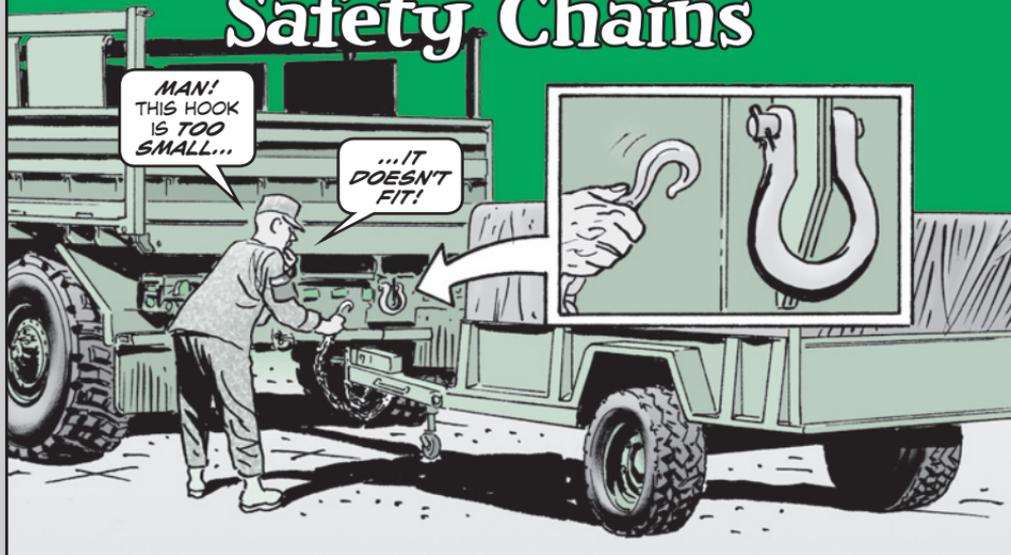


Rightsizing Trailer Safety Chains



Dear Editor,

We've received a lot of phone calls and email messages concerning safety chain connection issues with the FMTV tow vehicle and lunette trailers and dolly sets. The FMTV manufacturer increased the size of the FMTV's tow shackles. When they did this, the FMTV tow shackles fit the size and weight of the FMTV trailer. But, unfortunately, they don't fit the smaller hook size of the lunette trailers that must be towed.

We have developed a solution for the field. Here's what users should keep in mind when figuring out the correct length of lunette trailer safety chains:

FMTV trucks use tow shackles that are thicker and larger than the tow shackles on older 2 1/2- and 5-ton trucks. The safety chain hooks currently used on 1 1/2-ton and larger lunette trailers and dolly sets are not large enough to attach to the FMTV tow shackles. Therefore, you will need to use a larger safety chain hook that will attach to the FMTV tow shackles.

A second problem is that current production FMTV trucks now have the pintle extended eight inches to the rear from where the earlier FMTV pintles were mounted in relationship to the tow shackles. The safety chains will be too short, so you'll need to make them longer.

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These steps will ensure that the trailer safety chains are the right size:

1. Remove the current hook and connecting link from the forward end of the trailer safety chains.

2. Couple the trailer to the FMTV at a 45-degree angle.

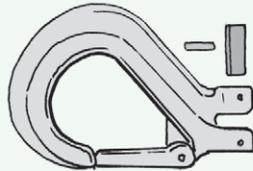
3. Attach the new safety chain hook to the FMTV tow shackle opposite the trailer angle.

4. Cross the safety chain under the trailer tongue. Then pull the end of the chain and eye or clevis end of the new hook toward each other.

5. Measure the distance between the eye or clevis of the hook and the end of the safety chain. Add the length of one more chain link. That will be the cut-length for the extension chain.

6. The connecting link joining the $\frac{3}{8}$ -in extended chain to the original $\frac{3}{8}$ -in chain will add the correct amount of slack to the safety chain without its being too long or too short. The same thing applies to the $\frac{1}{2}$ -in hook, two connecting links and extension chains.

If your towing vehicle is an FMTV and your lunette trailer or dolly set has a $\frac{3}{8}$ -in safety chain, use these materials:



Hook, NSN 4030-01-501-6946

Alternate $\frac{3}{8}$ -in connecting link, NSN 4010-01-379-0918



Chain, NSN 4010-00-286-5645

Length of chain extension to be determined by user



Existing chain



$\frac{3}{8}$ -in connecting link, NSN 4010-01-041-9751

Note that if you have an M105A3, M101A2 or -A3, or a lunette trailer with a surge brake device, you have to adjust the length of the breakaway cable/chain. Make it a bit shorter than the safety chains. Then if the trailer disconnects from the tow pintle, the breakaway cable/chain will fully actuate the trailer brakes before the slack in the safety chains is taken up.

If your towing vehicle is an FMTV and your lunette trailer or dolly set has a $\frac{1}{2}$ -in safety chain, use these materials:



Hook, NSN 4030-01-531-2978



$\frac{1}{2}$ -in connecting link, NSN 4010-01-344-9148



Alternate $\frac{1}{2}$ -in connecting link, NSN 4010-00-165-5607



Chain, NSN 4010-00-149-5584

Length of chain extension to be determined by user

Existing chain



$\frac{1}{2}$ -in connecting link, NSN 4010-01-344-9148

Note that when attaching to a truck that does not have the extended pintle, you will need to shorten the trailer safety chains so that they are not too long and drag or get caught on underbrush, commo wire or other hazards. One way is to twist the chain several times to take up the slack.

By the way, all but one model lunette trailer and dolly set have $\frac{3}{8}$ -in safety chains. Only the M345 model has $\frac{1}{2}$ -in safety chains.

All material listed in our solution have load limits that are as good as the original equipment safety chains. We've confirmed that both listed hooks fit the current FMTV tow shackles. Plus, all listed materials are available through the Army's supply system. Engineering, safety and the FMTV team have all approved this solution.

Note that all other guidance and previous PS Magazine articles related to lunette trailer safety chain length and hook size while FMTVs are the towing vehicle don't apply now. Disregard them and follow this guidance instead.

Trailer Equipment Specialist
TACOM-Warren

Editor's note: You've just hooked our readers up with some good information. Thanks!

