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Manual Override

INSTRUCTION MANUAL 2006



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04	29/10/25	Added stainless steel cast design. Changed template. Added "ADDENDUM 1: Additional safety precautions" – Rev.00.	D.Pasini	R.Valoti
Revision	Date	Description	Issued by	Checked by

IMI STI S.r.l has taken every care in collecting and verifying the documentation contained in this Instruction Manual. The information herein contained are reserved property of IMI STI S.r.l



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1. GENERAL INFORMATION

1.1 GENERAL WARNING



This Instruction Manual is an integral part of the machine, it should be carefully read before carrying out any operation and it should be kept for future references.
The operators shall adopt the safety precautions required by the country where the product is installed.

1.2 GENERALITIES

IMI STI products are conceived, manufactured and controlled according to the Quality Control System in compliance with EN ISO 9001 International Standard.

1.3 MANUFACTURER

According to Machinery Directive 2006/42/EC, the Manufacturer of the described product is:

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1.4 TERMS AND CONDITIONS

IMI STI guarantees each single product to be without defects and to conform to current goods specifications. Unless otherwise stated on the purchased order, the warranty period is one year from the date of installation by the user, or eighteen months from the date of shipment to the first user, whichever occurs first. Additionally:

- The warranty does not cover products which have been subject to improper storage, improper installation, misuse, corrosion, or which have been modified or repaired by unauthorized personnel (it is not advisable that customer or end users modify the device characteristics).
- The warranty does not cover special products or components not covered by warranty in their turn by subcontractors.

1.5 MANUFACTURER'S LIABILITY

IMI STI declines all liability in the event of:

- The use of the product does not comply with local legislation on safety at work.
- Disregard or incorrect application of the instructions provided on the product label and/or in the instruction manual.
- Incorrect installation and/or use of the product.
- Modifications without STI's authorization and/or work done on the unit by unqualified or unsuitable personnel.

1.6 ABOUT THIS MANUAL

This manual is designed to thoroughly explain the functioning of the manual override in all of its versions. The manual will provide a description of the product, as well as mounting and safety instructions.

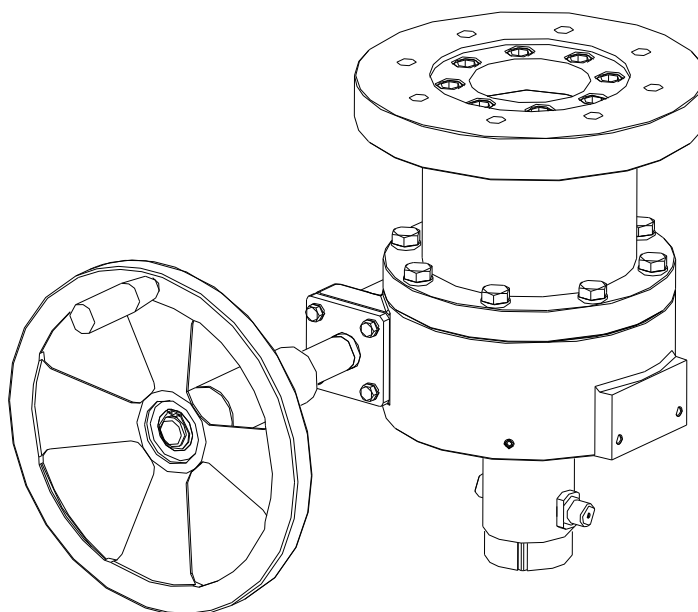
2. DEVICE DESCRIPTION

All STI actuators may be equipped with a manual override to allow operation of the control element when control air is not available or when it's desirable to bypass the controller to manually operate the actuator. Several sizes are available according to the type of actuator required. For actuator series SC/V the gear box is mounted between the actuator and the yoke, for SC series it is mounted in front of the actuator.

The internal worm gear is mounted on ball bearings for long operating life.

The manual override can be used as an adjustable stroke limiter.

The manual override must be installed and used according the design limitations and mounted on STI actuators.



2.1 GENERAL SAFETY INSTRUCTIONS

Before any operations is made, operators shall follow the safety instructions of this manual and adopt the safety precautions required by the country where the product is installed.

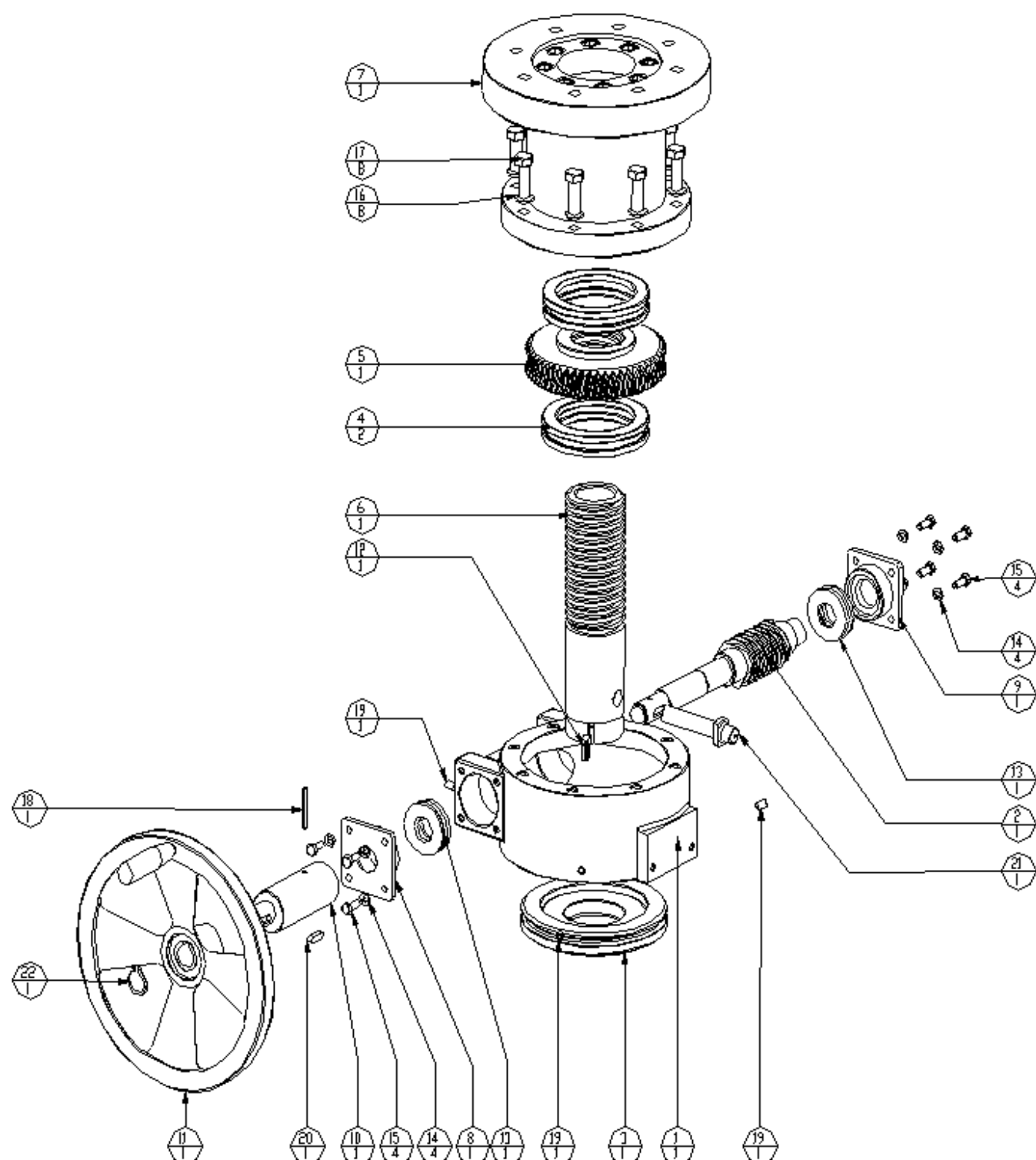
Operation and maintenance shall be carried out only by skilled staff.

It is not advisable that customers or end users (except STI S.r.l. duly authorized staff) modify the actuator characteristics.

If the accessory is mounted in a hazardous location requiring an ATEX certification, read and apply the "ADDENDUM 1: ADDITIONAL SAFETY PRECAUTIONS" of this instruction manual.

2.2 OPERATION

Manual override clutching or disengagement is made by using a cylindrical pin (fig. 1, pos. 21) which makes a rigid connection between the actuator stem and the manual override main screw (pos. 6).



Before operating manual override follow the operations below:

- Isolate the actuator from the air supply.
- Turn the bypass valve on the actuator and/or positioner to move actuator piston.



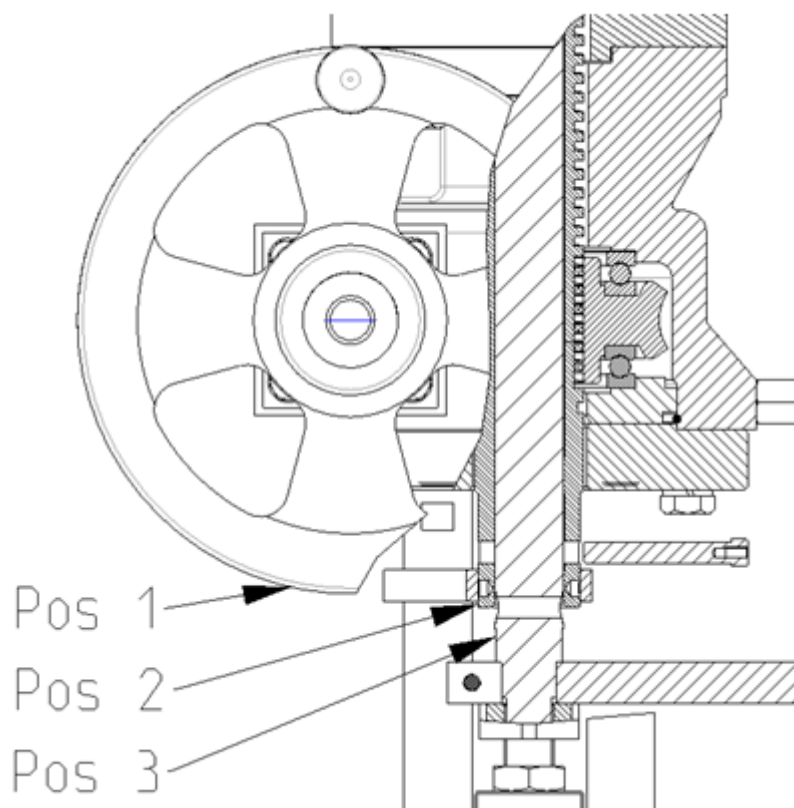
Severe damage to parts can result if operated with the bypass valve closed.

2.3 MANUAL OVERRIDE AS TRAVEL STOP ON STEM RETRACTED

Manual override can be used as travel stop during actuator stem retraction.

Rotate the handwheel of manual override (fig. 1, pos. 1) until the main screw (pos. 2) reaches the desired position to limit the stroke.

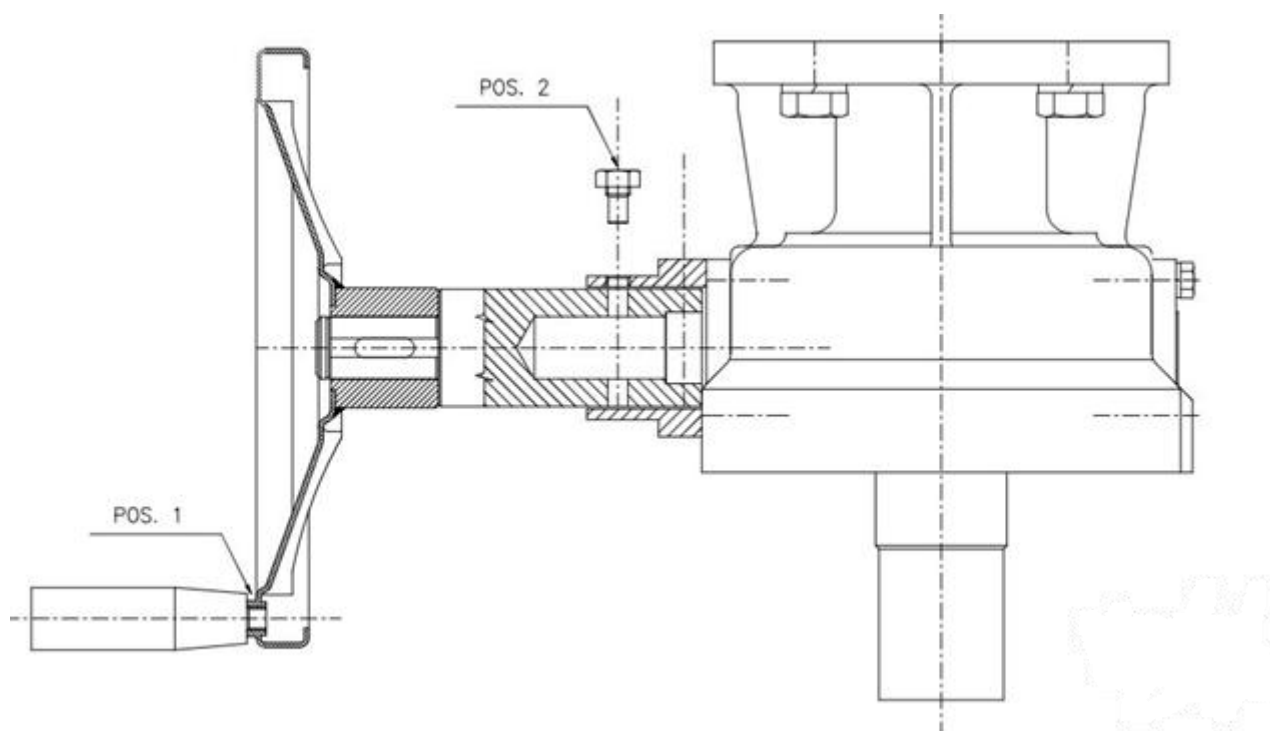
In this way actuator stem (pos. 3) cannot be retracted over mechanical travel stop made by main screw (pos. 2).



2.4 MECHANICAL LOCK OF MANUAL OVERRIDE (ON REQUEST)

Handwheel (fig. 3, pos. 1) can be lock mechanically using an external screw (pos. 2).

If you want to operate again with manual override, this screw (pos. 2) need to be removed.



3. MAINTENANCE

Before any type of operation and/or maintenance is made, make sure that:

- Staff is qualified for the required operation.
- Actuator, accessories and all connected equipment are in their safety conditions.
- Air supply is disconnected.
- Power or other energy sources and signals are removed.
- Cylinder chambers and relevant connections and accessories are not under pressure.
- Actuator is free from any cinematic mechanism.

The maintenance operations listed hereunder are recommended:

- Lubricate of external mechanical devices in motion every six months.
- Add grease (AGIP MU EP) into the gearbox as necessary using the relevant lubricator.

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Manual Override

ADDENDUM 1: ADDITIONAL SAFETY PRECAUTIONS



IMPORTANT

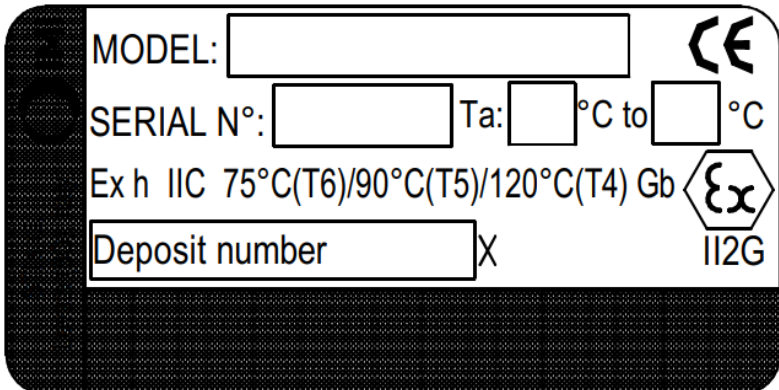


To be read, and understood, in conjunction with the rest of the manual.

The Manual Override (GR) accessory is ATEX certified under the following standards:

- DIRECTIVE 2014/34/UE.
- EN ISO 80079-36.
- EN ISO 80079-37.

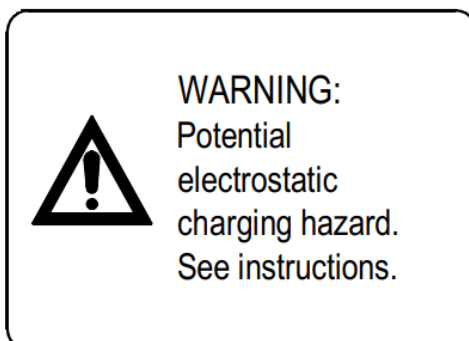
When certified, the product will be marked with the following label (or a similar one with the same information):

Ex h IIB T4/T5/T6 Gb or Gc	Ex h IIC T4/T5/T6 Gb or Gc
	

In any case, to ensure that the accessory is risk free during operations, any indication on this manual must be followed.

Some residual risks are present. Therefore, it is mandatory to follow the following instruction:

- The accessory must be grounded. This can be performed in two ways:
 - Ensuring electrical continuity between the product and the actuator/accessory upon which it is mounted on. The actuator/accessory must be properly grounded.
 - If available, by using one of the threaded holes to connect an earthing cable. The earthing cable shall be secured by employing proper means to avoid any unwanted unscrewing or rotation of the connector.
- For any painted model, any charging mechanism stronger than manual rubbing must be avoided. When this must be respected, an additional label is positioned onto the casing, if the dimension of the accessory allows it:



**Process
Automation**

IMI STI – 2006_r04_En rev.04 29/10/2025



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