

Stop check: hubs and tyres

B-double · prime mover + A-trailer + B-trailer

DATE

TIME

LOCATION

DRIVER

ODOMETER (KM)

KM SINCE LAST STOP

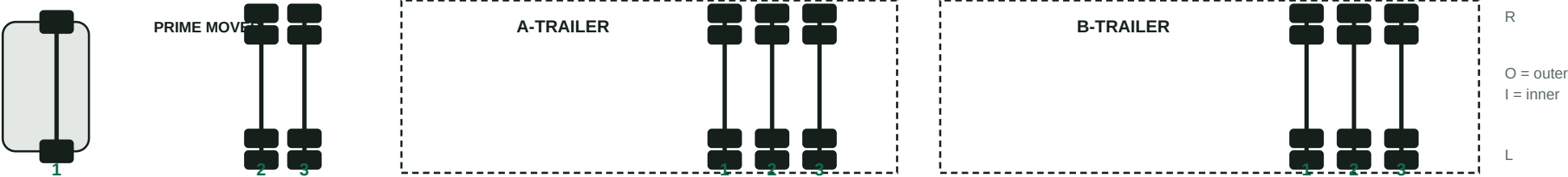
AMBIENT °C

PRIME MOVER REGO

A-TRAILER REGO

B-TRAILER REGO

LAYOUT · FROM ABOVE · FRONT ON THE LEFT · R = DRIVER SIDE (TOP), L = KERB SIDE (BOTTOM)



Axes are numbered from the front of each unit: prime mover 1 (steer), 2 and 3 (drive); each trailer 1, 2, 3. Same numbering as GoTireHub.

Unit	Axle	Side	Hub °C	Tyre O °C	Tyre I °C	Hot psi O	Hot psi I	Look, feel, smell, sound
Prime mover	1 steer	R		single tyre		single tyre		
	1 steer	L		single tyre		single tyre		
	2	R						
	2	L						
	3	R						
	3	L						
A-trailer	1	R						
	1	L						
	2	R						
	2	L						
	3	R						
	3	L						
B-trailer	1	R						
	1	L						
	2	R						
	2	L						
	3	R						
	3	L						

Taking the readings

- Check within a few minutes of stopping, before things cool and even out.
- Use an infrared thermometer. Aim at the same spot each time: the hub cap or centre for hubs, the middle of the tread for tyres.
- Walk down one side and back the other, following the table, so readings compare stop to stop.
- Don't touch hubs or drums with bare hands. They can be hot enough to burn.
- Hot pressures don't compare to the cold specification, and never let air out of a hot tyre. Bleeding a hot tyre down makes things worse.

Look for the outlier, not the number

A method borrowed from motorsport: don't chase absolute temperatures. Tyres on the same axle have done identical work and should read within a few degrees of each other.

- Scan across each axle and look for the one sitting ten or fifteen degrees above its mates. That's the soft one, or the one with a separation starting.
- It works on inner duals too: the tyre you can't see or easily gauge can't hide its heat from its own pair.
- Compare hubs the same way, against the other hubs in the group. A hub running hot answers the bearing and brake question. A hot tyre answers the tyre question.
- Write it down every stop. A reading creeping up stop after stop is the early warning.

What a hot one can mean

- Hot hub: dragging brake, a brake not releasing (often on the last trailer, where air is slowest to replenish), or a bearing going. Also check for grease on the rim, the smell of hot brakes, or noise.
- Hot tyre, cooler mate: the hot tyre may be soft, or a tread may be starting to separate from the casing.
- Both tyres of a dual hot: check the load on that group, the hub, and the brake on that wheel end.

The inner dual and load sharing

Duals share their wheel end by pressure. A slow leak on an inner dual can't be seen and isn't felt, because its mate carries the load. The soft tyre flexes more and heats; the good one carries up to double its share. At flat, the mate is carrying the whole wheel end on its own.

A cold check at the depot doesn't catch a casing that goes down at hour four. Continuous pressure monitoring while driving is the structural answer on long combinations.

The hardest-working group

Heat goes to the group that runs closest to its limit for longest. On a B-double that's usually the lead (A) trailer: its own freight plus the B-trailer's kingpin load. It's where tyre specification matters most, and where to look first.

GoTireHub works out what each tyre carries from your weighbridge weights, and the pressure its maker's table needs for that load.