

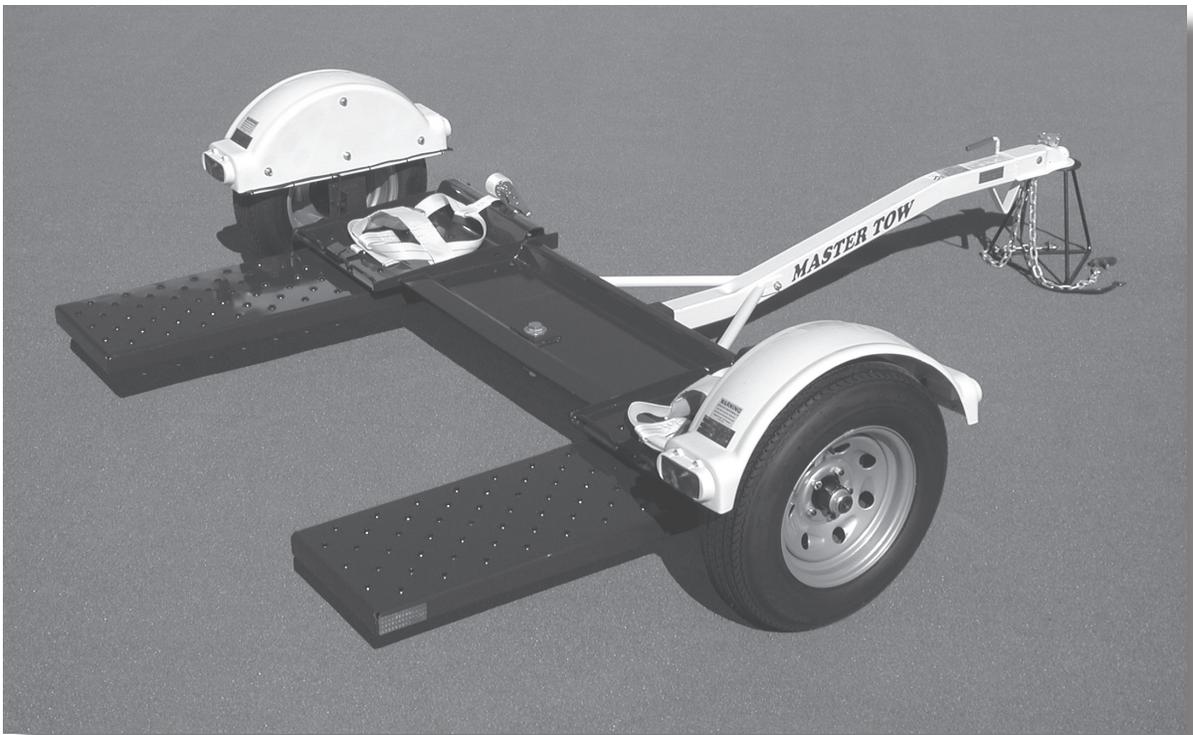
# Operations Manual & Warranty Registration

# **MASTER TOW**

783 Slocomb Road • Fayetteville, NC 28311

BY MASTER TOW, INC.

## Tilt-Bed Tow Dolly



### **IMPORTANT**

Owner or operator must read operations manual fully before operating tow dolly. For warranty registration, complete and return tow dolly warranty (inside back cover) to Master Tow, Inc. within 30 days of purchase. Additional operations manuals are available free of charge by calling Master Tow at 1-800-522-2190.

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# Thank You!

## For choosing **MASTER TOW**

**—IMPORTANT—**  
OWNER PLEASE READ ALL  
INSTRUCTIONS CAREFULLY BEFORE USE

### PRE-TRIP CHECKLIST

**—IMPORTANT—**  
OWNER PLEASE READ ALL  
INSTRUCTIONS CAREFULLY BEFORE USE

We at Master Tow strive for quality in the manufacturing of all our products, however we are not immune from an occasional oversight. To insure your towing safety it is necessary to perform a quick vehicle inspection before initial use, following the check list below. **Due to the harsh environment that tow dollies operate in, it is IMPORTANT that this pre-trip inspection be performed BEFORE each subsequent use.**

- 1. Check that all lug nuts are securely tightened and tighten if necessary. (Manufacturers recommended tightness - 90 ft. lbs. torque). Re-torque lug nuts every 50 miles for the first 200 miles of use.
- 2. Check that hub and bearings are properly adjusted and lubricated. (See wheel bearing maintenance procedure on page 3 of manual). **NOTE: It is normal for some grease to seep out of the rear hub grease seals and sling onto inside of wheels on the first few uses or after re-greasing the hub and bearings. This is because the hubs are full of grease and as the hub warms during use the grease and air inside the hub expand pushing the grease out around the rear seals. This will stop after the pressure equalizes in the hub. Clean the insides of the wheels with solvent and monitor on future uses to see if any further grease escapes.**
- 3. Check for proper tire pressure and inflate if necessary. (Recommended pressure is 50 psi). **IMPORTANT: Since tow dollies are not built with a suspension, they are intended to be towed loaded so that the vehicle-in-tow's suspension will absorb the road shock and vibration encountered by the tow dolly. If you find it necessary to tow your dolly unloaded it is recommended that the tire air pressure be reduced to around 10 P.S.I. to reduce tow dolly bounce and vibration. Failure to do so will result in light bulb filament failure and premature metal fatigue in tilt cuff, fender and ramp areas. Continuation of this use will result in cracking and eventually failure in these areas.**

	<b>TIRE AND LOADING INFORMATION</b>	
SEATING CAPACITY: <b>NOT FOR HUMAN TRANSPORTATION</b>		
ORIGINAL TIRE SIZE	COLD TIRE INFLATION PRESSURE	
ST205/75D14 LRC	All Axles	50PSI, 345kPa
OPTIONAL TIRE SIZE	COLD TIRE INFLATION PRESSURE	
ST205/75R14 LRC	All Axles	50PSI, 345kPa

**Maximum gross weight of vehicle to be towed (including contents) should not exceed the weights stated below for each model:**

**77T = 4,500 lbs.**

**80THD = 4,900 lbs.**

- 4. Check that nuts securing fenders are tight.
- 5. Check that nuts and bolts securing tongue and tongue support bars are properly tightened. (Proper tightness of support bar nuts and bolts are achieved when loading ramps stay in upright position when tilt pin is removed). Tighten the front nut and bolt going through the tongue securing support bars at the front, and the nut and bolt at the rear of each bar attaching it to the axle as necessary. **If these bolts are not kept tight a swaying condition during tow will result.** To lower loading ramps simply step onto the rear of one of the ramps and both will lower to the ground.
- 6. Check that the carrying pan swivel bolt is adjusted properly. Proper carrying pan bolt and nut tightness is achieved when the carrying pan can be swiveled by hand with moderate resistance. **Ensure that the large nut on the underside center of axle has the bolt AT LEAST flush with the bottom of the nut otherwise nut may come off causing accident or injury.** (This is a nylon insert lock nut which allows adjustment of the carrying pan swivel tightness.)
- 7. Check and adjust coupler tightness as shown on next page.

## COUPLER ADJUSTMENT

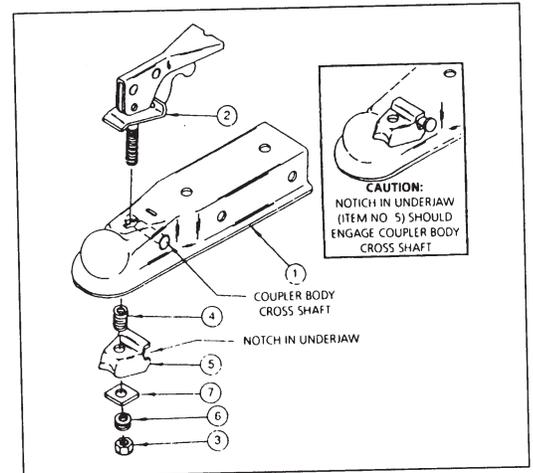
### —IMPORTANT—

OWNER PLEASE READ ALL  
INSTRUCTIONS CAREFULLY BEFORE USE

IT IS THE CUSTOMER'S RESPONSIBILITY TO ADJUST COUPLER LOCKING PRESSURE ON BALL BEFORE USE. PLACE HANDLE IN LOCKED POSITION WITH BALL IN COUPLER. TIGHTEN LOCKNUT AGAINST TENSION SPRING SO THAT COUPLER IS NOT LOOSE ON BALL. CORRECT ADJUSTMENT WILL ALLOW HANDLE TO BE RELEASED WITH MODERATE PRESSURE APPLIED TO RELEASE LATCH.

1. USE ONLY 2" SIZE BALL AS INDICATED BY STAMP ON COUPLER. DO NOT EXCEED WEIGHT CAPACITY OF BALL OR LOAD LIMITATIONS STAMPED ON COUPLER.
2. AFTER TOWING FOR 50 MILES, CHECK COUPLER FOR TIGHTNESS ON BALL. ALWAYS CHECK TIGHTNESS BEFORE TOWING. BE SURE LATCH HANDLE IS IN LOCKED POSITION.
3. ALWAYS USE APPROVED SAFETY CHAINS AND HAVE THEM ATTACHED SECURELY.
4. THE COUPLER IS SUSCEPTIBLE TO PHYSICAL DAMAGE WHEN TRAILER IS UNHOOKED. PROP TRAILER TONGUE UP BETWEEN USES. CAREFULLY INSPECT COUPLER FOR DAMAGE AND PROPER ADJUSTMENT BEFORE EACH HOOKUP
5. **CAUTION:** DO NOT MODIFY COUPLER BY DRILLING OR CUTTING.
6. **CAUTION:** ALWAYS NOTE PROPER INSTALLATION OF UNDERJAW. NOTCH IN UNDERJAW SHOULD ENGAGE COUPLER BODY CROSS SHAFT AT ALL TIMES. FAILURE TO DO SO COULD RESULT IN COUPLER FAILURE.

COUPLER DIAGRAM SHOWN MAY VARY FROM THAT USED ON YOUR DOLLY; HOWEVER, TIGHTENING SEQUENCES STILL APPLY.



### OPERATIONAL DO'S AND DON'TS

- Master Tow Tow Dollies were not designed for use in commercial applications. **Commercial use will void warranty.**
- Always make wide radius turns when towing a loaded tow dolly. (Avoid sharp turns and U-turns. Turning too sharply may cause the vehicle-in-tow to come into contact with the tow dolly fender causing damage to both vehicles. Oversteering can cause warping of carrying pan, bending of tongue and the possibility of the carrying pan jumping over the limit stops. Master Tow is not responsible for any damages to towed vehicle resulting from the use or misuse of dolly.
- Never attempt to back up a loaded tow dolly. This can overstress the tow dolly bending the tongue and or carrying pan. Towed vehicle damage may also occur from oversteering.
- Always check and adjust coupler tightness. It is the owner or operators responsibility to adjust the coupler locking pressure on ball before each use and to insure coupler lever locking pin is installed prior to towing, loading or operating dolly.
- Always check wheel lugs and carrying pan pivot bolt and nut for tightness before each trip. (See Pre-Trip Check List)
- Always check the tire pressure on the tow vehicle, tow dolly and vehicle-in-tow before towing. (Inflate tow dolly tires to max. of 50 psi.) Reduce to 10 psi when towing the dolly empty.
- Always hitch the tow dolly to the tow vehicle before loading the vehicle-in-tow.
- Always load the vehicle-in-tow facing forward. (Making sure steering wheel is immobilized by locking ignition switch or tying off steering wheel to seat frame or suitable point.) Towing a rearward facing vehicle may cause swaying with the towed combination.
- For rear wheel drive vehicles, consult the vehicle manufacturer to determine if the drive shaft should be disconnected prior to towing to prevent damage to the transmission. If drive shaft is to be removed, insure that the vehicle is on level ground and take proper precautions to prevent vehicle from rolling while work is performed. Never rely on the parking brake alone to hold vehicle from rolling. Always block the tires, Failure to do so could result in injury or death. Secure all disconnected parts.
- Never transport any passengers or heavy cargo inside the vehicle-in-tow.

## WHEEL BEARING MAINTENANCE

### IMPORTANT

It is the sole responsibility of the owner or operator to insure bearings are adjusted properly before each use. Before each use check wheel bearing tightness as follows:  
(Failure to maintain proper bearing adjustment will void hub & bearing warranty.)

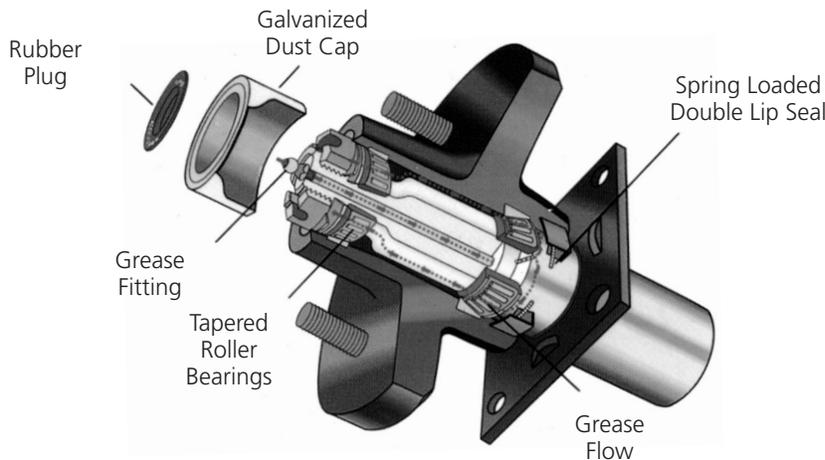
1. With no vehicle on tow dolly, push in and pull out on the top of tow dolly tire from the side.
2. If any movement is felt bearings need adjustment.
3. Have bearings adjusted by a qualified mechanic.

To maintain warranty on bearings it is the owner or operator's responsibility to maintain wheel bearings no less than every 3,000 miles.

## WHEEL BEARING MAINTENANCE PROCEDURE

LUBRICATION: A SIMPLE THREE STEP PROCESS

1. Remove rubber plug.
2. Insert grease gun into grease fitting. Pump grease until old grease comes back out the front.
3. Remove old grease and reinstall rubber plug.



**RECOMMENDED GREASE TYPE**  
High temperature, lithium based-EP2 wheel bearing grease.

## TOW DOLLY HOOKUP

1. Insure that the hitch and hitch ball are securely attached to the tow vehicle and that they both have a minimum rating of 5000 lbs.

### IMPORTANT

Hitch ball must be 2" in diameter. Never attempt to pull the tow dolly with an under or oversized hitch ball.

2. It is important that your hitch ball height be between 18 and 20 inches from the ground to the top of the ball. This will insure proper ramp to ground and ramp to under car clearance. For longer motor homes where rear frame dragging is common, a hitch height of 20" to 24" may be required to maintain ramp to under car clearance.
3. Release and pull the coupler locking handle on the tow dolly coupler to the upright position. Hook the tow dolly coupler onto the hitch ball insuring that the coupler socket fully encloses around the hitch ball. Lock the coupler onto the ball by folding the coupler locking handle down until the spring loaded catch locks in place and insert coupler lever locking pin. Pull up on the tow dolly tongue to insure that coupler is locked and visually insure coupler lever locking pin is installed and secured with retaining clip prior to towing, loading or operating dolly.
4. Insure coupler is adjusted properly. (See page 2 of manual)
5. Connect the safety chains to the tow vehicle frame by crossing them under the tow dolly tongue. If chains cannot be attached to the tow vehicle frame, hook the chains to the bumper or other secure attachment point on the tow vehicle. Safety chains need very little slack for turning. Insure that the chains are secure and will not be dragging the ground. Twist chains to shorten them if they are dragging and reattach to tow vehicle.
6. Plug the lights from the tow dolly in to an appropriately wired light socket on the tow vehicle. Insure that all lights are functioning properly. Tow dolly hook up is now complete.

## VEHICLE-IN-TOW

**Maximum gross weight of vehicle to be towed (including contents) should not exceed the weights stated for each model:**

**77T = 4,500 lbs.**

**80THD = 4,900 lbs.**

Note: It is the owners responsibility to insure that the vehicle-in-tow is not too wide for the tow dolly being used. Prior to towing it is recommended that a practice tow be performed where an assistant can watch while turns are made to insure tow dolly fender to vehicle-in-tow door clearance. Tow dollies are designed to tow front wheel drive and rear wheel drive automobiles only. No other type of vehicle should ever be towed with a dolly. No modifications to the tow dolly for this purpose should ever be made.

### **MASTER TOW IS NOT RESPONSIBLE OR LIABLE FOR ANY DAMAGE TO VEHICLE-IN-TOW OCCURRING WHILE TOWING ON TOW DOLLY.**

MODEL #77T—When towing with this model dolly the vehicle-in-tow must not be wider than 75" at the doors or running boards to prevent them from coming into contact with the tow dolly fenders during turns.

MODEL #80THD—When towing with this model dolly the vehicle-in-tow must not be wider than 78" at the doors or running boards to prevent them from coming into contact with the tow dolly fenders during turns.

*NOTE: Dimensions above are to be used as a guideline and do not guarantee clearance.*

## LOADING

1. Park the tow vehicle with the properly hitched tow dolly in line on level ground. Place the gear shift lever in low gear (manual transmission) or in park with the motor off and the parking brake set. CAUTION: Keep children and bystanders clear of the loading area (at least 10 feet from any part of the tow dolly)
2. Drive the vehicle-in-tow up to the rear of the tow dolly and stop the tires five feet from the rear edge of the carrying pan.
3. Remove the tilt locking pin from the tilt cuff located on the underside of the dolly tongue just to the front of the carrying pan. Step on one of the carrying pan ramps to tilt them rearward until the rear edge of the ramps touch the pavement.
4. If loading vehicle-in-tow with optional winch kit, make sure brakes on vehicle-in-tow are fully functional and always have someone inside vehicle-in-tow to apply brakes when needed. Inspect cable or strap on winch for fraying or any signs of damage and replace before using if detected. Never exceed limitations stamped on side of winch.
5. Never allow anyone to push vehicle-in-tow onto dolly with another vehicle.
6. Place the tilt pin in an area away from any moving part of the tilt mechanism.
7. Drive the vehicle-in-tow up to the end of the ramps, but not on the ramps. Make sure the vehicle-in-tow



is centered in line between the tow dolly fenders and that the front wheels are pointed straight ahead. Insure that any spoiler or air dam will clear the ramps and rear edge of carrying pan. **IMPORTANT: In some cases it maybe necessary to lay 1 or 2, (1 1/2" thick) boards flat on the ground starting under the ramp and continuing rearward toward the vehicle in tow. This will cause the tires on the vehicle in tow to ride up onto the boards first, then onto the ramps and will lower the approach angle to clear low spoilers or long front ends.**

8. Close the doors of the vehicle-in-tow and drive forward slowly up the ramps and onto the tow dolly until the tires meet the tire stops on the front of the carrying pan.
9. Place the gear shift lever in low gear (manual transmission) or in park, and apply the emergency brake. Place the ignition switch in the steering wheel to the locked position and make sure that the front wheels are pointing straight ahead. Assure that steering wheel is locked and will not turn. (Parking brake is to be released after tie down procedure is completed.)

9. On vehicles not equipped with a steering wheel lock mechanism is imperative that the steering wheel be immobilized by tying it to the seat frame or other suitable point with a ratchet strap or other device.
10. Reinsert the tilt locking pin through the tilt cuff making sure that the safety retaining pin is inserted through the hole in the end of the locking pin.

## TIE DOWN PROCEDURE

1. First, select the correct size tiedown straps for the towing application. There are three types of tiedown straps available from Master Tow:

**NOTE: It is the owner or operators responsibility to insure that the appropriate size strap is used to secure the vehicle-in-tow to the tow dolly and that it is properly installed on the tire.**

**MASTER TOW IS NOT RESPONSIBLE OR LIABLE FOR ANY DAMAGE ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THE PRODUCT.**

- (1) Buckle Adjustable (Standard equipment on 77T and 80T models).

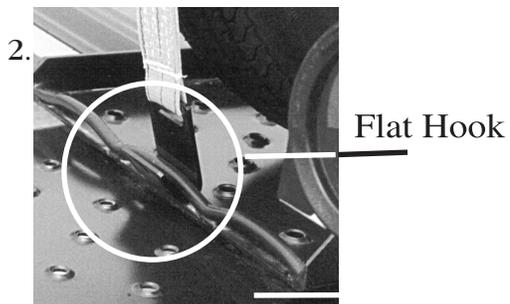
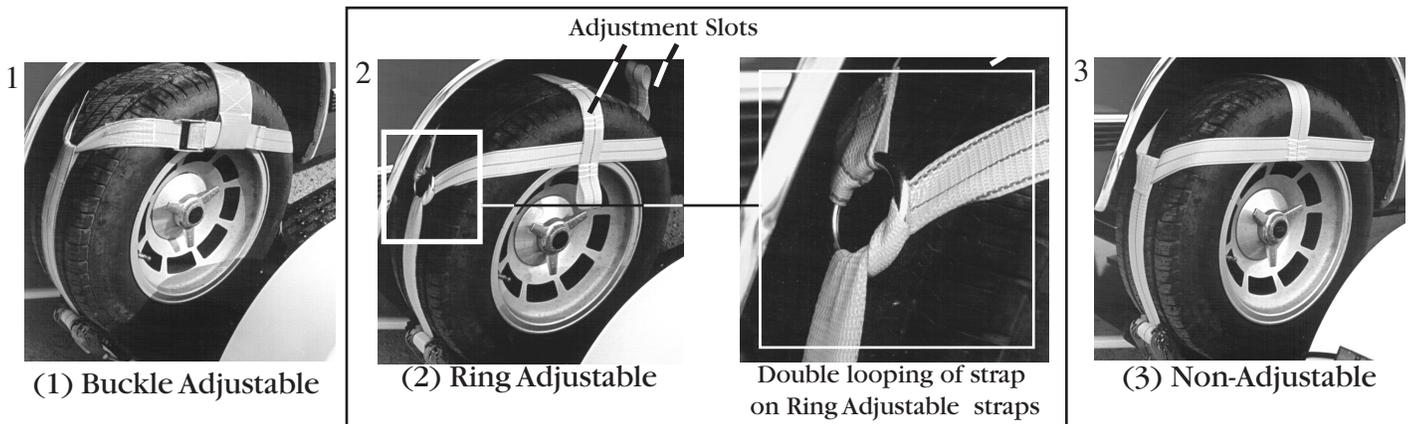
This strap adjusts to fit most popular sized wheel and tire combinations 13" through 16"

- (2) Ring Adjustable (Standard equipment on 80THD only). This strap is available to fit a broader range of wheel and tire sizes and can be used on all models. This strap adjusts to fit most popular sized wheel and tire combinations 13" through 18"

- (3) Non-Adjustable Straps (Available as an option).

Size 13-14      This size strap fits all popular sized 13" and 14" wheel and tire combinations.

Size 15-16      This size strap fits all popular sized 15" and 16" wheel and tire combinations.



Insert the flat hook of an appropriate sized tiedown strap into one of the flat hook catch slots located on the left rear side of the tow dolly carrying pan. Insure that the hook is in the slot closest to the center of the tire. If tire is centered between slots always insert hook in slot toward the inside of tire and do the same for strap on other side, so that straps on each side will be pulling toward each other.

3. Pull the tiedown strap over the tire making sure there are no twists in the net.
4. Feel around inside of tire to insure strap clears any metal objects which will fray or cut strap and adjust if necessary. **(Cutting or fraying of straps from abrasion is not covered under warranty).**

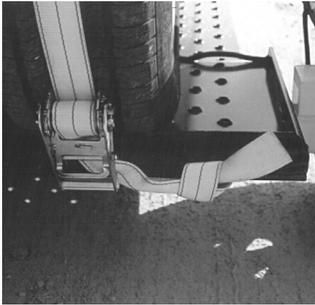
5. With adjustable straps, make sure adjustment buckle is on outside of tire and pull any slack through buckle to insure that strap going around tire is straight across tire. Tuck any excess strap into loop of top cross over strap.



6. Open the ratchet, located on the left front side of the carrying pan, half-way and feed the free end of the tiedown strap through the slot in the center of the ratchet. **IMPORTANT** (Pull all of the slack through the ratchet slot before beginning to tighten strap. If this is not done a big spool of strap will be on the ratchet and will allow strap to loosen prematurely.)
7. To tighten the tiedown strap, push and pull the ratchet handle back and forth until the strap is completely tight.

**NOTE:**The tiedown strap cannot be over tightened. Ratchet the tiedown strap as tight as possible.

8.  When the tiedown strap is completely tight, lock the ratchet by folding the handle down until the ratchet is completely closed. Pull handle to make sure ratchet is locked closed. This will prevent loosening of the tiedown strap during tow.

9.  After locking ratchet there may be quite a bit of extra strap left hanging. Take the strap and tie it off to the round bar which the ratchet is attached to prevent it from dragging the ground.

10. Repeat steps 2 through 9 for the right side tire.  
Note: On dollies without the optional security chains installed skip step 11.
11. If so equipped: Attach the two security chains to the towed vehicle frame, engine mount or tie down hook. These chains are located toward the center on the front side of the carrying pan. Do not pull these chains tight, they must be left slack.
12. For rear wheel drive vehicles, consult the vehicle manufacturer to determine if the drive shaft should be disconnected prior to towing to prevent damage to the transmission. If drive shaft is to be removed, insure that the vehicle is on level ground and take proper precautions to prevent vehicle from rolling while work is performed. Never rely on the parking brake alone to hold vehicle from rolling. Always block the tires. Failure to do so could result in injury or death.. Secure all disconnected parts.
13. When loading and tiedown is complete, take a test drive making slow left and right hand turns. Stop and recheck the tiedown straps, retightening them as tight as possible. Vehicle-in-tow tie down is now complete.

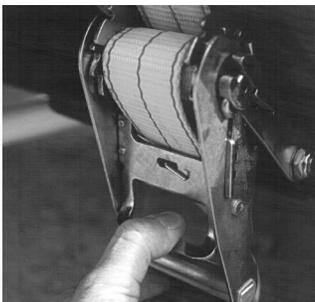
**IMPORTANT**  
Before test driving, make sure parking brake is released.

## TOWING

1. Make sure that the pre-trip checklist has been performed prior to towing (see Page 1, PRE-TRIP CHECKLIST.)
2. Make sure that tow dolly wheel lug nuts are securely tightened (see page 1, PRE-TRIP CHECKLIST #1) and re-torque lug nuts every 50 miles for the first 200 miles of use.
3. Stop and check the tiedown straps for tightness and re-adjust if necessary after the first 10 miles and at least every 100 miles thereafter.
4. When towing a loaded tow dolly always anticipate stops and brake early. Allow at least two car lengths between you and the vehicle ahead for every 10 M.P.H.
5. During tow, always remember that the tow dolly is wider than a car, truck or R.V.. Drive carefully in the center of the lane. If a wheel drops off the road edge, remain off the pavement, decrease speed until both vehicles have stabilized then slowly but firmly turn back onto the pavement.
6. When towing the loaded tow dolly avoid sharp turns and u-turns. Turning too sharply may cause the vehicle-in-tow to come into contact with the tow dolly fender causing damage to both vehicles. Sharp turns can also cause the carrying pan to bend upwards on the sides and possibly jump the limit stops.
7. Any swaying during tow, other than minimal swaying due to road conditions, may be a result of an improper load condition. To reduce the swaying take your foot off the gas pedal. Never increase speed. Steer straight ahead and brake gently after the swaying diminishes. Check the load making sure the vehicle-in-tow is loaded facing forward and that the tiedown straps are completely tight. Retighten and or reload if necessary. If tow dolly is loaded properly, check that the tongue and tongue support bar attaching bolts and nuts are properly tightened (see page 1, PRE-TRIP CHECKLIST #5) and check the tires on all vehicles for possible low tire pressure.

## UNLOADING

1. Park the combination on level ground in a straight line with the tow vehicle in park or low gear (manual transmission), motor off, and parking brake set.
2. Apply the vehicle-in-tow parking brake.
3. Connect the driveshaft if previously disconnected. While work is performed insure that the vehicle is on level ground and take proper precautions to prevent vehicle from rolling while work is performed, Never rely on parking brake alone to hold vehicle from rolling. Always block the tires. Failure to do so could result in injury or death.
4. Remove the security chains from the vehicle-in-tow. (If so equipped)  
CAUTION: Keep children and bystanders clear of the unloading area (at least 10 feet from any part of the tow dolly)
5. Release the ratchet and remove the tiedown strap from the left tire.
6. To release ratchet tightness, pull down lever on ratchet handle (a) and open ratchet fully until tightness is released (b). Grab excess strap and give a hard jerk (c). This will spin mandrel so strap can be removed.



Opening  
(figure a)



Opened  
(figure b)



Grab excess strap and  
jerk hard to spin mandrel  
and unspool strap.  
( figure c)

7. Some low spoilers may prevent ratchet from opening completely. In this case open ratchet as much as possible, while holding lever on handle back insert a screwdriver into hole just below and behind spool of strap and pry down. (a) This will release strap tension enough to open ratchet fully. (b) Grab excess strap and jerk hard to spin mandrel and unspool strap. (c) This will spin mandrel so strap can be removed.



(figure a)

Insert screwdriver into hole just below and behind spool of strap and pry down (see figure a & b)



(figure b)

Grab excess strap and jerk hard to spin mandrel and unspool strap.



(figure c)

8. Remove the tiedown strap.
9. Repeat steps 6 through 8 for the right side tire.
10. Remove the tilt locking pin from the tilt cuff and place it in an area away from any moving part of the tilt mechanism.
11. Insure that the vehicle-in-tow's front tires are pointing straight ahead. Release the parking brake and slowly back the vehicle-in-tow off the tow dolly. **IMPORTANT: If boards were used to keep low spoilers from dragging while loading place them under ramps before backing off tow dolly.**
12. Manually lower the tilt cuff and reinstall the tilt locking pin making sure that the clip pin is inserted through the hole in the end of the locking pin and that the clip is folded over to the locked position. (See diagram at bottom of pg. 4)
13. Crisscross the security chains and hook them back into themselves. This will prevent the chains from bouncing around when towing the unloaded tow dolly. (If so equipped.)

## NOTIFICATION OF SAFETY DEFECTS

If you believe that your vehicle has a defect that could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Master Tow.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Master Tow.

To contact NHTSA, you may either call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153), go to <http://www.safercar.gov>; or write to:

Administrator  
NHTSA  
1200 New Jersey Avenue S.E.  
Washington, DC 20590

You can also obtain other information about motor vehicle safety from <http://www.safercar.gov>.

## Tire Safety Information

### 1. TIRE SAFETY INFORMATION

This portion of the User's Manual contains the tire safety information as required by 49 CFR 575.6.

Section 2.1 contains "Steps for Determining Correct Load Limit – Trailer".

Section 2.2 contains "Steps for Determining Correct Load Limit – Tow Vehicle".

Section 2.3 contains a Glossary of Tire Terminology, including "cold inflation pressure", "maximum inflation pressure", "recommended inflation pressure", and other non-technical terms.

Section 2.4 contains information from the NHTSA brochure entitled "Tire Safety – Everything Rides On It".

This brochure, as well as the preceding subsections, describes the following items;

- Tire labeling, including a description and explanation of each marking on the tires, and information about the DOT Tire Identification Number (TIN).
- Recommended tire inflation pressure, including a description and explanation of:
  - A. Cold inflation pressure.
  - B. Vehicle placard and location on the vehicle.
  - C. Adverse safety consequences of under inflation (including tire failure).
  - D. Measuring and adjusting air pressure for proper inflation.
- Tire Care, including maintenance and safety practices.
- Vehicle load limits, including a description and explanation of the following items:
  - A. Locating and understanding the load limit information, total load capacity, and cargo capacity.
  - B. Calculating total and cargo capacities with varying seating configurations including quantitative examples showing / illustrating how the vehicles cargo and luggage capacity decreases as combined number and size of occupants' increases. This item is also discussed in Section 3.
  - C. Determining compatibility of tire and vehicle load capabilities.
  - D. Adverse safety consequences of overloading on handling and stopping on tires.

#### 1.1. STEPS FOR DETERMINING CORRECT LOAD LIMIT – TRAILER

Determining the load limits of a trailer includes more than understanding the load limits of the tires alone. On all trailers there is a Federal certification/VIN label that is located on the forward half of the left (road) side of the unit. This certification/VIN label will indicate the trailer's Gross Vehicle Weight Rating (GVWR). This is the most weight the fully loaded trailer can weigh. It will also provide the Gross Axle Weight Rating (GAWR). This is the most a particular axle can weigh. If there are multiple axles, the GAWR of each axle will be provided.

If your trailer has a GVWR of 10,000 pounds or less, there is a vehicle placard located in the same location as the certification label described above. This placard provides tire and loading information. In addition, this placard will show a statement regarding maximum cargo capacity. Cargo can be added to the trailer, up to the maximum weight specified on the placard. The combined weight of the cargo is provided as a single number. In any case, remember: the total weight of a fully loaded trailer can not exceed the stated GVWR.

For trailers with living quarters installed, the weight of water and propane also need to be considered. The weight of fully filled propane containers is considered part of the weight of the trailer before it is loaded with cargo, and is not considered part of the disposable cargo load. Water, however, is a disposable cargo weight and is treated as such. If there is a fresh water storage tank of 100 gallons, this tank when filled would weigh about 800 pounds. If more cargo is being transported, water can be off-loaded to keep the total amount of cargo added to the vehicle within the limits of the GVWR so as not to overload the vehicle. Understanding this flexibility will allow you, the owner, to make choices that fit your travel needs.

When loading your cargo, be sure it is distributed evenly to prevent overloading front to back and side to side. Heavy items should be placed low and as close to the axle positions as reasonable. Too many items on one side may overload a tire. The best way to know the actual weight of the vehicle is to weigh it at a public scale. Talk to your dealer to discuss the weighing methods needed to capture the various weights related to the trailer. This would include the weight empty or unloaded, weights per axle, wheel, hitch or king-pin, and total weight.

Excessive loads and/or underinflation cause tire overloading and, as a result, abnormal tire flexing occurs. This situation can generate an excessive amount of heat within the tire. Excessive heat may lead to tire failure. It is the air pressure that enables a tire to support the load, so proper inflation is critical. The proper air pressure may be found on the certification/VIN label and/or on the Tire Placard. This value should never exceed the maximum cold inflation pressure stamped on the tire.

#### 1.1.1. TRAILERS 10,000 POUNDS, GVWR OR LESS

TIRE AND LOADING INFORMATION			
The weight of cargo should never exceed 507 kg, or 2000 lbs.			
TIRE	SIZE	COLD TIRE PRESSURE	SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION
FRONT	20.5R16-10E	62/119A or 90PSI	
REAR			
SPARE			

Tire and Loading Information Placard – Figure 1-1

1. Locate the statement, "The weight of cargo should never exceed XXX kg or XXX lbs." on your vehicle's placard. See figure 1-1.
2. This figure equals the available amount of cargo and luggage load capacity.
3. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity.

The trailer's placard refers to the Tire Information Placard attached adjacent to or near the trailer's VIN (Certification) label at the left front of the trailer.

#### 1.1.2. TRAILERS OVER 10,000 POUNDS, GVWR (NOTE: THESE TRAILERS ARE NOT REQUIRED TO HAVE A TIRE INFORMATION PLACARD ON THE VEHICLE)

1. Determine the empty weight of your trailer by weighing the trailer using a public scale or other means. This step does not have to be repeated.
2. Locate the GVWR (Gross Vehicle Weight Rating) of the trailer on your trailer's VIN (Certification) label.
3. Subtract the empty weight of your trailer from the GVWR stated on the VIN label. That weight is the maximum available cargo capacity of the trailer and may not be safely exceeded.

#### 1.2. STEPS FOR DETERMINING CORRECT LOAD LIMIT – TOW VEHICLE

1. Locate the statement, "The combined weight of occupants and cargo should never exceed XXX lbs.," on your vehicle's placard.
2. Determine the combined weight of the driver and passengers who will be riding in your vehicle.
3. Subtract the combined weight of the driver and passengers from XXX kilograms or XXX pounds.
4. The resulting figure equals the available amount of cargo and luggage capacity. For example, if the "XXX" amount equals 1400 lbs. and there will be five 150 lb. passengers in your vehicle, the amount of available cargo and luggage capacity is 650 lbs. (1400-750 (5 x 150) = 650 lbs.).
5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage capacity calculated in Step # 4.
6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult the tow vehicle's manual to determine how this weight transfer reduces the available cargo and luggage capacity of your vehicle.

#### 1.3. GLOSSARY OF TIRE TERMINOLOGY

##### Accessory weight

The combined weight (in excess of those standard items which may be replaced) of automatic transmission, power steering, power brakes, power windows, power seats, radio and heater, to the extent that these items are available as factory-installed equipment (whether installed or not).

<p><b>Bead</b> The part of the tire that is made of steel wires, wrapped or reinforced by ply cords and that is shaped to fit the rim.</p> <p><b>Bead separation</b> This is the breakdown of the bond between components in the bead.</p> <p><b>Bias ply tire</b> A pneumatic tire in which the ply cords that extend to the beads are laid at alternate angles substantially less than 90 degrees to the centerline of the tread.</p> <p><b>Carcass</b> The tire structure, except tread and sidewall rubber which, when inflated, bears the load.</p> <p><b>Chunking</b> The breaking away of pieces of the tread or sidewall.</p> <p><b>Cold inflation pressure</b> The pressure in the tire before you drive.</p> <p><b>Cord</b> The strands forming the plies in the tire.</p> <p><b>Cord separation</b> The parting of cords from adjacent rubber compounds.</p> <p><b>Cracking</b> Any parting within the tread, sidewall, or inner liner of the tire extending to cord material.</p> <p><b>CT</b> A pneumatic tire with an inverted flange tire and rim system in which the rim is designed with rim flanges pointed radially inward and the tire is designed to fit on the underside of the rim in a manner that encloses the rim flanges inside the air cavity of the tire.</p> <p><b>Curb weight</b> The weight of a motor vehicle with standard equipment including the maximum capacity of fuel, oil, and coolant, and, if so equipped, air conditioning and additional weight optional engine.</p> <p><b>Extra load tire</b> A tire designed to operate at higher loads and at higher inflation pressures than the corresponding standard tire.</p> <p><b>Groove</b> The space between two adjacent tread ribs.</p> <p><b>Gross Axle Weight Rating</b> The maximum weight that any axle can support, as published on the Certification / VIN label on the front left side of the trailer. Actual weight determined by weighing each axle on a public scale, with the trailer attached to the towing vehicle.</p> <p><b>Gross Vehicle Weight Rating</b> The maximum weight of the fully loaded trailer, as published on the Certification / VIN label. Actual weight determined by weighing trailer on a public scale, without being attached to the towing vehicle.</p> <p><b>Hitch Weight</b> The downward force exerted on the hitch ball by the trailer coupler.</p> <p><b>Innerliner</b> The layer(s) forming the inside surface of a tubeless tire that contains the inflating medium within the tire.</p> <p><b>Innerliner separation</b> The parting of the innerliner from cord material in the carcass.</p>	<p><b>Intended outboard sidewall</b> The sidewall that contains a white-wall, bears white lettering or bears manufacturer, brand, and/or model name molding that is higher or deeper than the same molding on the other sidewall of the tire or the outward facing sidewall of an asymmetrical tire that has a particular side that must always face outward when mounted on a vehicle.</p> <p><b>Light truck (LT) tire</b> A tire designated by its manufacturer as primarily intended for use on lightweight trucks or multipurpose passenger vehicles.</p> <p><b>Load rating</b> The maximum load that a tire is rated to carry for a given inflation pressure.</p> <p><b>Maximum load rating</b> The load rating for a tire at the maximum permissible inflation pressure for that tire.</p> <p><b>Maximum permissible inflation pressure</b> The maximum cold inflation pressure to which a tire may be inflated.</p> <p><b>Maximum loaded vehicle weight</b> The sum of curb weight, accessory weight, vehicle capacity weight, and production options weight.</p> <p><b>Measuring rim</b> The rim on which a tire is fitted for physical dimension requirements.</p> <p><b>Pin Weight</b> The downward force applied to the 5<sup>th</sup> wheel or gooseneck ball, by the trailer kingpin or gooseneck coupler.</p> <p><b>Non-pneumatic rim</b> A mechanical device which, when a non-pneumatic tire assembly incorporates a wheel, supports the tire, and attaches, either integrally or separably, to the wheel center member and upon which the tire is attached.</p> <p><b>Non-pneumatic spare tire assembly</b> A non-pneumatic tire assembly intended for temporary use in place of one of the pneumatic tires and rims that are fitted to a passenger car in compliance with the requirements of this standard.</p> <p><b>Non-pneumatic tire</b> A mechanical device which transmits, either directly or through a wheel or wheel center member, the vertical load and tractive forces from the roadway to the vehicle, generates the tractive forces that provide the directional control of the vehicle and does not rely on the containment of any gas or fluid for providing those functions.</p> <p><b>Non-pneumatic tire assembly</b> A non-pneumatic tire, alone or in combination with a wheel or wheel center member, which can be mounted on a vehicle.</p> <p><b>Normal occupant weight</b> This means 68 kilograms (150 lbs.) times the number of occupants specified in the second column of Table I of 49 CFR 571.110.</p> <p><b>Occupant distribution</b> The distribution of occupants in a vehicle as specified in the third column of Table I of 49 CFR 571.110.</p> <p><b>Open splice</b> Any parting at any junction of tread, sidewall, or innerliner that extends to cord material.</p> <p><b>Outer diameter</b> The overall diameter of an inflated new tire.</p> <p><b>Overall width</b></p>
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The linear distance between the exteriors of the sidewalls of an inflated tire, including elevations due to labeling, decorations, or protective bands or ribs.

**Ply**

A layer of rubber-coated parallel cords.

**Ply separation**

A parting of rubber compound between adjacent plies.

**Pneumatic tire**

A mechanical device made of rubber, chemicals, fabric and steel or other materials, that, when mounted on an automotive wheel, provides the traction and contains the gas or fluid that sustains the load.

**Production options weight**

The combined weight of those installed regular production options weighing over 2.3 kilograms (5 lbs.) in excess of those standard items which they replace, not previously considered in curb weight or accessory weight, including heavy duty brakes, ride levelers, roof rack, heavy duty battery, and special trim.

**Radial ply tire**

A pneumatic tire in which the ply cords that extend to the beads are laid at substantially 90 degrees to the centerline of the tread.

**Recommended inflation pressure**

This is the inflation pressure provided by the vehicle manufacturer on the Tire Information label and on the Certification / VIN tag.

**Reinforced tire**

A tire designed to operate at higher loads and at higher inflation pressures than the corresponding standard tire.

**Rim**

A metal support for a tire or a tire and tube assembly upon which the tire beads are seated.

**Rim diameter**

This means the nominal diameter of the bead seat.

**Rim size designation**

This means the rim diameter and width.

**Rim type designation**

This means the industry of manufacturer's designation for a rim by style or code.

**Rim width**

This means the nominal distance between rim flanges.

**Section width**

The linear distance between the exteriors of the sidewalls of an inflated tire, excluding elevations due to labeling, decoration, or protective bands.

**Sidewall**

That portion of a tire between the tread and bead.

**Sidewall separation**

The parting of the rubber compound from the cord material in the sidewall.

**Special Trailer (ST) tire**

The "ST" is an indication the tire is for trailer use only.

**Test rim**

The rim on which a tire is fitted for testing, and may be any rim listed as appropriate for use with that tire.

**Tread**

That portion of a tire that comes into contact with the road.

**Tread rib**

A tread section running circumferentially around a tire.

**Tread separation**

Pulling away of the tread from the tire carcass.

**Treadwear indicators (TWI)**

The projections within the principal grooves designed to give a visual indication of the degrees of wear of the tread.

**Vehicle capacity weight**

The rated cargo and luggage load plus 68 kilograms (150 lbs.) times the vehicle's designated seating capacity.

**Vehicle maximum load on the tire**

The load on an individual tire that is determined by distributing to each axle its share of the maximum loaded vehicle weight and dividing by two.

**Vehicle normal load on the tire**

The load on an individual tire that is determined by distributing to each axle its share of the curb weight, accessory weight, and normal occupant weight (distributed in accordance with Table 1 of CFR 49 571.110) and dividing by 2.

**Weather side**

The surface area of the rim not covered by the inflated tire.

**Wheel center member**

In the case of a non-pneumatic tire assembly incorporating a wheel, a mechanical device which attaches, either integrally or separably, to the non-pneumatic rim and provides the connection between the non-pneumatic rim and the vehicle; or, in the case of a non-pneumatic tire assembly not incorporating a wheel, a mechanical device which attaches, either integrally or separably, to the non-pneumatic tire and provides the connection between tire and the vehicle.

**Wheel-holding fixture**

The fixture used to hold the wheel and tire assembly securely during testing.

**1.4. TIRE SAFETY - EVERYTHING RIDES ON IT**

The National Traffic Safety Administration (NHTSA) has published a brochure (DOT HS 809 361) that discusses all aspects of Tire Safety, as required by CFR 575.6. This brochure is reproduced in part below. It can be obtained and downloaded from NHTSA, free of charge, from the following web site:

[http://www.nhtsa.dot.gov/cars/rules/TireSafety/tiresontit/tires\\_index.html](http://www.nhtsa.dot.gov/cars/rules/TireSafety/tiresontit/tires_index.html)

Studies of tire safety show that maintaining proper tire pressure, observing tire and vehicle load limits (not carrying more weight in your vehicle than your tires or vehicle can safely handle), avoiding road hazards, and inspecting tires for cuts, slashes, and other irregularities are the most important things you can do to avoid tire failure, such as tread separation or blowout and flat tires. These actions, along with other care and maintenance activities, can also:

- Improve vehicle handling
- Help protect you and others from avoidable breakdowns and accidents
- Improve fuel economy
- Increase the life of your tires.

This booklet presents a comprehensive overview of tire safety, including information on the following topics:

- Basic tire maintenance
- Uniform Tire Quality Grading System
- Fundamental characteristics of tires

- Tire safety tips.

Use this information to make tire safety a regular part of your vehicle maintenance routine. Recognize that the time you spend is minimal compared with the inconvenience and safety consequences of a flat tire or other tire failure.

### **1.5. SAFETY FIRST—BASIC TIRE MAINTENANCE**

Properly maintained tires improve the steering, stopping, traction, and load-carrying capability of your vehicle. Underinflated tires and overloaded vehicles are a major cause of tire failure. Therefore, as mentioned above, to avoid flat tires and other types of tire failure, you should maintain proper tire pressure, observe tire and vehicle load limits, avoid road hazards, and regularly inspect your tires.

#### **1.5.1. FINDING YOUR VEHICLE'S RECOMMENDED TIRE PRESSURE AND LOAD LIMITS**

Tire information placards and vehicle certification labels contain information on tires and load limits. These labels indicate the vehicle manufacturer's information including:

- Recommended tire size
- Recommended tire inflation pressure
- Vehicle capacity weight (VOW)—the maximum occupant and cargo weight a vehicle is designed to carry)
- Front and rear gross axle weight ratings (GAWR)—the maximum weight the axle systems are designed to carry).

Both placards and certification labels are permanently attached to the trailer near the left front.

#### **1.5.2. UNDERSTANDING TIRE PRESSURE AND LOAD LIMITS**

Tire inflation pressure is the level of air in the tire that provides it with load-carrying capacity and affects the overall performance of the vehicle. The tire inflation pressure is a number that indicates the amount of air pressure—measured in pounds per square inch (psi)—a tire requires to be properly inflated. (You will also find this number on the vehicle information placard expressed in kilopascals (kpa), which is the metric measure used internationally.)

Manufacturers of passenger vehicles and light trucks determine this number based on the vehicle's design load limit, that is, the greatest amount of weight a vehicle can safely carry and the vehicle's tire size. The proper tire pressure for your vehicle is referred to as the "recommended cold inflation pressure." (As you will read below, it is difficult to obtain the recommended tire pressure if your tires are not cold.) Because tires are designed to be used on more than one type of vehicle, tire manufacturers list the "maximum permissible inflation pressure" on the tire sidewall. This number is the greatest amount of air pressure that should ever be put in the tire under normal driving conditions.

#### **1.5.3. CHECKING TIRE PRESSURE**

It is important to check your vehicle's tire pressure at least once a month for the following reasons:

- Most tires may naturally lose air over time.
- Tires can lose air suddenly if you drive over a pothole or other object or if you strike the curb when parking.
- With radial tires, it is usually not possible to determine underinflation by visual inspection.

For convenience, purchase a tire pressure gauge to keep in your vehicle. Gauges can be purchased at tire dealerships, auto supply stores, and other retail outlets. The recommended tire inflation pressure that vehicle manufacturers provide reflects the proper psi when a tire is cold. The term cold does not relate to the outside temperature. Rather, a cold tire is one that has not been driven on for at least three hours. When you drive, your tires get warmer, causing the air pressure within them to increase. Therefore, to get an accurate tire pressure reading, you must measure tire pressure when the tires are cold or compensate for the extra pressure in warm tires.

### **1.5.4. STEPS FOR MAINTAINING PROPER TIRE PRESSURE**

- Step 1: Locate the recommended tire pressure on the vehicle's tire information placard, certification label, or in the owner's manual.
- Step 2: Record the tire pressure of all tires.
- Step 3: If the tire pressure is too high in any of the tires, slowly release air by gently pressing on the tire valve stem with the edge of your tire gauge until you get to the correct pressure.
- Step 4: If the tire pressure is too low, note the difference between the measured tire pressure and the correct tire pressure. These "missing" pounds of pressure are what you will need to add.
- Step 5: At a service station, add the missing pounds of air pressure to each tire that is underinflated.
- Step 6: Check all the tires to make sure they have the same air pressure (except in cases in which the front and rear tires are supposed to have different amounts of pressure).

If you have been driving your vehicle and think that a tire is underinflated, fill it to the recommended cold inflation pressure indicated on your vehicle's tire information placard or certification label. While your tire may still be slightly underinflated due to the extra pounds of pressure in the warm tire, it is safer to drive with air pressure that is slightly lower than the vehicle manufacturer's recommended cold inflation pressure than to drive with a significantly underinflated tire. Since this is a temporary fix, don't forget to recheck and adjust the tire's pressure when you can obtain a cold reading.

#### **1.5.5. TIRE SIZE**

To maintain tire safety, purchase new tires that are the same size as the vehicle's original tires or another size recommended by the manufacturer. Look at the tire information placard, the owner's manual, or the sidewall of the tire you are replacing to find this information. If you have any doubt about the correct size to choose, consult with the tire dealer.

#### **1.5.6. TIRE TREAD**

The tire tread provides the gripping action and traction that prevent your vehicle from slipping or sliding, especially when the road is wet or icy. In general, tires are not safe and should be replaced when the tread is worn down to 1/16 of an inch. Tires have built-in treadwear indicators that let you know when it is time to replace your tires. These indicators are raised sections spaced intermittently in the bottom of the tread grooves. When they appear "even" with the outside of the tread, it is time to replace your tires. Another method for checking tread depth is to place a penny in the tread with Lincoln's head upside down and facing you. If you can see the top of Lincoln's head, you are ready for new tires.

#### **1.5.7. TIRE BALANCE AND WHEEL ALIGNMENT**

To avoid vibration or shaking of the vehicle when a tire rotates, the tire must be properly balanced. This balance is achieved by positioning weights on the wheel to counterbalance heavy spots on the wheel-and-tire assembly. A wheel alignment adjusts the angles of the wheels so that they are positioned correctly relative to the vehicle's frame. This adjustment maximizes the life of your tires. These adjustments require special equipment and should be performed by a qualified technician.

#### **1.5.8. TIRE REPAIR**

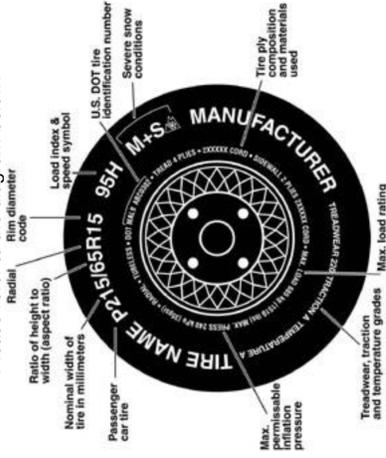
The proper repair of a punctured tire requires a plug for the hole and a patch for the area inside the tire that surrounds the puncture hole. Punctures through the tread can be repaired if they are not too large, but punctures to the sidewall should not be repaired. Tires must be removed from the rim to be properly inspected before being plugged and patched.

#### **1.5.9. TIRE FUNDAMENTALS**

Federal law requires tire manufacturers to place standardized information on the sidewall of all tires. This information identifies and describes the fundamental characteristics of the tire and also provides a tire identification number for safety standard certification and in case of a recall.

### 1.5.9.1. Information on Passenger Vehicle Tires

Please refer to the diagram below.



**P** The "P" indicates the tire is for passenger vehicles.

#### Next number

This three-digit number gives the width in millimeters of the tire from sidewall edge to sidewall edge. In general, the larger the number, the wider the tire.

#### Next number

This two-digit number, known as the aspect ratio, gives the tire's ratio of height to width. Numbers of 70 or lower indicate a short sidewall for improved steering response and better overall handling on dry pavement.

#### R

The "R" stands for radial. Radial ply construction of tires has been the industry standard for the past 20 years.

#### Next number

This two-digit number is the wheel or rim diameter in inches. If you change your wheel size, you will have to purchase new tires to match the new wheel diameter.

#### Next number

This two- or three-digit number is the tire's load index. It is a measurement of how much weight each tire can support. You may find this information in your owner's manual. If not, contact a local tire dealer. Note: You may not find this information on all tires because it is not required by law.

#### M+S

The "M+S" or "M/S" indicates that the tire has some mud and snow capability. Most radial tires have these markings; hence, they have some mud and snow capability.

#### Speed Rating

The speed rating denotes the speed at which a tire is designed to be driven for extended periods of time. The ratings range from 99 miles per hour (mph) to 186 mph. These ratings are listed below. Note: You may not find this information on all tires because it is not required by law.

## Tire Safety Information

Letter Rating	Speed Rating
Q	99 mph
R	106 mph
S	112 mph
T	118 mph
U	124 mph
H	130 mph
V	149 mph
W	168* mph
Y	186* mph

\* For tires with a maximum speed capability over 149 mph, tire manufacturers sometimes use the letters ZR. For those with a maximum speed capability over 186 mph, tire manufacturers always use the letters ZR.

#### U.S. DOT Tire Identification Number

This begins with the letters "DOT" and indicates that the tire meets all federal standards. The next two numbers or letters are the plant code where it was manufactured, and the last four numbers represent the week and year the tire was built. For example, the numbers 3197 means the 31st week of 1997. The other numbers are marketing codes used at the manufacturer's discretion. This information is used to contact consumers if a tire defect requires a recall.

#### Tire Ply Composition and Materials Used

The number of plies indicates the number of layers of rubber-coated fabric in the tire. In general, the greater the number of plies, the more weight a tire can support. Tire manufacturers also must indicate the materials in the tire, which include steel, nylon, polyester, and others.

#### Maximum Load Rating

This number indicates the maximum load in kilograms and pounds that can be carried by the tire.

#### Maximum Permissible Inflation Pressure

This number is the greatest amount of air pressure that should ever be put in the tire under normal driving conditions.

#### 1.5.9.2. UTQGS Information

##### Treadwear Number

This number indicates the tire's wear rate. The higher the treadwear number is, the longer it should take for the tread to wear down. For example, a tire graded 400 should last twice as long as a tire graded 200.

##### Traction Letter

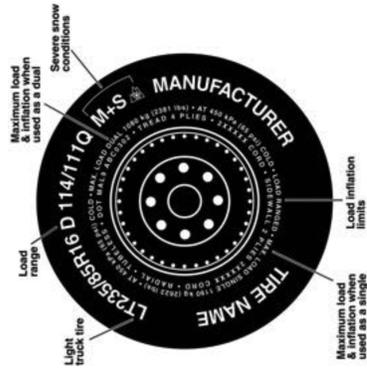
This letter indicates a tire's ability to stop on wet pavement. A higher graded tire should allow you to stop your car on wet roads in a shorter distance than a tire with a lower grade. Traction is graded from highest to lowest as "AA," "A," "B," and "C".

##### Temperature Letter

This letter indicates a tire's resistance to heat. The temperature grade is for a tire that is inflated properly and not overloaded. Excessive speed, underinflation or excessive loading, either separately or in combination, can cause heat build-up and possible tire failure. From highest to lowest, a tire's resistance to heat is graded as "A," "B," or "C".

### 1.5.9.3. Additional Information on Light Truck Tires

Please refer to the following diagram.



Tires for light trucks have other markings besides those found on the sidewalls of passenger tires.

#### **LT**

The "LT" indicates the tire is for light trucks or trailers.

#### **ST**

An "ST" is an indication the tire is for trailer use only.

#### **Max. Load Dual kg (lbs) at kPa (psi) Cold**

This information indicates the maximum load and tire pressure when the tire is used as a dual, that is, when four tires are put on each rear axle (a total of six or more tires on the vehicle).

#### **Max. Load Single kg (lbs) at kPa (psi) Cold**

This information indicates the maximum load and tire pressure when the tire is used as a single.

#### **Load Range**

This information identifies the tire's load-carrying capabilities and its inflation limits.

### **1.6. TIRE SAFETY TIPS**

#### **Preventing Tire Damage**

- Slow down if you have to go over a pothole or other object in the road.
- Do not run over curbs or other foreign objects in the roadway, and try not to strike the curb when parking.

#### **Tire Safety Checklist**

- Check tire pressure regularly (at least once a month), including the spare.
- Inspect tires for uneven wear patterns on the tread, cracks, foreign objects, or other signs of wear or trauma.
- Remove bits of glass and foreign objects wedged in the tread.
- Make sure your tire valves have valve caps.
- Check tire pressure before going on a long trip.
- Do not overload your vehicle. Check the Tire Information and Loading Placard or User's Manual for the maximum recommended load for the vehicle.

## TOW DOLLY PARTS LIST

Prices are subject to change without notice

	Price		Price
Actuator Tie Down 2in 7000 lb Low Profile Drum Brake.....	200.53	Paint Aerosol Spray- Master Tow Dolly Blue .....	14.02
Anti-Theft Wheel Lock .....	128.13	Paint Aerosol Spray- Master Tow Dolly Cream.....	14.02
Bearing Cone 1-1/16 ID (L44649) - Outer Bearing.....	5.90	Poly Pad Mounting Bolt & Nut Set (1 set per pad) (2 sets per dolly) (All models).....	5.40
Bearing Cone 1-3/8 ID (L68149) - Inner Bearing.....	7.12	Polyethylene - 77T Dollies - Pad 5in x 17in - Outer Pad (2 per dolly) .....	6.50
Bearing Cup - for 1-1/16 Bearing - (L44610).....	4.80	Polyethylene - 80THD - Pad 5in x 18in - Outer Pad (2 per dolly).....	8.12
Bearing Cup - for 1-3/8 Bearing (L68111).....	6.15	Polyethylene Pad 4in x 4in - Center Pan Bolt Swivel Pad (1 per dolly).....	5.48
Bearing Kit 3.5K Axle (one side).....	18.70	Ratchet Short Handle 10K cap.....	13.89
Brake Assy 3.5K 10x2 1/4 Hyd Free backing LH.....	84.19	Reflector Amber.....	2.23
Brake Assy 3.5K 10x2 1/4 Hyd Free backing RH.....	84.19	Reflector Red.....	2.23
Brake Assy 3.5K Electric LH 10x2 1/4.....	62.77	Safety Chain Hardware Set - Bolt, Washer and Nut (2 sets per dolly) (All models) .....	5.03
Brake Assy 3.5K Electric RH 10x2 1/4 .....	62.77	Safety Chain Rubber Safety Closure (2 per dolly).....	1.85
Brake Drum Assy 3.5K w races bearings and seal 10x2-1/4.....	73.30	Safety Chain Set Class III (Set of 2 Includes: Chains, Bolts, Washers, Nuts and S-Hook Safety Closures).....	24.57
Brake Shoe & Lining Kit for 3.5K 10x2 1/4 Electric Brake (one wheel) .....	47.86	Spare Tire Mount - Lockable .....	22.12
Brake Shoe & Lining set for 3.5K 10x2-1/4 Hydr. Free Backing Brake ( replacement for one wheel).....	55.43	Spindle Castle Nut 1-12.....	2.52
Breakaway Kit with Charger (Pastic Box w/ ear mount).....	64.62	Spindle D- Washer.....	2.40
Carrying Pan Assembly 77T (No Ratchets).....	321.92	Spindle D-Tang Washer.....	2.03
Carrying Pan Assembly 80THD (no ratchets).....	367.48	Spindle w Flange Welded on End Plate LH.....	69.23
Carrying Pan Bolt Washer & Nut Set (1 set per Dolly) (All Models) .....	14.90	Spindle w Flange Welded on End Plate RH.....	69.23
Corner Brace for Poly Fender - Master Tow Dolly .....	5.85	Straps Tow Dolly 13-14 non adjustable (set).....	53.42
Coupler 2in ball Class III 5000 lb - weld on replacement for all models.....	18.80	Straps Tow Dolly 15-16 non adjustable (set) .....	56.62
Coupler latch safety pin.....	0.43	Straps Tow Dolly Buckle Adjustable (set) .....	47.65
Coupler Repair Kit Class III 5000 lb (2009 and later models) .....	12.05	Straps Tow Dolly Ring Adjustable (set).....	51.71
Decal- American Flag- Printed Red & Blue on White 2.25x2 .....	0.61	Tilt Cuff Bolt & Nut Set (1 set per dolly) (All models).....	6.24
Decal- Caution- 2.5x4 Printed Black on Yellow for Tongue .....	0.68	Tilt Pin with lanyard and clip.....	8.29
Decal- Master Tow- 2.25x20.36 Printed Burgundy on 4 mil. Premium clear vinyl scored and square cut.....	2.01	Tire and Wheel ST175/80D13 LRC Sport Trail Mtd on Silver Directional 13x4.5 5/4.5.....	115.82
Decal- Warning- 3x2 Printed Black on Yellow for Fender.....	0.42	Tire and Wheel ST205/75D14 LRC Sport Trail Mtd on Silver Comet 14x5.5 5/4.5 1/2 pos offset .....	137.05
Dolly Fender Complete - No Lights .....	70.94	Tire and Wheel ST205/75R14 LRC Radial Trail Mtd on Silver Comet 14x5.5 5/4.5 1/2 pos offset.....	160.22
Fender Assy - Poly - LED Lights - DS - Complete with corner braces wiring decal and reflector.....	118.63	Tire ST205/75D14 LRC Sport Trail.....	97.91
Fender Assy - Poly - LED Lights - PS - Complete with corner braces wiring decal and reflector.....	118.63	Tire ST205/75R14 LRC Radial Trail .....	116.57
Fender Assy - Poly -Transport Canada Compliant - LED Lights - DS - Complete with corner braces wiring decal and reflector.....	158.94	Tongue Assembly - no coupler - Surge Brake - with decals .....	102.26
Fender Assy - Poly -Transport Canada Compliant - LED Lights - PS - Complete with corner braces wiring decal and reflector.....	138.80	Tongue Assembly with Coupler - Idler & Electric Brake - with decals.....	117.31
Fender Cable Tie - 4in - for Poly Fenders - (6 per Fender).....	0.16	Tongue Handle Grip Cover.....	3.32
Fender Corner Brace & hardware for Polyethylene Dolly Fender (2 per fender) .....	12.35	Tongue Support Bar (2 per dolly) (All models).....	12.18
Fender License Plate Bracket Kit (metal bracket with light and all necessary hardware).....	20.14	Tongue Support Bar front bolt washers & nut set (1 set per dolly) (All models) .....	6.79
Fender Light - LED Amber - Front - 6in Oval Sealed Grommet Mount 10 Diodes .....	18.45	Tongue Support Bar rear bolt washer & nut set (2 sets per dolly) (All models) .....	4.72
Fender Light - LED Red - Rear - 6in Oval Sealed Grommet Mount 10 Diodes .....	18.45	Towed Vehicle Auxillary Light Kit - Magnetic Base with splitter harness .....	62.96
Fender Light Retainer (2 per fender).....	6.98	Towed Vehicle Security Chain Set for (Set of 2 Includes: Chains, Bolts, Washers, Nuts and S-Hook Safety Closures) .....	24.57
Fender Light Retainer Bolt Set (2 sets reqd. per fender).....	5.77	Transport Canada Compliance Upgrade Kit.....	159.27
Fender Mounting Bracket for Polyethylene Dolly Fender (1 per fender).....	15.81	Wheel 14x5.5 5/4.5 Silver Comet w 1/2in pos offset.....	65.05
Fender Mounting Washer & Nut Set -8 sets per dolly (1-nut & 1-washer).....	2.23	Winch Cable 20' w/ Forged Snap Hook.....	22.67
Fender Only - Poly - Either Side.....	47.44	Winch Kit (hand crank) w steel cable 1800 lb. cap.....	97.82
Hub Assy w races bearings and seal - 3.5K Idler Axle .....	47.78	Wiring Harness - Dolly Axle - Electric Brake.....	15.65
Hub Grease Cap 3.5K .....	4.00	Wiring Harness - Dolly Axle - Idler.....	9.30
Hub Grease Cap Plug .....	1.51	Wiring Harness - Dolly Fender - Poly - 3 pin plug .....	6.74
Hub Grease Seal 1-3/4in Double Lip.....	2.90	Wiring Harness - Dolly Fender - Poly - Transport Canada Compliant 3 pin plug .....	7.36
Hub Lug Nut 1/2-20 w/ 60deg Cone .....	1.15	Wiring Harness - Dolly Tongue - Electric Brake.....	20.49
Hub Lug Stud 1/2-20 .....	2.31	Wiring Harness - Dolly Tongue - Idler & Surge Brake .....	9.61
		Wiring Harness - 12 in. Y Splitter - For use with Auxillary light kit .....	9.83

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Purchase Date \_\_\_\_\_

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