When buying tube type tires it is important to understand the reasons behind making a tire tube type and when it is appropriate to run the tire with or without a tube. The following information will help in the decision making process.

1. Air retention
   Tube type tires are not guaranteed to hold air without a tube. If a tube type tire leaks, it is not defective. There is a liner molded into the carcass of a tire that seals it and makes it tubeless. This liner is intentionally omitted from racing tires. This is done primarily for weight purposes. More on that later.

2. Consistency
   Without a tube you cannot maintain consistent air pressure. Even the slightest leakage will cause a difference in the performance of the tire. Therefore if consistency is the primary goal, as in Bracket Racing, a tube should always be used.

3. Strength
   The wrinkling of the sidewall that is visible at launch causes the carcass material in the tire to break down over time. The more violent the launch the quicker this break down occurs. Inconsistent 60' times or a drop off of 60' times usually indicate that this is happening. When this happens the tires should be replaced, regardless of the amount of tread rubber remaining. The use of tubes strengthens the sidewall of the tire and keeps this breakdown from happening prematurely, therefore extending the life of the tire. This will save money in the long run.

4. Weight & performance
   In some cases it is acceptable to run a racing tire without a tube. When a car competes in a heads up class, unsprung weight is an important factor. Tires and tubes are all unsprung weight. One pound of "unsprung" weight is equal to 8 pounds of "sprung" weight. The average tube weighs about 6 pounds. Therefore, if you eliminate the tubes you have eliminated the equivalent of 96 pounds from the car. For every 10 pounds of unsprung weight removed you may pick up as much as .01 seconds in quarter mile ET.

5. Cost
   All natural rubber tubes are expensive. All M/T tubes are made of Natural Rubber and feature a clamp down valve stem. There are some inexpensive Butyl rubber tubes on the market. Even some with clamp down valve stems. Natural rubber is, by far, the better choice. It conforms to the wrinkles better. Dissipates heat better. And it doesn't get brittle like butyl does. Therefore M/T natural rubber tubes offer superior performance and will last far longer.

6. Safety
   At a racetrack you must check air pressure regularly. This is important to maintain performance and to insure pressures are not too low. Low pressure can be dangerous. Never run tube type tires on the street without a tube. Leakage and the prolonged heat build up can lead to tire failure and serious injury or death. This is not a matter to take lightly.

THE BOTTOM LINE
THE DECISION TO RUN WITH OR WITHOUT TUBES SHOULD ALWAYS BE BASED ON SAFETY AND PERFORMANCE. NOT COST!
MOUNTING PROCEDURES FOR TUBE TYPE TIRES

1. Check the valve stem hole in the rim. The hole must be 5/8". Note: If necessary to drill the valve stem hole in the rim, make sure the rim is de-burred and free of material and sharp edges.

2. Before installing new tubes pre-inflate the tubes to the approximate diameter of the tire. This will aid in filling the entire cavity of the tire by giving the tube a "stretch". Note: This will also aid in valve stem placement on wide rims where the valve stem is offset on the rim, but not on the tube.

3. Clean the bead and all interior surfaces of the rim.

4. Place wheel on tire changer following the equipment manufacturers instructions.

5. Insert tube in tire and partially inflate. It may help to lubricate the tube with baby powder. If you're using a liquid lubricant on the bead, do not allow lubricant to run between the tire and the tube. DO NOT use anti freeze, silicones or petroleum based lubricants.

6. Mount bottom bead on the wheel being careful not to pinch the tube on the rim.

7. Align the tube valve with the valve stem hole in rim. Insert and center the stem in the hole.

8. Mount the top bead of the tire on the rim so that the bead in the valve area is the last part of the bead to go over the rim flange. Be careful not to pinch or move the tube. Recenter the valve stem, if necessary, by rotating both the tire and tube. After centering the valve stem install the valve stem clamp ring.

9. Inflate tire assembly slowly to seat tire beads. Do not exceed 40 p.s.i. to seat beads.

10. To prevent tube wrinkling, remove valve core to completely deflate the tube. Reinsert valve core and firmly seat it. It may be necessary to repeat this process to eliminate any wrinkles. Note: See second half of this bulletin for further details.

11. Reinflate assembly to proper pressure.

WHAT TO DO IF YOU FIND "LOW SPOTS" OR "WRINKLES" IN A TUBE TYPE TIRE
You may notice a "low spot" or "wrinkle in a tube type tire. (See diagram #1) This can be caused by one of the following:
A. Wrong tube size (too large or too small).

B. Faulty tube installation (wrinkles in tube).

To confirm the problem, you can do one of two things:

1. Break the tire down and rotate it on the rim. You'll note that the low spot, if it is still there, has not moved.

2. Break the tire down and remove the tube. Install a valve stem and inflate the tire. You'll note there is no low spot.

To correct the problem, first be sure the correct tube size is used. The proper tube is listed in the Mickey Thompson spec sheet. To eliminate wrinkles, the tube should be inflated and deflated during installation. If the wrinkle persists, you may need to lubricate the tube with baby powder and/or break the tire down and work the wrinkles out by hand. Note: If the wrinkles are not removed or the wrong tube size is used, premature tube failure will occur.

Diagram #1:

This is Mickey Thompson DRAG / STREET Technical Bulletin #2.
For more information regarding Mickey Thompson Performance Products ph: 330.928.9092
MOUNTING PROCEDURES FOR TUBE TYPE TIRES

1. Begin by Drilling 12 equally spaced holes on both the inner and outer flange of the rim. Drill the holes so that one hole goes straight into the rim and the next hole goes into the rim flange at a 45 degree angle (see diagram #1).
   Note: (Mickey Thompson strongly suggests that you use Drag slick mounting screws only, and that you follow the rim screw manufacturers suggested drill bit size.)

2. Trial run the screws through all 24 holes. Running screws in the hole and back out again.

3. Check for any sharp edges that the screw may have pushed out or caused during the trial run through. If any sharp edges are found debur and make sure rim is smooth and clean.

4. Mount tire and tube. Have professional install the tire and tube on proper equipment or see Mickey Thompson tech bulletin #2 for help.

5. Inflate the wheel and tire assembly to 20 psi.

6. Install screws into wheel and tire assembly. Deflate assembly to operating pressure. Inspect rim flange and bead area for proper bead seating. If bead is not fully seated, reinflate and reinstall screws.

7. Static balance or "Bubble Balance" the assembly once screws are installed.

8. Periodically you should check the wheel for loose screws and inspect the rim bead area to be sure that there is no bead area separation.
   Note: It would be good practice to inspect after each pass when you are checking your air pressure.
This is Mickey Thompson DRAG / STREET Technical Bulletin #4.
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330.928.9092
ET STREET™ AND ET DRAG®
AIR PRESSURE GUIDELINES

PROPER AIR PRESSURE
Proper air pressure is critical to the best performance of your ET Drag or ET Street racing tires. Recommending air pressure is not easy, since there are so many variables that affect it: i.e. weight distribution, transmission, chassis set-up, wheel size, etc. To help you, we have broken down the types of vehicles into the following six categories with a recommended starting point for the correct air pressure. Keep in mind that these are only starting points. Actual optimum air pressure may vary significantly. If you have been running another brand of slick on your racecar, we generally recommend you start with the same air pressure you were running and go up in ½ pound increments until you get the best performance. Most racers will usually end up with ½ to 2 pound more air pressure in a Mickey Thompson tire.

Note: Many racers feel that "Less is Better" with regard to air pressure. This is not always the case. While there are exceptions to every rule, we have found higher pressure generally works best with Mickey Thompson Tires. Not only do the higher pressures lead to quicker times, but they also contribute to a safer, more stable ride at the finish line.

<table>
<thead>
<tr>
<th>VEHICLE WEIGHT</th>
<th>TIRE SIZE</th>
<th>AIR PRESSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNDER 2,500 POUNDS</td>
<td>UNDER 30” DIAMETER</td>
<td>6 P.S.I. AND UP</td>
</tr>
<tr>
<td>UNDER 2,500 POUNDS</td>
<td>OVER 30” DIAMETER</td>
<td>4 P.S.I. AND UP</td>
</tr>
<tr>
<td>2,500 TO 3,000 POUNDS</td>
<td>UNDER 30” DIAMETER</td>
<td>8 P.S.I. AND UP</td>
</tr>
<tr>
<td>2,500 TO 3,000 POUNDS</td>
<td>OVER 30” DIAMETER</td>
<td>6 P.S.I. AND UP</td>
</tr>
<tr>
<td>OVER 3,000 POUNDS</td>
<td>UNDER 30” DIAMETER</td>
<td>16 P.S.I. AND UP</td>
</tr>
<tr>
<td>OVER 3,000 POUNDS</td>
<td>OVER 30” DIAMETER</td>
<td>10 P.S.I. AND UP</td>
</tr>
</tbody>
</table>

Mickey Thompson also recommends that you invest in a good tire pressure gauge and that you keep accurate and complete records of each pass. This will aid you in becoming a consistent performer.
DRAG SLICK COMPOUND, ROLLOUT, AND BURNOUT SPECIFICATION SHEET

CURRENT COMPOUND SELECTION AND APPLICATION GUIDE
The compound number can be found in the serial number on each tire.
EXAMPLE: CY1J M5 FJ087 M5-Compound code.

Mickey Thompson tires are compounded by size and application. The following points are general application suggestions. Mickey Thompson is not responsible for misapplications.
The catalog number suffix indicates a construction, size or compound enhancement for particular applications.

ST= Suggested for manual transmission (Medium compound)
W= Extra tread width (please note actual tread and section width on spec sheet)
S= Stiff sidewall construction. Recommended for 4 link suspension cars, heavy cars (over 3000lb.), and "soft ride" Rear Engine Dragsters. Aids in quicker reaction time due to less tire distortion.

MICKEY THOMPSON COMPOUND SELECTION CHART

<table>
<thead>
<tr>
<th>Medium</th>
<th>Soft</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1 M7 M5</td>
<td>R2 R1 L8 L7 M9</td>
</tr>
</tbody>
</table>

- B1- For motorcycles.
- B2- For motorcycles.
- L4 - Soft compound for Dragsters, lightweight vehicles and vehicles without rear suspension.
- L7- For motorcycles.
- L8- Good compound for general use.
- M2- For Jr. Dragsters.
- M5- Good compound for general use.
- M7- Good compound for general use.
- M9- Aggressive compound for heavy cars, 3000lbs+
- R1- Special Compound for ET Drag Radial.
- R2- Special Compound for ET Street Radial.

MICKEY THOMPSON NATURAL RUBBER RACING TUBES
Besides being required for air retention, Mickey Thompson racing tubes will enhance the reaction time, increase stiffness and reduce sidewall shock and deflection when launching.
Note: Always run the correct size tube for the application, the wrong tube will always fail.

ROLLOUT (CIRCUMFERENCE)
Always check the rollout (circumference) of tires when they are first mounted to see if they are within ¾” of each other. The tires must be matched before they are run. This can be done by over inflating the shorter tire and letting it sit a short period of time to allow it to stretch. It is very important to monitor this procedure to avoid stretching too much. Never inflate tires over 40 PSI to stretch them.
Note: This procedure will only work before a tire has been used.

BURNOUTS- FOR MOST APPLICATIONS
1. First pass of the day hard burnout. After that follow general guidelines of #2 and #3 stated below.

2. Automatic transmissions and Softer compounds: First pass or two, fairly hard burnout, after that a light burnout should be sufficient.

STORAGE PROCEDURES AND TIPS
During the winter months or whenever tires are being stored for long periods of time, the following tips and guidelines should be followed to help extend the life of Mickey Thompson ET Street or ET Drag tires.

1. Remove the tires from the car or jack the car up to remove the load.

2. Drop air pressure to 5 pounds.

3. Keep the tires away from direct light (sun or fluorescent). It is best to keep tires covered.

4. Keep tires away from electric motors I.E. furnace, air compressor, etc. These create OZONE, which will damage the tire.

5. Mickey Thompson suggests that you keep tires away from extreme high and low temperatures.

6. Do not use any chemicals on the tires. To clean them use a mild detergent and water. Rinse well. Do not clean the tread surface.

By following these simple precautions you will get the best service from your tires. If you experience inconsistent 60' & 330' times the next season, it's probably time to replace the tires.