

T36 Pistols & Rifles

5.56 x 45 NATO

OPERATOR'S MANUAL

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 Before handling the weapon, read and mind the safety instructions!

Safety notes for the handling of weapons

These safety notes are valid in addition to the service regulations.

- When handling weapons special caution is necessary as position and direction of the weapon can be changed easily.
- The operator's manual must be carefully read prior to using the weapon.
- Non-observance of these instructions may result in risk to life and limb.
- This weapon should not be used after consumption of alcohol, drugs, medicine or in case of illness.
- When receiving or handing over the weapon, it must be made safe and the bolt must be in the rearward position.
- In case of problems and before cleaning the following must be checked:
 - the weapon is unloaded (cartridge chamber free),
 - the barrel is free of obstructions,
 - the magazine is removed, and
 - the safety is engaged.
- Always treat the weapon as if it is loaded and ready to fire.
- Never point the weapon at anyone while handling or checking. Always point in a safe direction.
- Keep your finger off the trigger while loading, unloading, drawing or otherwise handling the weapon.
- Always place the trigger finger against the trigger guard.
- The trigger may only be pulled if your sights are aligned to the target.
- Never use force when handling, disassembling, cleaning and assembling the weapon.
- Disassemble the weapon only as far as described in this manual.
- Always wear eye protection when using the weapon. When firing, your eyes are endangered by ejected cartridge cases or cartridge cases bounced off walls.
- Always wear hearing protection when using the weapon.
- Only use factory loaded and undamaged cartridges of the correct caliber.
- Mind that during firing the weapon's bolt moves back with high velocity. Hold the weapon in such a way that your hands are away from the moving bolt, in order to avoid injuries.
- Do not grasp over the muzzle and mind that the muzzle area is free when firing.
- Store the weapon separately from ammunition and beyond the reach of unauthorized persons.
- The proven T36 design ensures maximum possible safety for the shooter.
- Tommy Built Tactical does not assume any liability for events due to disregarding this manual, wrong handling, negligence, improper treatment, unauthorized part exchange and other manipulations in, with, or at the weapon.
- This operator's manual is included in the scope of supply of the weapon and always has to be passed on along with the weapon.

General

The T36 rifles and pistols are gas operated weapons with rotating bolt heads. Their receivers, pistol grips, folding stock/brace, and handguards are made of high-strength plastic material. This results in a very lightweight weapon.

Ammunition is fed from box-type magazines with a capacity of 30 cartridges. Several magazines may be coupled.

The carrying handle fits into the dovetail guideway on top of the receiver and is fixed there by means of screws. There are multiple top rail options available, see www.tommybuilttactical.com for additional options.

For cleaning and maintenance it is easy to disassemble the weapon into its main assembly groups without the use of tools.

Description of the assembly groups

Group 1 Receiver with barrel, buttstock and attaching parts

The receiver is made of high-strength fiber-reinforced plastics. It houses all the other assembly groups. Inside the receiver there are guideways for the bolt as well as contact surfaces for the pistol grip, the backplate and the magazine well.

The barrel is fastened and centered to the receiver by means of a nut.

The flash hider/muzzle brake is screwed onto the muzzle. Behind the muzzle device there is the gas block which is fastened by means of a cross pin.

The carrying handle/top rail is mounted onto the guideway on top of the receiver and fastened there by means of three or two screws depending on the specific top rail installed.

On the right side of the receiver there is the ejection port with the cartridge case deflector. The cartridge case deflector directs the ejected cases and also serves as a catch for the folded buttstock.

Handguard, magazine well and pistol grip are fitted to the bottom of the receiver by means of locking pins.

At the rear of the receiver there is the hinge for the folding buttstock.

Gas operation assembly

The gas block is fastened with a cross pin to the barrel. After the bullet has passed the gas vent hole in the barrel, a portion of the propellant gases is guided into the gas block cylinder and act upon the gas piston.

The gas piston drives the bolt assembly via the push rod to the rear. The return spring on the push rod returns the rod to its starting position.

Buttstock

A pin passing through the buttstock hinge fastens the buttstock to the receiver. Pressing the push button on the left of the buttstock unlocks the buttstock which can then be folded to the right all the way where it clips into the deflector stud at the ejection port. With the buttstock folded, the weapon is 240 mm shorter. Firing and case ejection are not disturbed when the buttstock is folded, as cases are ejected through the buttstock. For extending the buttstock it is lifted off its clipped position and unfolded.

A rubber pad at the rear of the buttstock provides a soft and non-skid shoulder rest. At the front of the buttstock frame there are holes for holding the locking pins which have been removed during disassembly. Another eyelet for the carrying sling is provided at the rear of the buttstock.

Magazine well

The front of the magazine well engages into two support studs on the receiver. For fastening the magazine well is swiveled upward. A locking pin fastens both the pistol grip and the magazine well to the receiver. When the locking pin is removed the magazine well is retained by the magazine catch.

Group 2 Bolt assembly

The bolt assembly with the rotary bolt head is guided in the receiver. The bolt assembly is driven by the gas piston and the recoil spring and serves for feeding of the cartridges, locking of the chamber, cartridge ignition, case extraction and ejection as well as for cocking of the hammer.

The bolt head is retained in the bolt head carrier by the cam pin which also controls its rotary movement.

At its front the bolt head is provided with locking lugs. The spring-loaded extractor is located in a gap between the locking lugs. Adjacent to the extractor there is the spring-loaded ejector.

The firing pin is retained by the cross pin.

A cocking lever on the front end of the bolt head carrier can be swiveled to the left and to the right for actuation by both left and right handed shooters.

Group 3 Backplate with recoil spring

The backplate with recoil spring closes the receiver to the rear. The backplate is retained in the receiver by a lug and a locking pin which also holds the pistol grip.

The recoil spring guide rod with the recoil spring is rigidly locked to the backplate. Rearward movement of the bolt assembly is stopped by a buffer. A knob at the rear of the backplate simplifies its assembly.

Pictures of bolt assembly (page 14)

Group 4 Pistol grip with trigger mechanism

The pistol grip with ambidextrous safety/fire selector levers contains the trigger mechanism and the bolt catch. The grip is fastened to the receiver by means of two locking pins.

At the front of the trigger guard there is the bolt catch slide which is used for holding the bolt open in case there is no empty magazine inserted.

There are safety/fire selector levers on both sides of the grip.

The safety/fire selector levers can be placed in 2 positions:

Safe

Single fire

Trigger variants

The T36 is a semi-automatic only firearm. None of the Heckler and Koch G36 pistol grip and trigger mechanisms will fit or operate within the T36 receivers. Conversion services may be available. Contact Tommy Built Tactical via the website:

www.tommybuilttactical.com

Group 6 Handguard

The detachable handguard encloses the barrel and the gas block assembly.

The handguard is positioned at the receiver by means of two support studs and is fastened there by means of a locking pin.

Handguards may come equipped with hand-stops or an eyebolt.

The eyebolt is located at the front end of the handguard. It serves as a bipod axle and a sling attachment point.

Hand-stop equipped handguards screw onto the handguard and also provide two sling attachment points on the left and right sides.

There are also handguards with threaded bushings available that allow the mount of picatinny rails on the sides and bottom.

Group 8 Magazine

The magazine holds a maximum of 30 rounds.

The magazine housing consists of impact-resistant transparent plastic which permits the visually checking of the loaded condition of the magazine from the outside.

The right sidewalls of the magazine are provided with two female couplings whereas the left sidewalls are provided with two corresponding male coupling studs. These couplings permit the attachment of several magazines to each other.

The magazine consists of:

- Magazine housing
- Magazine floor plate
- Follower
- Follower spring

Handling and operation

Loading of the magazine

- Hold the magazine with one hand. Place the cartridges with the other hand between the magazine lips and push the cartridge with the thumb underneath the lips.
- Repeat this operation until the magazine is fully loaded or until the desired number of rounds are inside the magazine.

Note: A cartridge symbol and the figure 30 are visible on the right upper side of the magazine. This means that the magazine has a capacity of 30 rounds and that the uppermost round in a fully loaded magazine must be located on the right side.

Unloading the magazine

- Hold the magazine with one hand. Push the cartridges out of the magazine with the thumb of the other hand, mind that the removed cartridges do not drop on a hard surface or get otherwise damaged.

Note: Loading and unloading of the drum magazines is done in the same way as with the 30 round magazines.

Loading by means of the magazine loader

- Place the magazine loader with its opening to the right side of the magazine on top of the magazine.
- Insert the rounds into the magazine loader.
- Push the loader slide all the way down.

- Lift the magazine loader slide all the way, repeat, until the magazine is fully loaded or until the desired number of rounds are inside the magazine.

Note: Loading the drum magazines with the magazine loader is carried out in the same manner as loading the box-type magazines.

Principle of operation

By means of a nut the barrel is tightly screwed to the barrel extension. The bolt head carrier houses the bolt head which can move along its longitudinal axis inside the bolt head carrier. Additionally, to its longitudinal movement the bolt head can also pivot around its longitudinal axis.

In the locked condition the bolt head is in the foremost position. The bolt head in the bolt head carrier is turned in such a way that the locking lugs of the bolt head engage in the corresponding locking lugs of the barrel extension.

Starting position: The T36 is now loaded and the safety/fire selector lever on fire.

Pulling the trigger releases the hammer which hits the firing pin. The cartridge is ignited.

The propellant gases accelerate the bullet. As soon as the bullet has passed the gas vent hole, a portion of the gases enters the gas block.

These gases push the bolt head carrier via the gas piston and the push rod to the rear. The camming slot in the bolt head carrier causes the cam pin to pivot downward, which in turn rotates the bolt, unlocking the bolt head.

The locking lugs disengage. The bolt head disengages (unlocks) from the barrel extension. The bolt head carrier and bolt head move to the rear.

The extractor in the bolt head extracts the cartridge case from the chamber. When the bolt assembly passes the ejection port, the spring-loaded ejector ejects the cartridge case to the right.

The rearward movement of the bolt assembly compresses the recoil spring and cocks the hammer.

Drive by the recoil spring, the bolt assembly moves forward and pushes the uppermost cartridge out of the magazine into the chamber.

The bolt head contacts and stops at the rear face of the barrel and the bolt head carrier continues its forward movement which rotates the bolt head via the cam pin and the camming slot into the locked position.

The firing pin tip can only protrude from the bolt face and hit the primer when the bolt is fully locked.

The T36 is now ready to fire again.

Loading the T36

Situation 1: No magazine in the T36

The bolt is in its forward (locked) position

- Set the safety/fire selector lever at "Safe"!
- Swivel the cocking lever to the left or to the right, pull it all the way to the rear and hold it.
- Push the bolt catch upward.
- Insert a loaded magazine into the magazine well until the magazine catch clearly engages.
- Swivel the cocking lever out, pull it all the way to the rear and release.

The T36 is now loaded and set at safe.

Situation 2: The magazine in the T36 is empty

The bolt has been caught in its rear position

- Set the safety/fire selector lever at safe!
- Actuate the magazine catch and detach the empty magazine

- Insert a loaded magazine into the magazine well until the magazine clearly engages.
- Swivel the cocking lever out, pull it all the way to the rear and release.

The T36 is now loaded and set at safe.

Forward assist

If the exterior of the T36 is heavily fouled (sand, mud, etc.) the cocking lever can also be used as a forward assist.

For this purpose

- Swivel out the cocking lever and push it against the bolt head carrier (the cocking lever remains in its swiveled position).
- Push the bolt head carrier with the cocking lever to the front until it fully locks.
- Pull the cocking lever outside and let it swivel to its initial position (in alignment with the bolt head carrier).

For firing

- Place the safety/fire selector lever downward on "fire".
- Pull the trigger. The cocked hammer is released and the cartridge in the chamber is ignited by the firing pin.

Unloading

- Set the T36 at "safe".
- Remove the magazine.
- Unload, swivel out the cocking lever and pull it back.
- Make sure that there is no cartridge in the chamber, and let the bolt snap forward.

Disassembly of the T36

Note!

The T36 is disassembled and reassembled without tools. Do not use any force. The user of the weapon is not allowed to disassemble the weapon beyond the scope of this description. Such disassembly may only be carried out by qualified maintenance personnel.

Checking the loading condition

- Set the T36 at "Safe"!
- Remove the magazine.
- Unload, swivel out the cocking lever and pull it back.
- Check whether the chamber is clear and let the bolt snap forward.

Stripping into assembly groups

- Unhook the carrying sling at both ends.
- Unfold the buttstock.
- Detach both locking pins on the grip and insert them into the support holes on the buttstock.
- Remove the grip downward.
- Fold the buttstock.
- Remove the backplate and the recoil spring to the rear.
- Pull the cocking lever to the rear and detach the bolt
- Pull out the locking pin at the handguard and detach the handguard to the front.
- Push the magazine catch, swivel the magazine well to the bottom and detach.

Disassembly of the push rod and the gas piston

- Push the push rod against spring pressure to the rear and remove it from the gas piston.
- Swivel the push rod aside and detach it to the front (except for the T36C where it is only possible to swivel the push rod to the side).
- Remove the gas piston to the rear.

Assembly of the push rod and the gas piston

- Insert the gas piston into the gas block.

- Introduce the push rod into the front part of the receiver, push it against the spring pressure into the receiver and let it slide into the gas piston.

Disassembly of the bolt assembly

- Push the firing pin retaining pin to the left (e.g. with gas piston) and detach.
- Remove the firing pin to the rear.
- Take out the cam pin to the left.
- Detach the bolt head to the front.

Assembly of the bolt

- Slide the bolt head with the extractor on the right. As viewed from the rear, into the bolt head carrier.
- Insert the cam pin from the left into the bolt head carrier and the bolt head, mind that the flat surfaces on the cam pin are parallel to the bore.
- Introduce the firing pin from the rear into the bolt head carrier and the bolt head.
- Insert the firing pin retaining pin from the left side into the bolt head carrier.

Disassembly of the magazine

- Press the bottom of the right sidewall inward until the front catch is disengaged.
- Push the magazine floor plate to the rear.
- Press the bottom of the right sidewall inward until the rear catch is disengaged.
- Remove the floor plate to the rear.

Attention: The magazine spring is under pressure!

- Remove the magazine spring and the follower to the bottom.

Assembly of the magazine

- Insert the follower and the magazine spring from the bottom into the magazine housing.
- Slide the magazine floor plate from the rear onto the magazine housing.
- Push the magazine floor plate all the way over the two catches onto the magazine housing.

Assembly of the T36

- Slide the handguard from the front over the barrel and the receiver. Align notches onto studs.
- Fasten the handguard with the locking pin.
- Place the front of the magazine well onto the bearing studs, swivel the rear of the magazine well upward all the way until it engages the magazine catch.
- Fold the buttstock.
- Insert the bolt assembly from the rear into the receiver.
- Insert the backplate with the recoil spring into the receiver so that the lug on the backplate engages into the pore of the receiver.
- Unfold the buttstock.
- Place the pistol grip from the bottom to the receiver (hammer between in the cocked and the de-cocked position) and insert the two locking pins.
- Set the T36 at "Safe".
- Check operations (cocking, check bolt catch function, unset the safety, pull the trigger, set the T36 again at safe).
- Insert the magazine.

Stoppages and breakdowns

Their causes and elimination

In the event of stoppages on the T36, the weapon is to be considered as loaded until the actual cause of the stoppage has been determined.

During the elimination of stoppages, safety precautions are to be taken into account.

In the event of stoppages on the T36, for example, the cartridge fired from the T36 is not ignited, the bolt assembly does not close completely, or the spent cartridge case is not ejected, the following immediate steps have to be taken:

1. Put the T36 on "Safe"!
2. Remove the magazine.
3. Unload the T36.
4. Ensure that barrel, cartridge chamber and receiver are free from obstacles.
5. Next determine and eliminate the cause of the stoppage.

The items indicated in the following do not cover all stoppages theoretically possible.
A given stoppage may also have been caused by other reasons than the ones indicated.

Stoppage, Fault	Cause	Remedy
Cartridge is not ignited	Ammunition fault dud (dud round)	Recock T36
	Tip of firing pin damaged or broken	Turn in T36 for repair
	Hammer spring damaged or broken	Turn in T36 for repair
Bolt has not opened after the shot	Cartridge case stuck in chamber due to deformation or dirty chamber	Unload: Retract bolt to eject cartridge case, clean, if fouled. If required, turn in T36 for repair
	Gas drive unit fouled or defective	Clean gas piston. If required, turn in T36 for repair
Bolt not closed completely cartridge not fully fed	Cartridge chamber dirty	Clean cartridge chamber
	Barrel extension dirty	Clean barrel extension
	Cartridge damaged	Recock manually
	Recoil spring lame	Turn in T36 for repair
	Incomplete cocking movement	Release cocking lever, let it snap forward without holding on to it

Stoppage, Fault	Cause	Remedy
Cartridge case not extracted or ejected	Cartridge chamber dirty	Clean cartridge chamber
	Ejector or ejector spring broken	Turn in T36 for repair
	Ejector or ejector spring damaged	Turn in T36 for repair
	Insufficient bolt recoil	Unload: Use cocking lever to retract bolt. Remove cartridge case. Check for smooth running and check cartridge chamber for fouling, if required, clean cartridge chamber
No cartridge fed by bolt	Magazine not properly inserted	Insert magazine properly
	Magazine loose	Check magazine catch and lugs. If required, turn in for repair.
	Follower spring lame	Replace magazine, turn in defective one for repair
	Magazine lips damaged	Turn in magazine well for repair
Bolt does not stay open after last shot	Follower spring lame	Replace magazine, turn in defective one for repair

Stoppage, Fault	Cause	Remedy
T36 trigger cannot be pulled with hammer cocked	Sear broken or compression spring lame	Turn in T36 for repair

T36 fires with markedly increased rate of fire	Tenon or gas piston broken	Turn in T36 for repair
Magazine stuck in magazine well	Magazine damaged	Replace magazine and turn in defective one for repair
	Magazine catch defective	Turn in T36 for repair

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Subject to modifications