



# NOBLE TRUCK SHUTTERS

MANUFACTURE - INSTALLATION - REPAIRS

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## ROLLING TYPE SHUTTER INFORMATION FOR STANDARD CAPSTAN SET UP

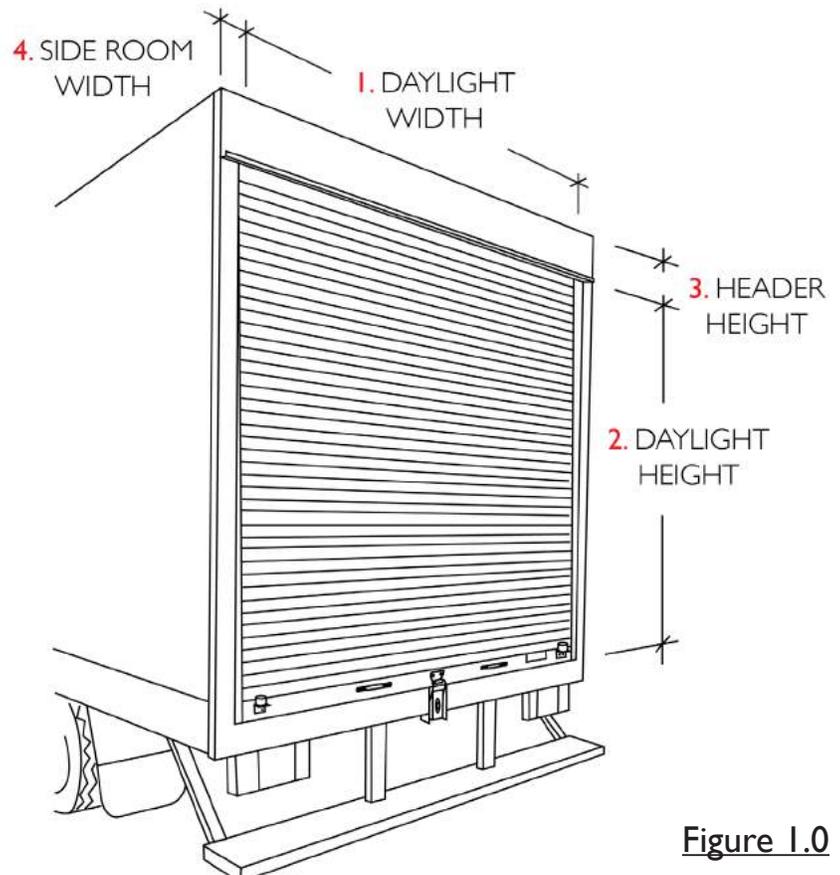
Please see the “OUR PRODUCTS” page of this site for individual component measurements and shutter options.

Rolling type shutters are usually used when larger shutters are required such as in the rear of pantechs, and also on smaller shutters where the use of a sliding shutter is not an option.

Information required for the manufacture of rolling shutters includes: (See Figure 1.0)

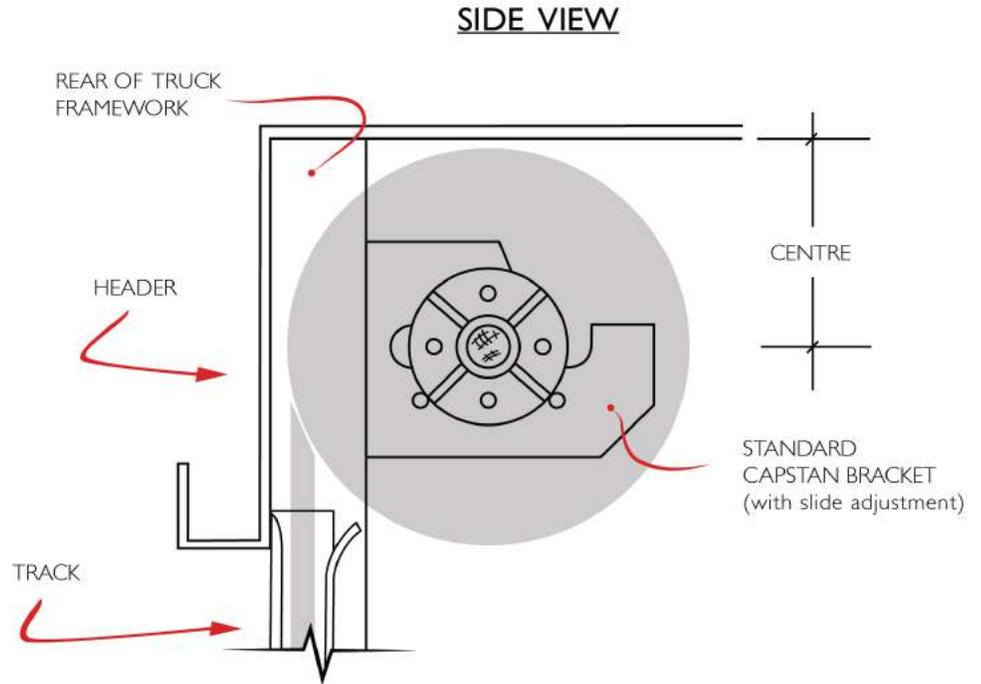
1. Daylight width,
2. Daylight height,
3. Header height,
4. Side room width,
5. Fit between (recommended)  
or Fit behind,
6. Shutter finish,
7. Track type required,
8. Lock type required.

Please note that on larger shutters, it is imperative to measure the opening daylight width at the bottom, the middle and the top in case the opening is out of square.



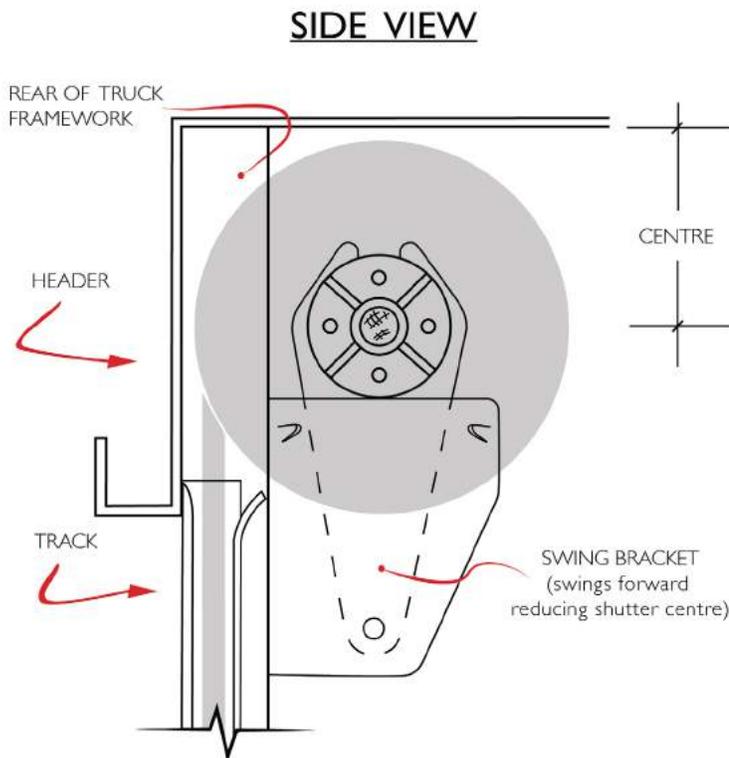
**Figure 1.0**

Most commonly used in larger trucks, these shutters need a central sprung roller to allow for easy operation. The roller is mounted into a bracket system that is welded onto the truck body framework. Rolling up tightly around the spring assisted roller and fitting behind a header panel to cover the roll. They travel up and down in vertical tracks only (See Figure 2.0).



**Figure 2.0**

They are also used as smaller shutters on service bodies within toolboxes, where the use of a sliding type shutter track system is inconvenient. On the smaller type rolling shutters, aluminium or steel capstan brackets can be welded to the interior of the toolbox.



**Figure 2.1**

The header size is determined by the diameter of the rolled up shutter. On larger shutters, it is recommended to make the header as large as possible to minimise deflection between the shutter curtain and header when the shutter is in the fully closed position. Usually, a pantech truck will need a header of approximately 250mm, where as a smaller service vehicle shutter may only need around 200mm.

If a smaller header is required on a larger shutter, then the use of swing brackets is recommended. However, bear in mind that a large shutter will roll up at a diameter of around 230mm so having a smaller header than this size is not recommended (See Figure 2.1).

This type of shutter can be fitted with several different types of locking systems.

**PLEASE NOTE:** When the shutter is in the fully opened position, the bottom rail will sit under the header subtracting 70mm from the daylight opening height when using all types of bottom rails excluding the barlock bottom rail, which will subtract 130mm from the daylight opening height.

At least 50mm is required on each side of the shutter opening to create enough side room for the bracket and capstan set up to be installed. The capstan and bracket system will take up 46mm leaving 4mm to spare (See Figure 3.0 & 3.1).

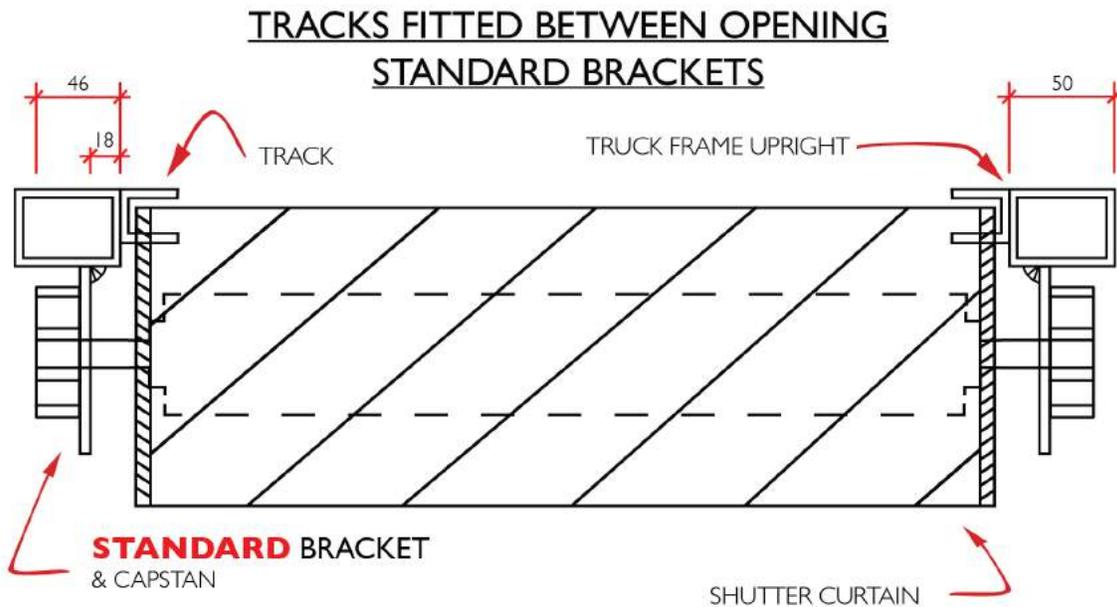


Figure 3.0

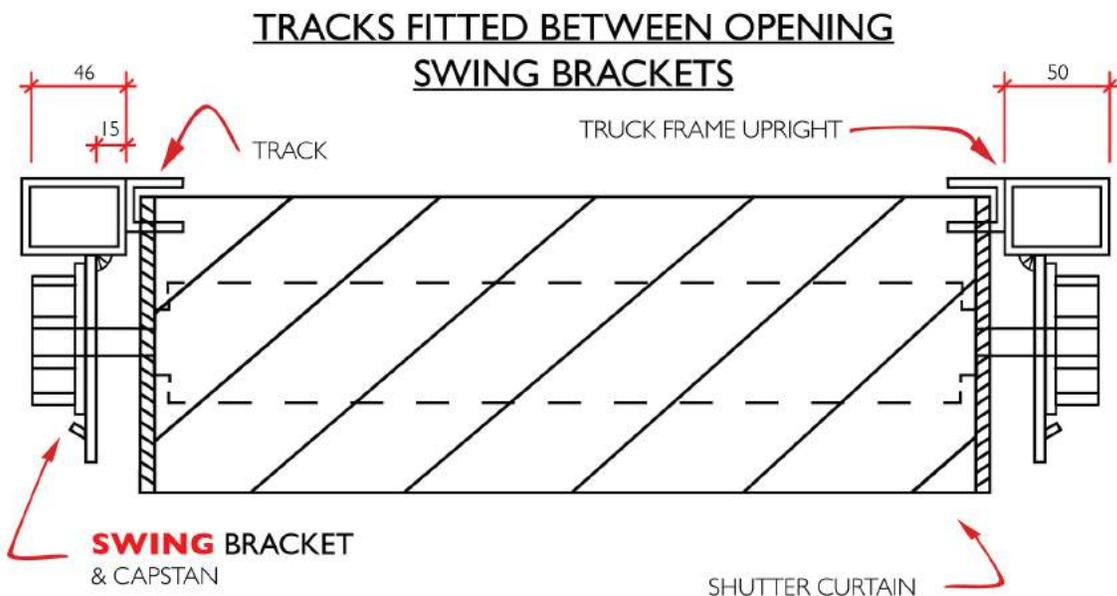
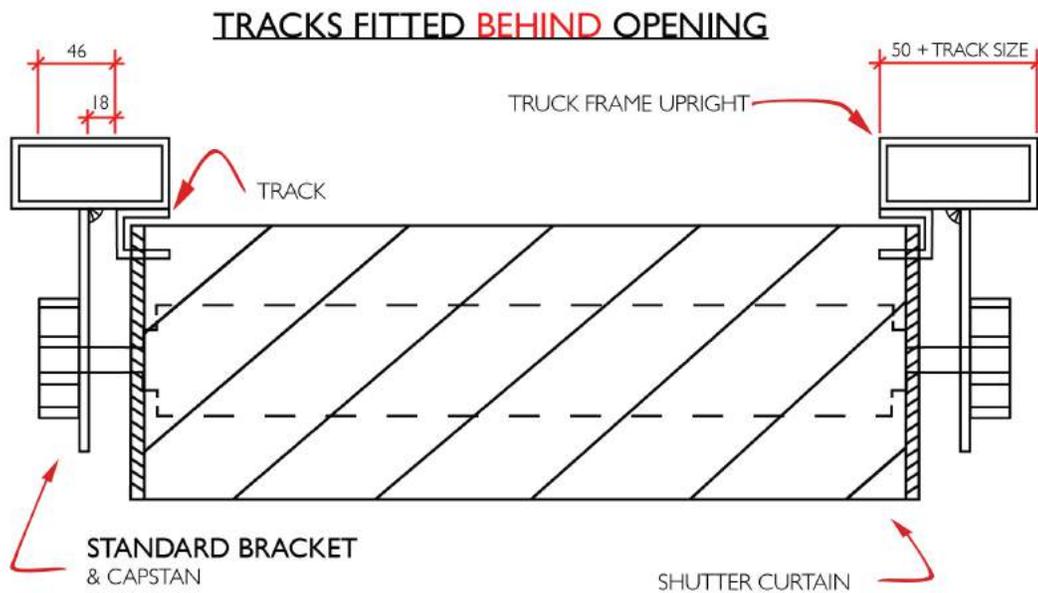


Figure 3.1

The tracks of the shutter usually **'FIT BETWEEN'** the daylight opening width. Using this method is the simplest option and prevents any mis-calculations. This means that on each side, the tracks are fitted toward the centre of the opening. They project into the opening by the amount dependant on the size of track supplied (See Figures 3.1 & 3.2).

Sizes are 25mm for standard sized tracks, or 38mm for the deeper style tracks. This makes the final 'between tracks opening' size 50mm or 76mm smaller than the daylight opening, respectively (once tracks are installed to both sides of opening). The **'FIT BETWEEN'** method keeps the shutter all the way to the edge of the vehicle, making a weather step easier to achieve as well as installing a centre clamp lock or quick release barlock system.



**Figure 4.0**

When using the **'FIT BEHIND'** installation method, more side room is required for the bracket and capstan set up plus the track size (See Figure 4.0).

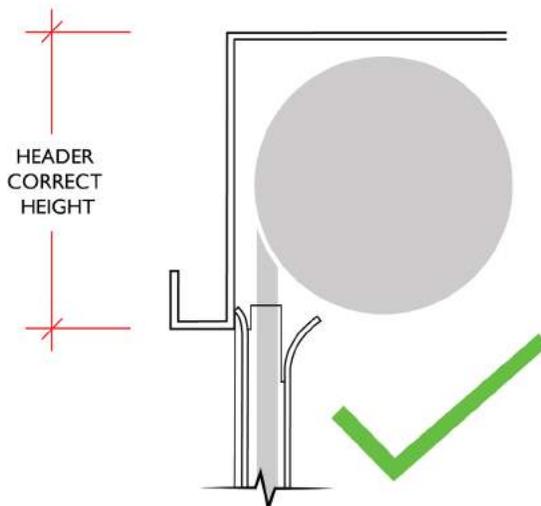
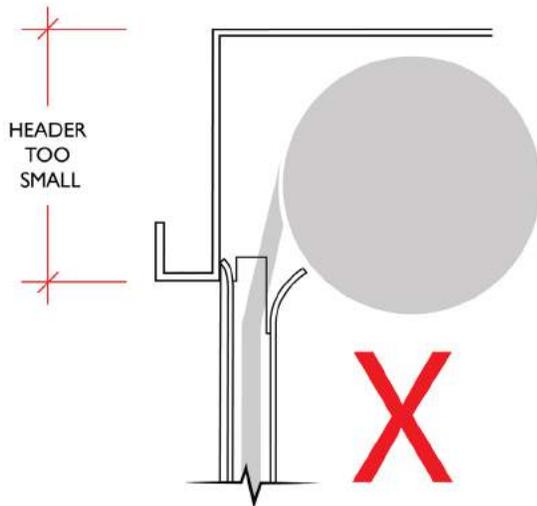
Example: If you are using 25mm tracks, then you will need the 50mm of side room for the bracket and capstan set up plus, another 25mm for the track, equalling 75mm in total side room on each side of the opening. If using the 38mm tracks, you will need the 50mm side room for the bracket and capstan set up plus, 38mm for the track, equalling 88mm of side room on each side of the opening. If you do not have this spare side room, then the track will extend into the opening. So this method can introduce the opportunity for incorrect measurements.

In this instance, a weather step is harder to achieve and a centre clamp lock or bar lock system may be impossible to install.

A weather prevention system should be built into the vehicle's bodywork so that any excess water run off that funnels down through the tracks makes it's way to the outside of the vehicle. This can be achieved as a small step in a pantech or an angled sill in a toolbox.

# ROLLING TYPE SHUTTER INSTALLATION WITH STANDARD CAPSTAN SET UP.

**PLEASE READ CAREFULLY BEFORE ATTEMPTING INSTALLATION**



If a shutter is installed incorrectly, it will suffer wear and tear quicker than a well installed shutter.

A common mistake is to have a header which is too small to cover the roll of the shutter adequately.

This will force the track curls to be too high and in turn, the shutter mounted too far away from the header.

When the shutter is in the open position, the curtain should be as close to the header as possible. The bottom of the header should be lower than the bottom of the rolled up shutter.

To this point, tracks should be fitted last once the shutter is positioned correctly.

A shutter must be installed correctly to minimise deflection across the shutter at the header and to also minimise pressure on the ends of the top slats which are positioned at the track lead in curls when the shutter is in the closed position. Most wear and tear on a shutter will start at this point and quickly get worse if not corrected.

# ROLLING TYPE SHUTTER INSTALLATION WITH STANDARD CAPSTAN SET UP.

**PLEASE READ CAREFULLY BEFORE ATTEMPTING INSTALLATION**  
**TWO INSTALLERS ARE REQUIRED FOR LIFTING AND TENSIONING**  
**LARGE TRUCK SHUTTERS**

## **1. CENTRE**

Measure the centre of the supplied shutter from the middle of the axle to the outside of the bottom rail. You will need to add another 10-15mm to this measurement for clearance. Mark the measurement down from the ceiling of the truck on each side of the opening.

## **2. BRACKET INSTALLATION** **'FITTING TRACKS BETWEEN'**

### **USING STANDARD TYPE (STEEL) BRACKETS:**

Weld the brackets 18mm in from the edge of the opening (or the back of the track) to the face of the bracket with the middle of the axle slot in line with your centre measurement from the ceiling. (See figure 2.0 & 3.0)

### **USING STANDARD TYPE (ALUMINIUM) BRACKETS:**

Weld the brackets 17mm in from the edge of the opening to the face of the bracket with the middle of the axle slot in line with your centre measurement from the ceiling. The aluminium bracket is 4mm thick compared to the 3mm thick steel bracket, so the position from the edge of the opening is 1mm less.

### **USING SWING TYPE (STEEL) BRACKETS:**

Weld the brackets 15mm in from the edge of the opening to the face of the stationary plate with the bottom of the swinging plate's vertical axle slot being 10mm (or half the axle diameter) below your centre measurement from the ceiling. The swinging arm of the bracket and the pushed out tabs are installed away from the opening. It is paramount that this type of bracket is installed straight and in the correct position so as not to hinder the rocking motion of the shutter when being operated. (See figure 2.1 & 3.1)

## **'FITTING TRACKS BEHIND'**

Following the above mentioned steps for each type of bracket installation, you will also need to add the track dimension (25 or 38mm) to the measurement of how far the bracket needs to be from the back of the track. For example: using standard steel brackets and 25mm tracks, you would add 25 to 18, giving a measurement of 43mm. This is how far to set the bracket back from the edge of the opening in a **'FIT BEHIND'** situation.

### 3. LIFTING SHUTTER INTO POSITION

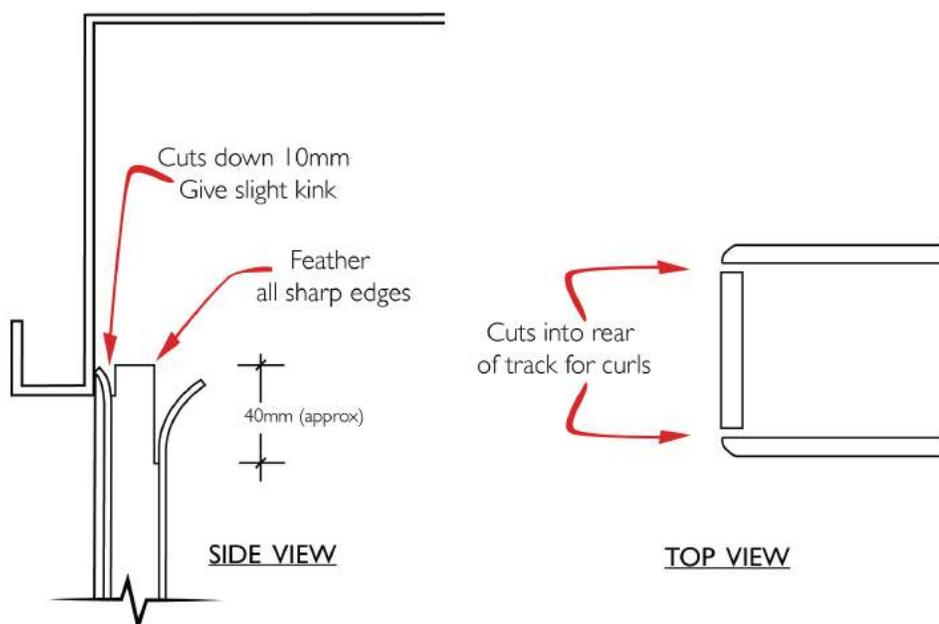
#### USING STANDARD TYPE (STEEL OR ALUMINIUM) BRACKETS:

Knock out the packers between the shutter curtain and capstans which keep the curtain central to the roller during transport. While the shutter is still in its packaging, making sure that it is situated the correct way around, lift it carefully into position. Two workers are required to ensure that the shutter is kept level whilst lifting, and that the curtain remains rolled up straight. Install the provided bolts loosely into the rear bracket holes furthest from the header, passing through the bracket and the nylon capstan on the end of the axle. Do this for both sides. At the end of the installation process, the shutter will need to be pushed toward the header creating a tighter centre in order to minimize deflection. But for now, it is better to have a little room to work.

#### USING SWING TYPE BRACKETS:

Remove the swing arm from each bracket by un-doing the 10mm pivot bolts. Knock out the packers between the shutter curtain and capstans which keep the curtain central to the roller during transport. Fit the swing arms to the shutter capstans using the capstan bolts/nuts provided which can be tightened immediately. While the shutter is still in its packaging, making sure that it is situated the correct way around, lift it carefully with the swing arms pointing toward the opening. Set it into position, by letting the arms rotate downward to slot in between the pushed out tabs of each stationary bracket welded to the bodywork of the truck.

Re-install the 10mm pivot bolts. Tighten them, then loosen them off just enough so that there is slight friction on the swing motion of the bracket system. The shutter should still be able to rock back and forth easily. A spray of WD40 between the plates is not necessary, but is always a good idea.



### 4. TRACKS

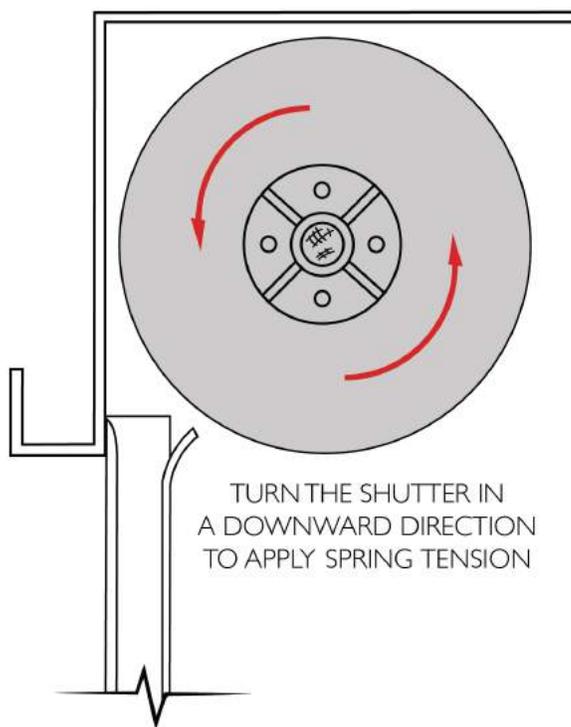
Cut the tracks to the desired length so that they are at least 10mm higher than the opening. Cut, curl and clean the top of each track remembering that a left and a right hand configuration is required (See Figure 5.0). Tack weld them into position. Make sure that the curl will not interfere with the operation of the shutter.

**Figure 5.0**

## 5. TENSIONING SHUTTER

**WARNING: DO NOT LET GO OF THE TENSIONED SHUTTER AS IT WILL TAKE OFF AND UNWIND UNCONTROLLABLY CAUSING DAMAGE TO ITSELF AND THE VEHICLE AND POSSIBLY HARMING THE INSTALLER.**

Cut off the shutter's outer cardboard packaging, leaving the inner plastic taped up. Turn the shutter in a downward direction to apply tension. Between 3-6 turns are required depending on size of shutter (the bigger the shutter, the more turns of tension required). Cut the tape holding the shutter tight and pull the bottom rail into the tracks. Affix the supplied stops or shoot bolts so that the shutter cannot lose tension (See Figure 6.0).



**Figure 6.0**

The packers supplied between the shutter capstans and curtain are there to keep the curtain rolled up straight during transport and central to the opening. You must check that the shutter curtain is still centred in the opening and has not been knocked one way when installed into the brackets. The very top slat of the curtain that joins to the roller needs to be central to the opening. If it is not, you must remove the hardware and pull the shutter curtain back out of the top of the tracks and bring it down behind the tracks. Pull the curtain all the way down until the very top slat is exposed. Take care not to damage the lower part of the shutter curtain by dragging it on the truck body's floor. Using a pinch bar, lever the top slat back to centre and start to raise the shutter slowly. Lever the rest of the curtain back to centre whilst slowly raising

the shutter. You may need to nudge the curtain on either side every few hundred millimetres to keep it aligned. All the end clips should be in line with each other and central to the opening when you pull the bottom rail back into the tracks.

*This step can be avoided by carefully lifting the shutter into place without knocking it.*

## 6. TESTING THE TENSION

Once in the tracks, fit the provided angle rubber stops or shoot bolt locks so that the shutter will stop at the header and can no longer pull out of the tracks. Pulling the shutter downward, it should feel as if it wants to go back to the header. When nearing the middle of the opening height, it should want to stay stationary. When pulled all the way to the bottom, the shutter should want to lift slightly by itself.

The shutter should never want to fall. This would mean that the shutter has been under-tensioned. Add another turn of tension and then refit the bottom rail fittings including handles. The shutter tension should also not be too strong, wanting to take off toward the ceiling of the vehicle extremely fast. This would be over-tensioned and a turn may need to be taken off.

## 7. FITTING HARDWARE

For spring loaded shoot bolt, T-handle, Flush lock and Bar lock bottom rails, you will need to open holes through the tracks and stiles of the truck in order for these to move into the locked position. Cut the holes as low as possible so that the shutter does not jump up and down when locked. Excessive wear is the result of locking holes that are cut too high.

*For these and all other locking system installations, please see the “Locking Systems” downloadable PDF.*

## 8. DECREASING THE CENTRE

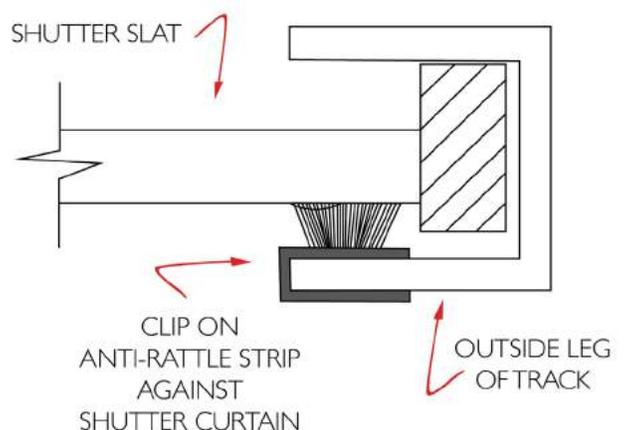
### USING STANDARD TYPE BRACKETS:

The shutter should be as close to the header as possible. Take out the capstan bolt on one side only. With the shutter in the fully opened position, push the roll toward the header. Install the capstan bolt/nut into the adjustment hole that is closest to where the capstan is now sitting. You may need to use a pair of vice grips on one of the capstan fins to rock the axle back and forth until the bolt pushes through. Once the bolt/nut is loosely fitted, repeat for the other side. Tighten the capstan bolts/nuts. The shutter should not be so close to the header that it prevents smooth operation.

*Note that lubricants are not required for the shutter operation. However, WD40 spray or equivalent is recommended for smoothness. It will not attract unwanted dirt and grime and will help ease unwanted friction.*

## 9. ANTI-RATTLE STRIP

If anti-rattle strip has been supplied for standard tracks, simply cut it to the ‘daylight opening height’ and push it onto the front leg of the track with the pile facing the shutter curtain (See Figure 7.0). An adhesive within the push on clip channel of the anti-rattle is not necessary, however, a small amount every few hundred millimeters is recommended for longevity.



**Figure 7.0**