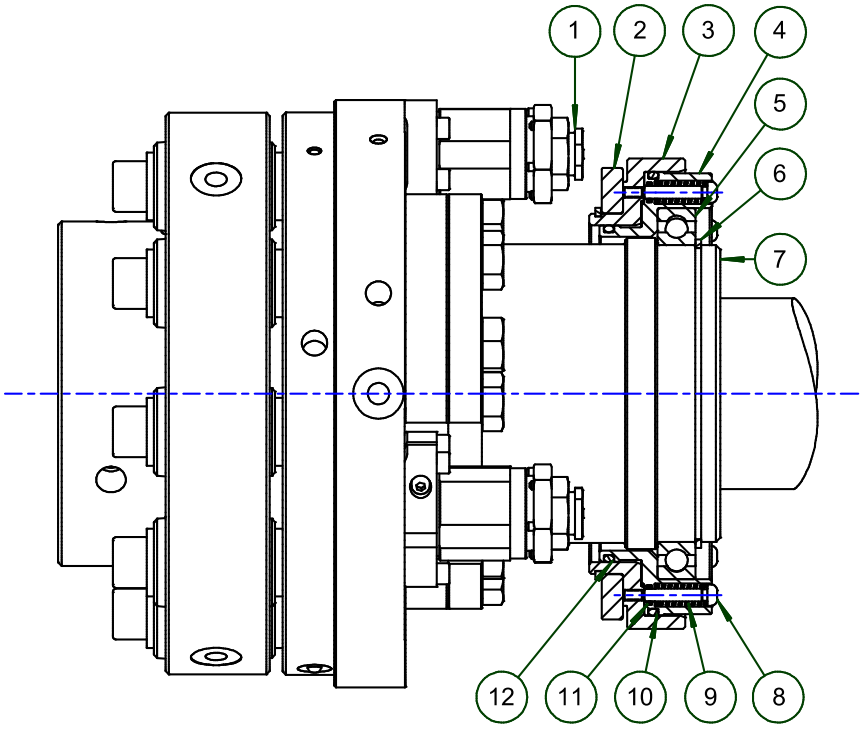
AUTOGARD 820 REMOTE RESET INSTALLATION AND MAINTENANCE

Item #	Description
1	Module Reset Pin
2	Pressure Plate
3	Piston
4	Cylinder
5	Bearing
6	Circlip
7	S1 Hub
8	Guide Screw
9	Return Spring
10	Guide Screw O-Ring
11	Cylinder Outer O-Ring
12	Cylinder Inner O-Ring



CONTENTS

PRODUCT DESCRIPTION

The 820 Remote Reset Modular Torque limiter is an 820 Modular Torque Limiter fitted with an airpack to enable the torque limiter to be reset. This Instruction and Maintenance manual should be read in conjunction with the PT3-006 AUTOGARD SERIES 820 TORQUE LIMITER Installation and Maintenance manual.

To ensure sustained trouble-free operation, the product must be used as originally specified and selected. In the event of any change in the operating conditions (power, speed, modifications to prime mover and driven machine), it is essential to confirm the overall design and suitability. If in doubt, consult Autogard.

GENERAL INFORMATION

These Operating Instructions constitute part of the supply. They should be accessible to the user at all times together. We accept no liability for damage resulting from non-observance of the Operating Instructions.

When the product is installed in equipment or systems, the supplier of the equipment or system is obliged to include the instructions, notes and description contained in these Operating Instructions in their own Operating Instructions and to ensure that essential health and safety requirements are met.

The product described here is in accordance with the state of the art at the time of printing these Operating Instructions. In the interest of further development, we reserve the right to introduce modifications which we consider appropriate, while retaining the essential features, to increase efficiency and reliability.

Unauthorised modifications are not permitted, invalidate any warranties and will impair reliability.

The product should only be used and operated under the conditions specified in the performance and supply contract.

The user has to ensure that the persons entrusted with installation, operation care and maintenance, as well as repair, have read and understood these Operating Instructions and observe them in all respects.

During the course of handling, assembly, disassembly, operation, as well as care and maintenance, all local regulations regarding industrial safety and pollution control are to be observed.

The product may only be operated, maintained and repaired by authorised, trained and suitably supervised personnel.

SAFETY WARNINGS

Work on the product may only be carried when it is stationary. The drive unit must be isolated to prevent accidental start-up (for example by locking the key switch or removing the fuses from the power supply). A notice should be affixed to the start-up point stating that work on the product is in progress.

During operation, the drive should be shut down immediately if changes are detected, for example increased vibration or noises.

It is the responsibility of the supplier of the equipment or system in which the product is used, to ensure that local codes of safety are complied with (e.g. EC Safety of Machinery Regulations in Europe) and that suitable guarding is fitted.

There may be residual risks of accidental contact with rotating equipment, take normal precautions according to local codes.

SYMBOLS USED IN THIS MANUAL

Important instructions contained in these Operating Instructions which concern operating safety are emphasised as follows:

This symbol draws attention to measures which MUST be observed to prevent personal injury.

CAUTION This symbol draws attention to measures which MUST be observed to prevent malfunction or damage to the product.

HANDLING AND STORAGE

Handling

All parts are listed in the despatch documents. Check for completeness on receipt. Any shipping damage and/or missing parts should be reported immediately in writing.

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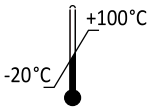
Any symbols or instructions applied to the packing should be noted.

Do not apply heat to the product or adjacent parts.

Do not strike with heavy hammer blows.

Storage



The product should be stored in a clean, dry environment. Extreme temperatures should be avoided. (Storage limits -20°C to +100°C)

Surface Protection

Metallic surfaces are either nickel plated or treated with manganese-phosphate and oil and are resistant to corrosion for long periods of time. Do not paint.

Cleaning

Keep the product clean. Wipe down periodically with an oiled cloth. Do not use solvents and avoid complete wash down or direct high pressure spray.

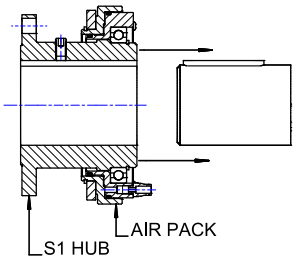
Disposal

National and local regulations govern the disposal of waste electronic equipment. (e.g. WEEE Regulations in Europe) At end of life, dispose of this product in accordance with local codes. Consult your local authority or refer to Autogard for further information.

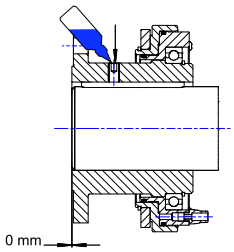
INSTALLATION

Unpack the torque limiter and examine for any signs of transit damage. Ensure that the bores are free from burrs. Verify that all parts have been properly supplied as per the order.

Before installation, ensure that the rotating equipment is isolated so that the installation can be carried out in a safe manner.



The airpack is supplied fitted to the S1 Hub, this assembly should be installed onto the shaft in one piece

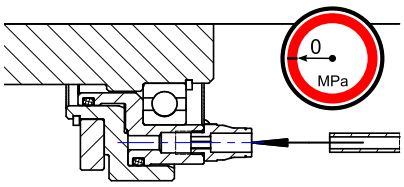


The S1 hub should be positioned such that the end of the shaft is flush with the end face of the hub.

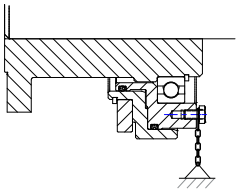
Most hubs have two cup point set screws to lock the hub in position on the shaft.

When the hub is correctly positioned on the shaft and the key is fitted, apply Loctite 243 or equivalent to the set screws and tighten.

Assemble the rest of the torque limiter following the specific instructions on the General Arrangement drawing and the "Autogard Series 820 Torque Limiter Installation and Maintenance Instructions".



Connect a regulated, dry air supply to the unit with 8mm diameter nylon tubing. Do NOT apply pressure. Air fitting may be radial or axial (as shown).



Fix a flexible chain or strap to the tapped hole in the end face of the air pack and secure the other end to a stationary reaction point. This prevents damage to the air line due to rotation of the air pack.

OPERATION

Normal Operation

During normal operation there should be no air applied to the Remote Reset Air Pack. If air is applied to the air pack during normal operation damage to the Torque Limiter, Driving and Driven equipment is possible. When no air pressure applied to the Remote Reset Air Pack the air pack is held in the closed position by the return springs in the assembly.

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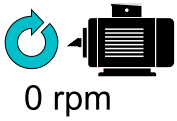
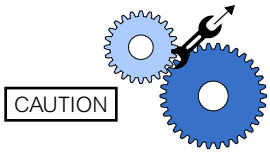
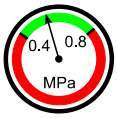
Reset Procedure



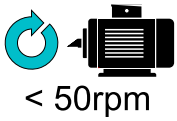
The drive must be stopped before attempting to reset the Torque Limiter



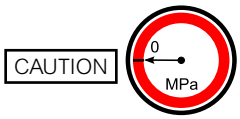
In the event that the Torque Limiter trips the user must ensure that the cause of the trip has been corrected before resetting the Torque Limiter and restarting the drive.



Apply regulated dry air pressure (0.40.8 MPa , 60120 psi) to the air pack.



Then rotate either driven or driving shaft at up to 50rpm, the torque limiter will reset within 120deg of relative rotation between the driving and driven shafts.



After the Torque limiter has reset remove the air pressure from the Remote Reset Air Pack.

Resume normal operation.

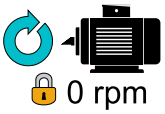
Module Adjustment

When an 820 Torque Limiter is fitted with a Remote Reset Air Pack it is not possible to remove the modules from the Torque Limiter without removing the Air Pack assembly from the S1 Hub. In most installations this will mean that removal of the S1 hub from the shaft is necessary in order to remove the modules.

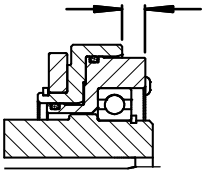
MAINTENANCE

Under normal operating conditions, an annual inspection and operational check should be adequate.

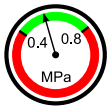
Air Pack Operation Test.



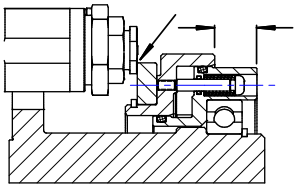
Stop and lock the Drive.



Note the position of the Piston relative to the Cylinder.

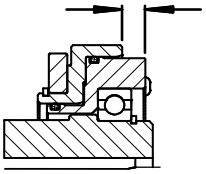


Apply Air Pressure to the Air Pack.

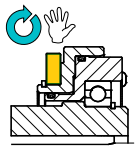


Check that the Air Pack piston moves towards the modules and pushes the pressure plate on to the Module Reset Pins.

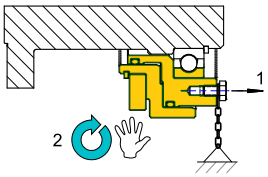
Remove Air pressure from the Air Pack.



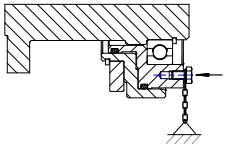
Check that the piston withdraws to its starting position noted above.



Check that the pressure plate is free to rotate on the piston.



Remove anti-rotation chain or strap (and air supply if required) and check that the airpack assembly rotates freely on the hub.



Refit the anti-rotation chain or strap.

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