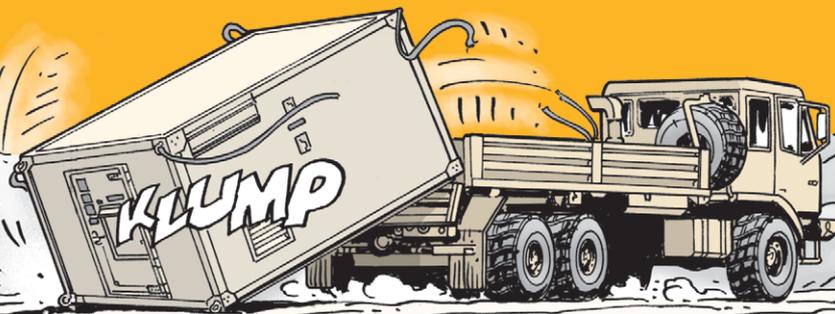


Shelters...

The Right Type of Hookup



Secure a shelter to a 2 1/2- or a 5-ton FMTV truck. Sounds simple enough, but can you do it the right way?

Troops have enough to think about while conducting vehicle operations. Properly securing and checking loads removes one possible problem—shifting loads—from their list of things to be concerned about.

Some units use many types of tiedown methods to secure their shelters. But only the authorized method should be used to secure storage and equipment shelters to 2 1/2- and 5-ton cargo trucks.

HERE'S THE GUIDANCE THEY SHOULD HAVE FOLLOWED...



Correctly Securing a Shelter

THINK BACK A MINUTE TO SIR ISAAC NEWTON AND HIS FIRST LAW OF MOTION...



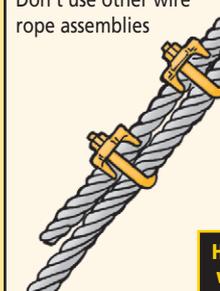
AN OBJECT AT REST TENDS TO STAY AT REST AND AN OBJECT IN MOTION TENDS TO STAY IN MOTION WITH THE SAME SPEED AND IN THE SAME DIRECTION UNLESS ACTED UPON BY AN UNBALANCED FORCE.

The sling leg assembly's tension is an important unbalanced force that will keep the shelter on the back of the truck and keep it from shifting rearward or forward under quick acceleration or deceleration.

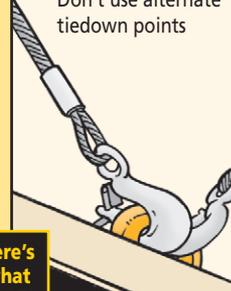
Although empty shelters weigh approximately 1,400 pounds, they could have a payload weight of up to 5,000 pounds, resulting in a total shelter weight of 6,400 pounds. You should **never** use nylon cargo straps to secure a shelter to a 2 1/2- and 5-ton cargo truck because the shelter and its contents are too heavy. Nylon straps stretch and they're no match for a shifting shelter!

When securing a shelter to a 2 1/2- and 5-ton FMTV cargo truck, you must ensure that the tension of the tiedowns will keep the shelter in place. Place the turnbuckles low, near the bed of the truck—not at the top of the shelter—so you can reach them. Then you can make sure the tiedowns are tight and have the proper tension.

Don't use other wire rope assemblies

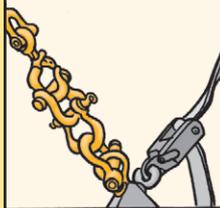


Don't use alternate tiedown points



Here's what NOT to do!

Don't combine shackles



Don't use nylon cargo straps



Tiedown Requirements

There are three different tiedown kits for securing the S-280 shelter to FMTVs. The M1085 uses NSN 3990-01-494-6074 (PN 57K4447), the M1083 uses NSN 3990-01-488-4320 (PN 57K4378), and the LMTV model 1078 uses NSN 3990-01-494-6071 (PN 57K4449).

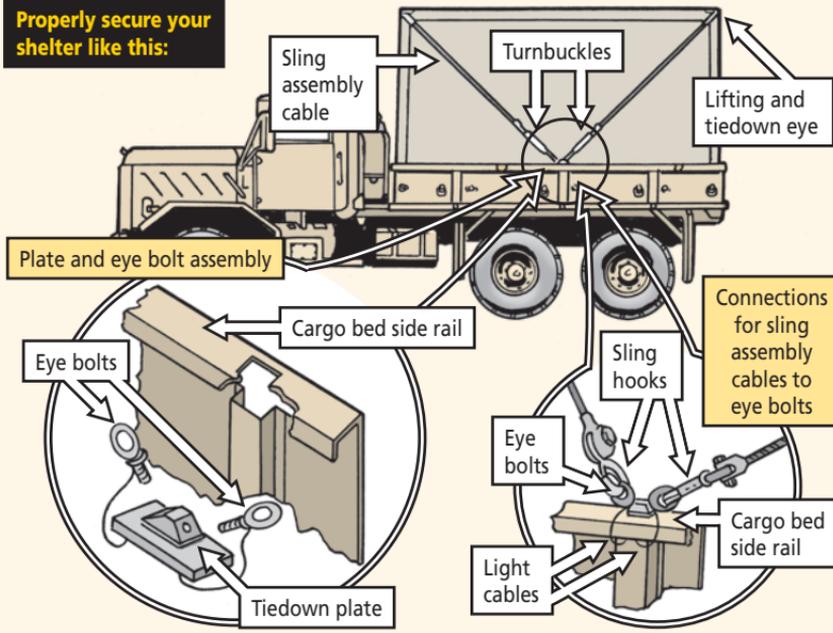
The correct tiedown method is explained in the following publications:

- TM 9-2320-392-20, EM 0195, under "Special Purpose Maintenance Work Packages"
- Military Traffic Management Command Transportation Engineering Agency (MTMCTEA) Pamphlet 55-20, *Tiedown Handbook for Truck Movements*
- TM 10-5411-207-14, *Operator's, Unit, Direct Support, and General Support Maintenance Manual for Shelter, Electrical Equipment S-280C/G*
- TM 11-5411-216-14&P, *Operator, Unit, Direct Support (DS), and General Support (GS) Maintenance Manual for Electronic Equipment Storage Shelter: S-744/TSM-191 V*

Each publication calls for the use of a steel, multiple-leg sling assembly, NSN 3940-00-805-5533. (Note that this item used to be NSN 3940-00-846-9858.) This NSN may still appear in some documents; however, only the new NSN, 3940-00-805-5533, should be used when ordering the sling assembly.

This sling assembly is used to lift the shelter on and off a 2 1/2- and 5-ton cargo truck and to secure the shelter to the vehicle. It comes with all of the hardware needed for both tasks, including the plate and eyebolt assembly. For many shelters, the sling assembly is the only basic issue item that comes with them.

Properly secure your shelter like this:



Proper tension is applied to each sling leg by hand-tightening the turnbuckle until it's tight. Then you'll need to turn it an additional half turn using a bar or wrench inserted into the turnbuckle's opening.

Avoid Common Mistakes

Common mistakes made by units include using:

- unauthorized wire rope assemblies
- various combinations of shackles
- alternate tiedown points on the cargo truck
- nylon cargo straps to secure shelters

That's a No Go!



WE CAN'T CHANGE THE FIRST LAW OF MOTION THAT SIR ISAAC NEWTON IDENTIFIED MANY YEARS AGO.

BUT WE **CAN** SECURE OUR LOADS SAFELY TO PROTECT BOTH SOLDIERS AND CARGO FROM DAMAGE BY USING THE RIGHT TYPE OF HOOK-UP.

READING THE APPROPRIATE EQUIPMENT TECHNICAL MANUALS AND REVIEWING MTMCTEA PAMPHLET 55-20 WILL HELP YOU SECURE YOUR HEAVY SHELTERS **CORRECTLY AND SAFELY** ON 2 1/2- AND 5-TON FMTV CARGO TRUCKS.