEC 60079-33:2012

Ingress protection level:

**IP66** (when running) to EN60529:1992.

**IP40** (when not running, keep protected from ingress of water/dust).

The Wolf ATEX Turbolite is compliant with the  
2011/65/EU RoHS Directive to the harmonised standard  
EN IEC 63000:2018.

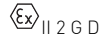
This declaration is issued under the sole responsibility  
of Wolf Safety Lamp Company.

Alex Jackson – Managing Director,  
Wolf Safety Lamp Company Ltd.,  
Sheffield, S8 0YA.  
Dated: 01 December 2023

### UK Declaration of Conformity

The Wolf ATEX Turbolites A-TL44C and A-TL45C meet all the statutory requirements of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016/1107 as amended by UKSI 2019/696 by virtue of the issued UKEX type examination certificate, demonstrating compliance with all relevant designated standards and essential health and safety requirements.

Certification/Approval Code:



Ex sb IIC T4 Gb  
Ex sb IIIC T135°C Db [refer to special conditions for safe use]  
A-TL44C Ta = -15°C to +55°C  
A-TL45C Ta = -20°C to +55°C

UK Type examination certificate: **CML 22UKEX9543X**  
Approved Body: SGS Baseefa Ltd, Rockhead Business Park,  
Staden Lane, Buxton, SK17 9RZ, UK.

Approval body number: **1180**

Designated standard: EN IEC 60079-0:2018 and applied  
standard IEC 60079-33:2012.

The Wolf ATEX Turbolite is compliant with the Restriction  
of the Use of Certain Hazardous Substances in Electrical  
and Electronic Equipment Regulations 2012, UKSI  
2012/3032 to the harmonised standard EN IEC 63000:2018.

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Alex Jackson – Managing Director,  
Wolf Safety Lamp Company Ltd.,  
Sheffield, S8 0YA.  
Dated: 01 December 2023

### IECEX Scheme Certification

Certificate Number: **IECEX CML 22.0083X**

Ex sb IIC T4 Gb  
Ex sb IIIC T135°C Db [refer to special conditions for safe use]  
A-TL44C Ta = -15°C to +55°C  
A-TL45C Ta = -20°C to +55°C

Ingress protection level:

**IP66** (when running) to EN60529:1992

**IP40** (when not running, keep protected from ingress of water/dust)

IEC Standards applied: IEC60079-0:2017, IEC60079-33:2012

### IMPORTANT: SPECIAL CONDITIONS FOR SAFE USE (X)

1. This equipment shall only be supplied with air from a clean, dry source that is free from contamination with hazardous gas, dust or fibres.
2. When this equipment is used in the presence of combustible dust, the air outlet shall be fitted with additional hose so that it is piped to a safe area instead of venting into the hazardous area.
3. The hoses that are fitted to this equipment shall be anti-static with a resistance between  $10^4 \Omega$  and  $10^9 \Omega$ .

TECHNICAL DATA		A-TL44C	A-TL45C
Power Source	Type	Compressed Air Driven Turbo-Alternator Generator	
	Input Pressure Range	5-8 Bar	
	Consumption	0.75m³ / min.	
Light Source	Part Number	A-129 (6,000lm, supplied as standard) / A-159 (9,000lm, alternative)	
	Type	Halogen Filled Filament Bulb	
	Voltage	24V	
	Wattage	250W	
	Lumen Output	6,000lm / 9,000lm	
	Life	2,000hrs / 200hrs	
Beam Type		360° Illumination	25° Flood
Lens		Lens Ball Glass / Plastic Dome	Toughened Glass
Enclosure		Nickel Plated Aluminium	
Ingress Protection		IP66 when running* IP40 when not running	
Weight		4.4kg	5.3kg
Gas Temperature Class		T4	
Dust Surface Temperature		T135°C	
Lower Ambient Temp Limit		-15°C	-20°C
Upper Ambient Temp Limit		55°C	

Wolf Safety Lamp Co. reserves the right to change technical specifications without prior notice.

\*Once pressurised, lamp may be used underwater. When using under water always start lamp before submersing and ensure lamp is running until removed from water. Remote exhaust can be used above water surface to eliminate bubbles. Depth of use limitations to be considered regarding water pressure.

The Wolf Safety Lamp Co. Ltd has a policy of continuous product improvement. Changes in design details may be made without prior notice. Prices and design are subject to alteration without notice. All products sold are subject to our conditions of sale. A copy of these instructions with any relevant revisions can be found at [www.wolfsafety.com](http://www.wolfsafety.com).

### Disposal of Waste Material:

Disposal of packaging, parts and end of life products should be carried out in accordance with applicable regulations.

## Wolf ATEX Turbolite – A-TL44C and A-TL45C

### Setting Generator Voltage

A setting and testing device (A-1040) is required to set or check the generator voltage.

1. Fit to the generator, connect the two wires to the contact spade connectors. See fig. 9.

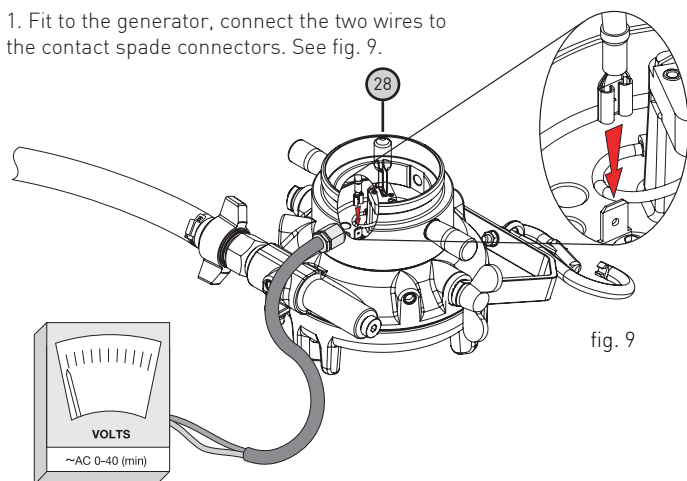


fig. 9

2. Fit the reflector head (A-TL45C models) or ball glass and locking dome (A-TL44C models) to the top of the setting and testing device and run the lamp at 5.5 bar (80 psi).

3. Remove the regulator lock screw then, using the pressure regulator key set (A-69), release the lock nut and adjust the regulating screw. See fig. 10.

When required voltage of 23.5 volts is reached turn the air supply on/off three times to ensure regulator setting is stable.

Once the voltage is set and stable, re-fit the regulator lock nut and lock screw.

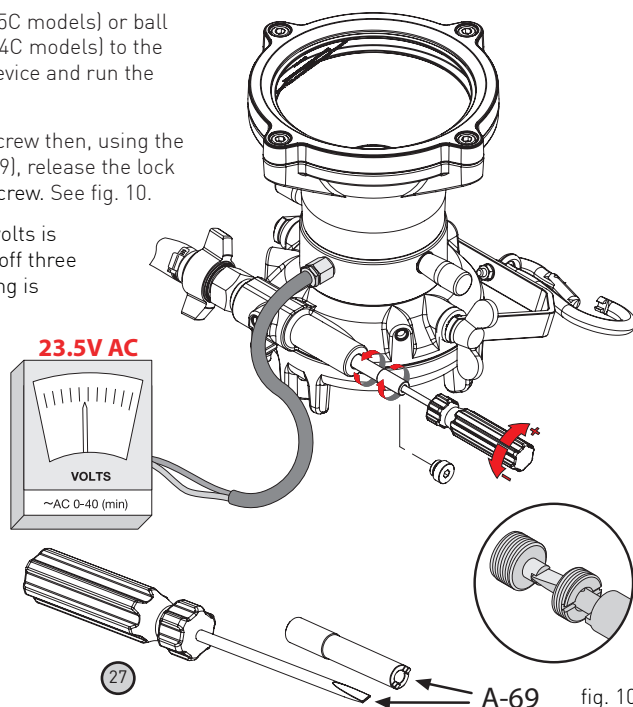


fig. 10

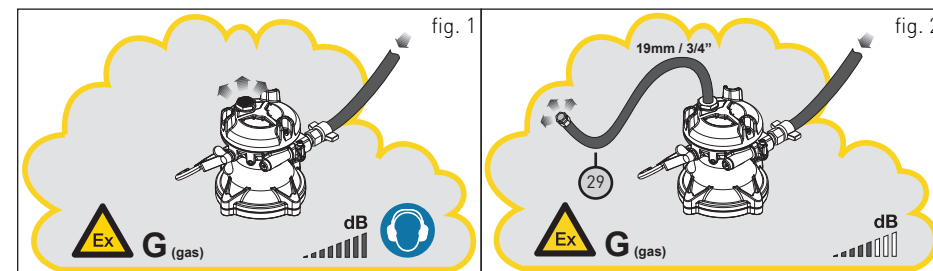
### Operating Instructions

The Wolf ATEX Turbolite is a compressed air driven lamp. The operating pressure must be between 5 and 8 bar (70 to 120 psi). The ideal running and setting pressure is 5.5 bar (80 psi).

The pressure regulator on the lamp compensates for fluctuations in airline pressures. Every Turbolite Airlamp, as supplied, can be connected to a 12.5mm (1/2") bore hose, a 3/4" BSP male thread, or a 3/4" BSP female thread.

The supply hose must be anti-static to BS2050 and should be connected to earth at the supply end. Continuity between lamp and hose should be checked to ensure there is no risk of static build up. Quick connect couplings can be insulative. If the coupling being used is insulative, the external earthing point on the lamp should be used to ground the lamp body to the hose.

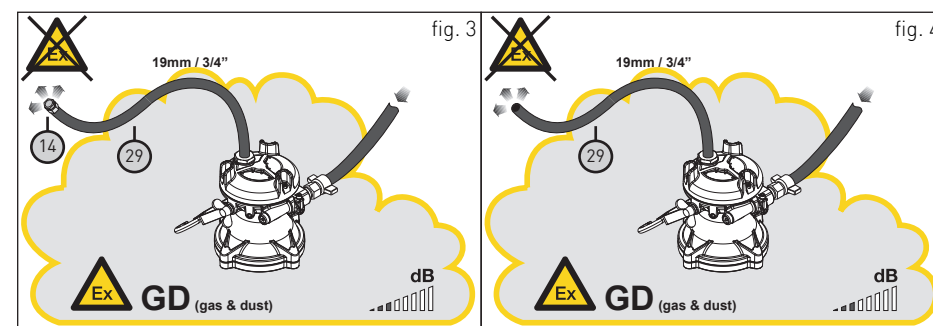
### Use of the Silencer and Remote Exhaust in a Hazardous Gas Atmosphere



For standard use in gas atmospheres an exhaust hose is not required. If working in close proximity to the lamp for long periods of time, hearing protection is recommended.


To operate with reduced noise levels in gas atmospheres, an exhaust hose may be used to vent within the explosive atmosphere. When venting within the explosive atmosphere the silencer must be fitted to the end of the exhaust hose as shown in fig. 2.

### Use of the Silencer and Remote Exhaust in a Hazardous Gas & Dust or Dust Atmosphere



To operate in dust atmospheres, an exhaust hose **must** be used to vent outside of the explosive atmosphere, so that the exhaust air doesn't agitate the dust. The exhaust hose silencer is optional in this arrangement. Fig. 3 shows safe area exhaust with silencer. Fig. 4 shows safe area exhaust without silencer.

Exhaust hose must be anti-static to BS2050. 19mm (3/4") bore hose will result in minimal loss of performance. Ensure exhaust hose does not cause a hazard.

**WARNING:**

- Pressurised enclosure, inspect lamp in accordance with these instructions before operation.
- All maintenance to be carried out in the safe area.
- Before dismantling the lamp shut off air supply and wait two minutes.
- Do not cover or obscure light transmitting parts.
- These lamps are not solidly earthed. Precautions against the hazards associated with static electricity should be taken.
- A-TL44C model has a polycarbonate lens, the end user must ensure suitability of the atmosphere the lamp will be used in.

Inspection and Maintenance



1. A damaged ATEX Turbolite should be withdrawn and repaired in accordance with these instructions, by trained/qualified personnel.
2. ATEX Turbolites must be inspected, cleaned and tested after every 1000 hours of use. Refer to IEC 60079-17 for guidance on inspection and maintenance.
3. The use of non-Wolf spare parts and/or improper fitting of spare parts will invalidate product certification and the manufacturer’s warranty and may cause an unsafe condition. If in doubt, contact the Wolf Safety Lamp Company.
4. Before use in a hazardous dust atmosphere, lamps must be checked to ensure there is no air leakage. If a lamp is leaking, check the condition of all seals and tightness of assembly screws and threads. Refer to torque settings in fig. 6 (page 5-6).

Head Removal and Bulb/Bulb Holder Replacement

To gain access to the bulb, release the lock screw using a 2.5mm Allen key and unscrew the floodlight head assembly/baylight head assembly from the generator.

The 24v 250 watt tungsten halogen bi pin capsule bulb A-129/A-159, should be handled with care, the pins are fragile. When the bulb blows the ATEX Turbolite should be switched off immediately and removed from service for bulb replacement.

The bulbholder can be removed by unscrewing the two securing screws and unscrewing the wiring contact screws and nuts. The nuts are accessed from the inside of the generator. On inspection, check these nuts are torqued to 1.5Nm to ensure a reliable electrical contact and pressure seal on the insulating bush.

When re-assembling the ATEX Turbolite, ensure the head is screwed down until it comes to a stop when the castings contact each other. This will ensure there is enough compression on the floodlight head seal or ball glass seal to seal the pressurised enclosure. Then lock the enclosure with the lock screw.

Removal/Replacement of the Glass Lens - Type A-TL45C

The lens ring retains the glass lens. To remove, unscrew the four fastening screws, using a 6mm Allen key. The glass lens is mounted inside the lens seal.

Inspect the lens seal before replacing the lens. If the seal is damaged it must be replaced.

The fastening screws are high tensile A4 stainless steel specification. **IMPORTANT**, the strength of these screws is safety critical, only use specified spare parts. Incorrect fastening of these screws can cause:

- The toughened glass lens to shatter
- The lens seal to become damaged
- Weakening of the fastening screws
- Stripping of the threads in the reflector head

Removal/Replacement of the Ball Glass - Type A-TL44C

Remove the locking screw and lock ring dome to access the ball glass. Remove the ball glass from the seal and fit new ball glass in the same orientation. Refer to fig. 7 on page 6.

Inspect the ball glass seal before replacing the lens. If the seal is damaged it must be replaced.

Accessories

Item No.	Part No.	Spare Part Description
27	A-69	Pair of Pressure Regulating Keys
28	A-1040	Setting and Testing Device
29	A-1045	Remote Exhaust Hose Kit - 36m Exhaust Hose, Hose Tails, Stainless Steel Exhaust Washer & Silicone Exhaust Washer
30	A-179	Anti-Static Hose 12.5mm Bore 18.3m
31	A-180	Anti-Static Hose 12.5mm Bore 36.6m
32	A-1082	Hose Fitting Kit - Hose Tail, Overthrow Nut & Connecting Piece
33	A-34	Connecting Piece
34	A-146	Key for Nut on Rotor Shaft and Regulator Retainer
35	A-204	Filter / Automatic Drain Valve
36	A-206	High Efficiency Filter / Automatic Drain Valve
37	A-191	Filter Stand
38	A-2041	Filter / Automatic Drain Valve with Stand
39	A-2061	High Efficiency Filter / Automatic Drain Valve with Stand
40	A-300	1m Folding Tripod Stand - Stainless Steel

Regulator Assembly

The regulator adjusts the output voltage of the generator. All the regulator parts are correctly aligned and secured by the retainer. Do not disturb the regulator unless it ceases to function correctly. If replacement or cleaning of any parts is necessary, remove the retainer using the forked end of the A-146 tool. Check the fabric and beaded rim of the diaphragm on the piston assembly [A-110] for deterioration.

Before re-assembly of the regulator, the lock screw, lock nut and regulating screw must be removed from the opposite end of the regulator piston chamber, to release pressure on the regulator spring.

The regulating screw and lock nut should then be loosely fitted just inside the end of the piston chamber, ready for setting the generator voltage.

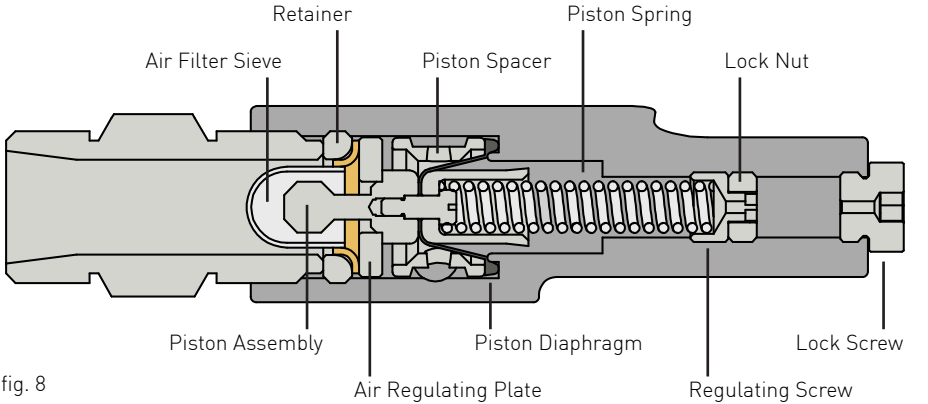


fig. 8

## Wolf ATEX Turbolite – A-TL44C and A-TL45C

### Spare Parts

Item No.	Part No.	Spare Part Description
Parts for A-TL44C & A-TL45C		
1	A-129	Bulb 24V 250W Tungsten Halogen (6000lm)
2	A-159	Bulb 24V 250W Tungsten Halogen, High Output (9000lm)
3	A-TLGEN	ATEX Turbolite Generator (for A-TL44C and A-TL45C models)
4	A-1053	Bulbholder
5	A-1056	Regulator Service Kit - Piston, Piston Spring, Piston Spacer, Air Regulating Plate, Air Filter Sieve, Retainer, Regulating Screw, Lock Screw, Locking Nut
6	A-33	Air Filter Sieve
7	A-110	Piston Assembly
8	A-1058	Air Inlet Kit - Air Inlet Plate (x1), Air Inlet Seal (x1) and Screws (x2)
9	A-1059	Rotor Kit - Includes All Rotor Parts Except Magnet Rotor and Turbine Wheel
10	A-80	Magnet Rotor
11	A-38	Turbine Wheel
12	A-1062	Sealed Bearing (x2), Waved Washer (x2) and Circlip Washer for Rotor Shaft
13	A-1063	Stator Winding and Fixing Screws (x3)
14	A-1064	Exhaust Silencer with Stainless Steel Washer and Silicone Washer
15	A-1065	Contact Assembly - Screw, Nut, Washers, Insulating Bush and Fast On Tab
16	A-1066	Bridle Kit - Bridle, Eyebolt, Carabiner and Fixings
17	LL-1117	Generator Fastening Screw (x1)
18	A-74	Locking Screw
Parts for A-TL44C only		
19	A-44H	Baylight Head Assembly
20	A-1054	Baylight Seal Kit - Generator Seal, Air Inlet Seals, Stainless Steel Exhaust Washer, Silicone Exhaust Washer, Ball Glass Seal & Ball Glass Washer
21	A-19	Baylight Ball Glass
Parts for A-TL45C only		
22	A-45H	Floodlight Head Assembly
23	A-1055	Floodlight Seal Kit - Generator Seal, Air Inlet Seals, Stainless Steel Exhaust Washer, Silicone Exhaust Washer, Reflector Housing Seal and Lens Seal
24	A-1004	Floodlight Glass Lens
25	A-1006	Floodlight Reflector
26	A-1010	Reflector Housing Fastening Screws

### Inspection and replacement of generator sealed bearings

To remove the rear cover, remove the 3x fastening screws, using a 5mm Allen key. The assembled rotor is fitted to the rear cover. Do not prise the rear cover off, attraction of the magnet will resist removal. Tap the generator housing with a plastic mallet to aid removal of the rear cover.

Use tool A-146 (item 34) to hold the rotor shaft lock collar, while you remove the rotor shaft nut with a 10mm spanner.

Disassemble the components from the rotor shaft to get access to the bearing retaining ring and 3 x pozi-drive bearing retaining ring screws, which allow the rotor shaft with sealed bearing to be removed from the rear cover.

Assembly is the reverse of the above; check correct orientation of all components. Medium strength thread lock (e.g. Loctite 222) should be applied to the bearing retaining ring screws and the outer race of the bottom bearing. Take care not to contaminate the bearing face with thread lock.



Medium strength thread lock

Sealed bearings must be replaced as a set. Never re-use the circlip washer and ensure waved spring washers are fitted, as shown in fig. 5.

On inspection and assembly always check the rotor shaft nut is secure. High strength thread lock (e.g. Loctite 270) should be used on the rotor shaft nut.



High strength thread lock

Before re-fitting the rotor assembly to the generator housing, make sure that no small ferrous objects have been attracted to the magnet. When replacing the rotor assembly, the magnet will be strongly attracted to the stator. Ensure the sealed bearing locates correctly into the generator housing; avoid finger traps between the generator housing and the rear cover.

For replacement part numbers, refer to spare parts list on page 7.

### Rotor Assembly

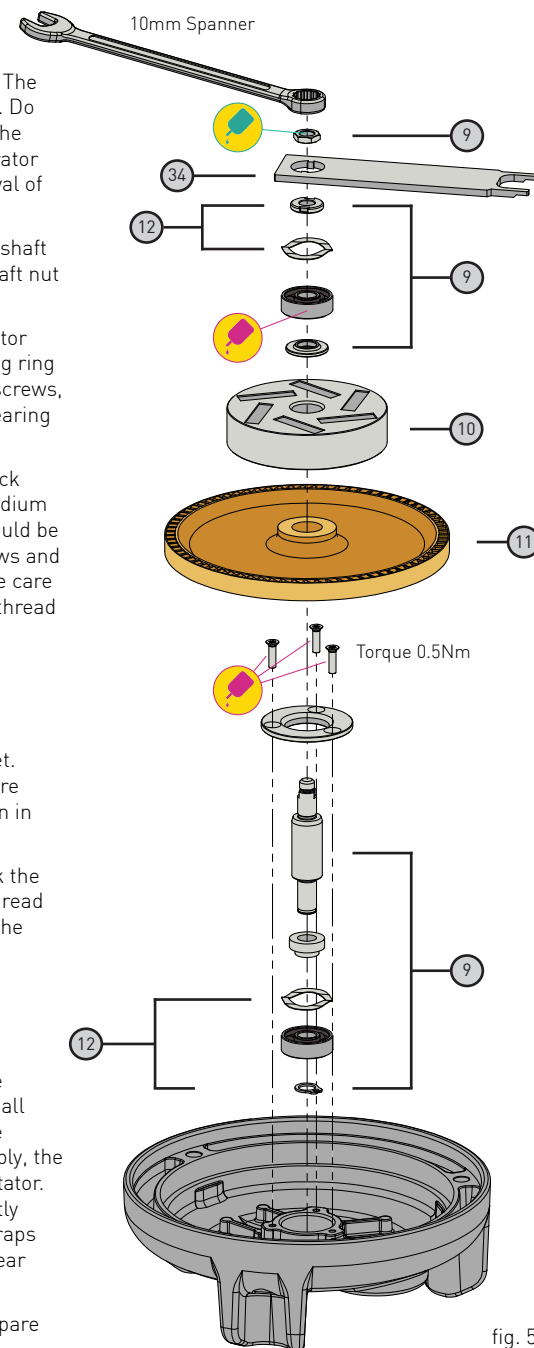
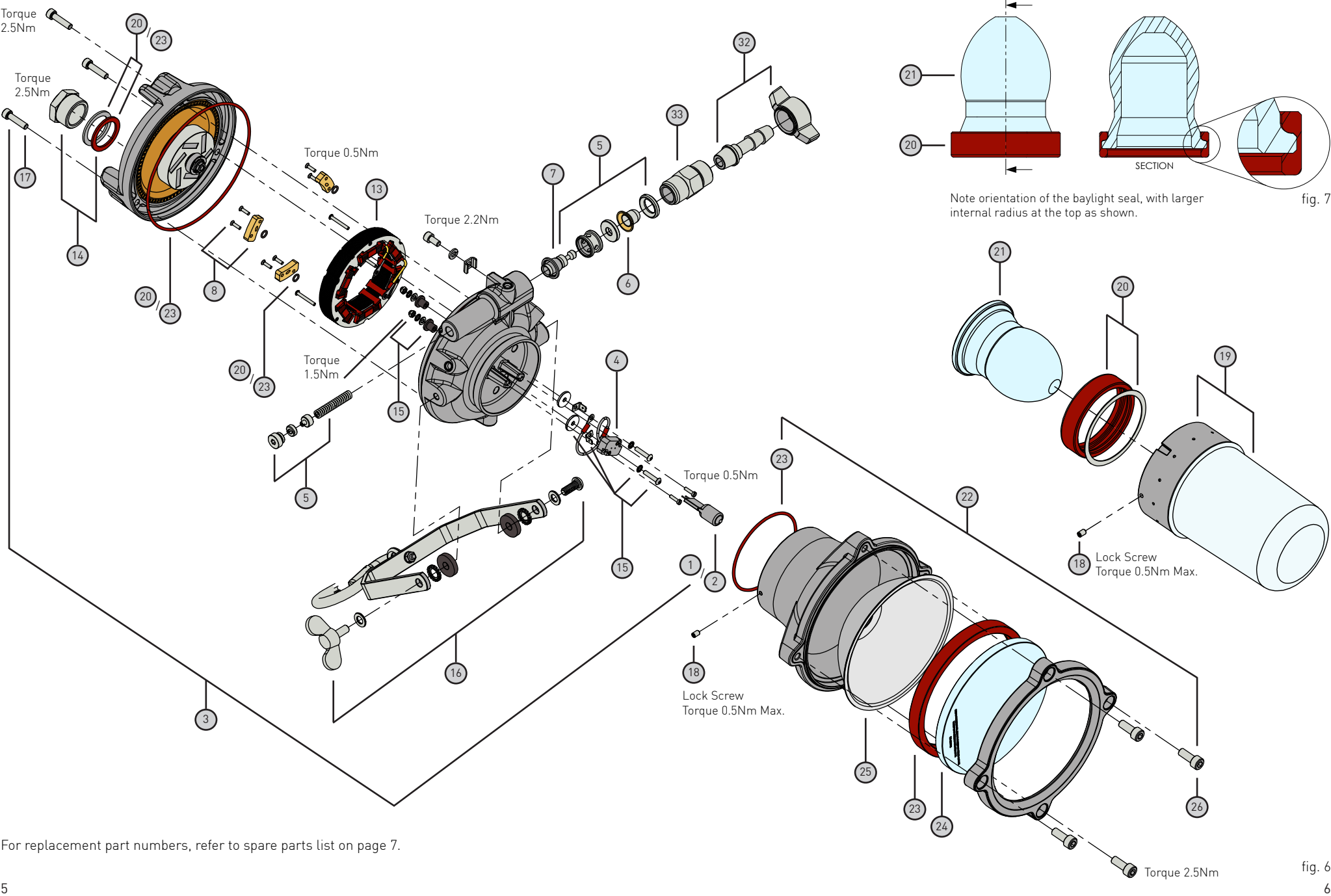


fig. 5





For replacement part numbers, refer to spare parts list on page 7.