

MANUFACTURED HOUSING INSTITUTE

Transportation Resource Manual – Guideline 001

Securement of Shifting and Falling Cargo during Manufactured Home Transportable Section Movements

The Federal Motor Carrier and Safety Administration (FMCSA) revised its regulations concerning protection against shifting and falling cargo for commercial motor vehicles (CMVs) engaged in interstate commerce. The final rule was published in the Federal Register on September 27, 2002 at 67 FR 61212 (http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2002_register&docid=02-23693-filed.pdf).

The new rules require motor carriers to change the way they use cargo securement devices to prevent articles from shifting on or within, or falling from, CMVs. However, the rule generally does not prohibit the use of tie downs or cargo securement devices currently in use. Therefore, motor carriers are not required to purchase new cargo securement equipment to comply with the final rule.

The rule is effective December 26, 2002. Motor carriers must ensure compliance with the final rule by January 1, 2004.

MHI expressed concern about whether the rules would be applicable to the transportation of manufactured homes. MHI stated that various types of materials and supplies are shipped within the transportable sections from the point of manufacturer to the retailer/home site, where installation crews set the homes. The materials and supplies are used to complete the home. MHI also stated that the ship loose materials and supplies are spread out over several rooms, and often placed within closets, utility rooms, and/or other confined spaces within each transportable section. MHI requested that manufactured homes be excluded from the FMCSA final rule.

With regard to MHI's concerns, FMCSA published its response at 67 FR 61214, which stated, "transporters of the homes would comply by ensuring that materials and supplies used to complete the home, are positioned so that they cannot shift around inside the home while it is being towed to its installation site. Placing the items within closets and utility rooms or other confined spaces generally would satisfy the new requirements under §393.102."

1.0 Manufactured home producers can supply the necessary building materials, components, appliances, or equipment in the home transportable section for completion of the home on its installation site or for temporary set-up at the retailer location. These building materials, components, appliances, or equipment will be referenced throughout this guideline as "ship-loose materials."

2.0 Ship-loose materials means – any building material, component, appliance, or equipment that is shipped within the home during its transportation mode necessary for completion of the home on-site or for temporary set-up at the retail location.

3.0 Ship-loose materials can consist of, but not be limited to, the following items.

- 3.1 Exterior siding, soffits and fascia – siding, fascia, soffit materials, shutters and their fasteners (attachments), caulking materials, and close out trim materials.
- 3.2 Exterior roofing – hinged-roof components, shingles (hip, ridge and over roof vents), underlayment paper, drip edges, flashing materials, vents, skylights, and caulking materials.

- 3.3 Framing materials – sheathing, trim strips, decking, soffit returns, gable end walls and overhangs, roof ridge caps, dormer frame and components, collar ties, joist hangers, panelized walls, stairway walls and ceilings, and wood studs.
- 3.4 Exterior doors and windows – doorknobs, doors, windows, screens, sashes, and window jambs and sills.
- 3.5 Interior finishes – gypsum close-up materials, drywall joint tape, drywall corner beads, drywall compound, primer paints, and finish paint materials.
- 3.6 Interior doors – doors and associated hardware, doorstops and hardware, doorjambs, and hinged mounted doorstops.
- 3.7 Interior trim – door/window casings, base molding, trim paint, chair rails, cove molding, kitchen cabinets, mirrors, wainscotes, and center beam and trim.
- 3.8 Interior floor coverings – carpet, carpet pads, carpet tack strips, carpet seam tape, vinyl coverings, linoleum coverings, and adhesive materials.
- 3.9 Fireplaces – zero clearance fireplaces, glass enclosures, fireplace walls, vent pipes, chimney caps, firestopping materials, flashing materials, storm collars, exterior air packaged kits, flexible duct materials, and hearth materials.
- 3.10 Electrical – baseboard heaters, dryer vents, bath vents, range vents, fans, and smoke alarms.
- 3.11 Light fixtures – light globes, exterior light fixtures, kitchen sink light lens, basement stair lights, and attic lights.
- 3.12 Appliances – dishwasher, range, furnace, washer, dryer, and refrigerator.
- 3.13 Plumbing materials – water heater relief valves, shower rods, shower enclosures, towel bars, water closets, copper-piping materials, PVC piping materials, DWV materials, faucets, water lines, and pedestals.
- 3.14 Fasteners – nails, screws, washers and nuts, roofing nails, galvanized straps, cabinet shelf clips, and lag bolts.
- 3.15 Foundation support systems – ground anchors, stabilizer plates, concrete block, steel jack stands, and proprietary anchor systems.
- 3.16 Insulation – seal gaskets, house wraps, basement wall insulation, insulation materials, and spray foam insulation.
- 3.17 Stairs – stairs treads and risers, nosing, side plates, stair molding, basement steps, landings, split foyer landings and steps, handrails, newel posts, and guardrails.
- 3.18 Duct materials – heat ducts and crossover ducts.
- 3.19 Jacks and furniture – roof jacks for hinged roofs, and furniture.
- 3.20 Miscellaneous – other materials, assemblies or components as supplied by the manufacturer that are not listed in Sections 3.1 – 3.19.

4.0 Ship-loose materials can be positioned in the transportable section's interior spaces. Ship-loose materials can be placed in the following areas to resist shifting and/or falling en route to the home's temporary or final destination site: closets, utility rooms, living rooms, guest rooms, bedrooms, and dining rooms. Ship-loose materials can be placed in other areas of the home as determined by the manufacturer. These materials can be protected from damage by unnecessary movement during the transportable section movement when secured in accordance with Section 5.0.

***NOTE:** It is suggested that manufactured home producers include a provision for ship-loose items in their initial weight calculations of the transportable section.*

- 4.1 Heavy materials should be placed over or near the transportable section axles for best results against shifting and/or falling damage.
- 4.2 The manufacturer should follow the FMCSA regulations at 49 CFR 392 and 393 (as revised on September 27, 2002 at 67 FR 61212) regarding ship-loose item overloading of the transportable section.

5.0 Ship-loose materials should be secured from movement during transportable section movement to the home's temporary or final destination. The securement of the ship-loose materials should conform to one of the following methods. The securement system or devices should be capable of limited forward and lateral movement during the transportation mode.

- 5.1 Tie downs – nylon straps, plastic straps, plastic cover over ship-loose materials, pre-attached brackets, or wood blocks.
- 5.2 Fasteners – tie downs fastened to the home's interior surface by weighted blocks, lag bolts, screws, or nails.
- 5.3 Ship-loose materials may have sufficient weight to remain stationary during home movement.
- 5.4 Other – other methods can be used for small materials. These methods include boxed materials that may or may not need securement.

MHI - 06/09/04