



MICHELIN TECH TALK

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TIPS & ADVICE: CUSTOMER NEW TRUCK CHECK AND STANDARD PRESSURE RECOMMENDATION

To provide new truck tractor checks with technical information and recommendation of the inflation pressure for **CAI's: 655562 - 385/65R22.5 X MULTI HL Z TL 164K VG MI and 258778 - 315/80R22.5 X MULTI HD D 156/150L TL VM MI** on a 6x4 configuration used in an On Road application.



Wheel Nuts - Tighten inner and outer wheel nuts to the proper torque. (610 -678 Newton Meters). After **81 to 161 Kilometers** of operation, the torque should be rechecked.



Sources: Technical product information - Africa, India and Middle East 2024 Data Book. Torque specs - Michelin Truck Tire Service Manual. Weight carrying characteristics as per the Road Traffic act of South Africa - <https://www.transport.gov.za/>

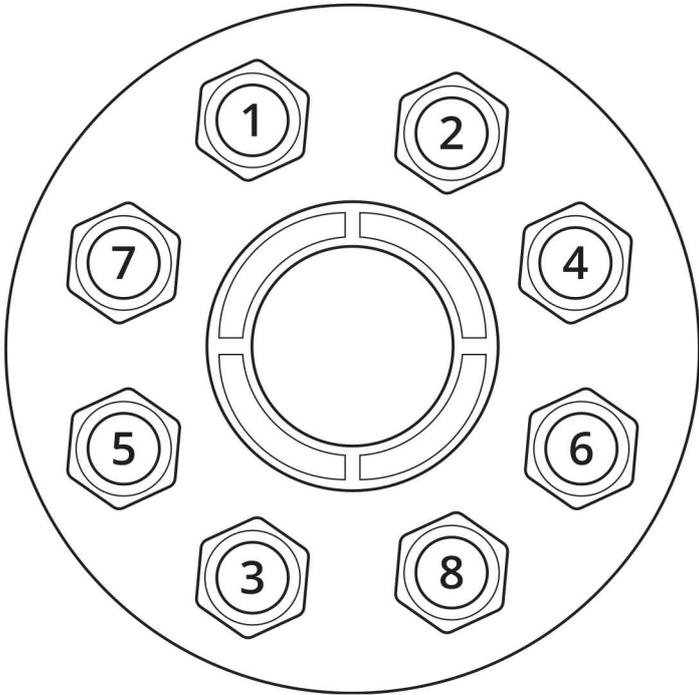
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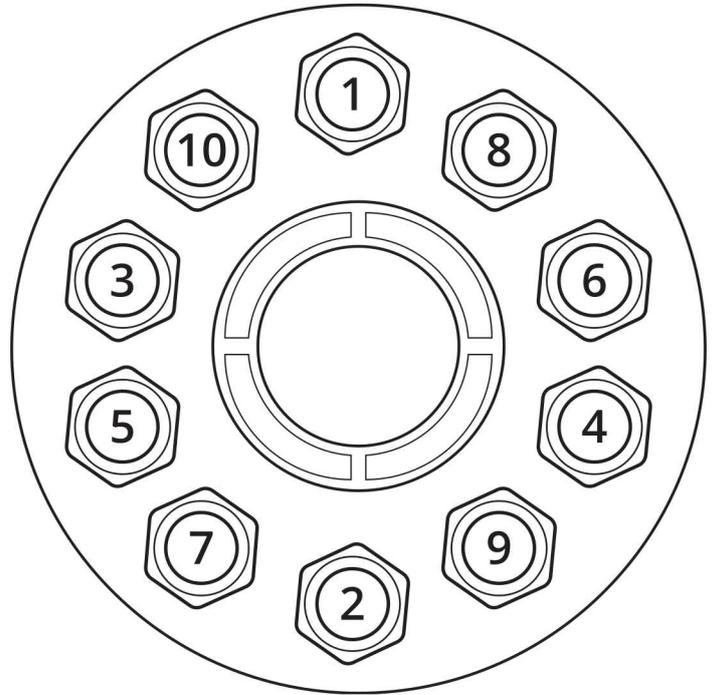


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**THE TORQUE SEQUENCE MUST BE FOLLOWED
AS PER THE BELOW:**



EIGHT STUD



TEN STUD



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PERIODIC ALIGNMENT CHECKS

AN AGGRESSIVE ALIGNMENT PREVENTATIVE MAINTENANCE PROGRAM SHOULD INCLUDE THE FOLLOWING PERIODIC CHECKS



UPON DELIVERY OF NEW VEHICLES

Even though OEMs make a concerted effort to properly align vehicles at the assembly plant, shifting and settling can occur during delivery. Camber and caster may not change much, but toe and tandem axle parallelism may change sufficiently to set up undesirable tyre wear patterns if not corrected upon receipt.

AT THE FIRST MAINTENANCE CHECK

Post break-in alignment checks should be done between 24,000 - 48,000 kilometers, but no later than 90 days after the first in-service date. If shifting and settling did not occur during delivery, it may occur during the first few thousand km's of operation. Many OEMs recommend verification of torque on suspension/frame components after a few thousand km's of operation. A thorough alignment check should be made during this inspection (after torque verification). Consideration should be given to different torque requirements on metric and standard bolts.

WHEN NEW STEER TYRES ARE INSTALLED

Or front-end components are replaced the steer tyres coming out of service can tell a story of good or bad alignment. With this feedback, an alignment program can continue to improve. Without feedback, the best an alignment program can do is stay at its current level.

WHEN TYRE WEAR INDICATES A CONCERN

Understanding tyre wear can help identify alignment issues. Unfortunately, correcting the alignment does not necessarily correct the tyre wear pattern once an undesirable wear pattern has been established.

TYRES - CHECK TYRE PRESSURES AS PER BELOW
STANDARD TYRE PRESSURES* ARE BASED ON A 6X4 TRUCK
TRACTOR USED IN AN ON-ROAD APPLICATION



* In order to determine the exact tyre pressure a truck tractor load study would need to be carried out based on the load per axle.

PRODUCT INFORMATION:

Dimension	Tread Pattern	Type	PR (Ply Rating)	Load / Speed index	Unique point (1)	Dimensional Characteristics					MICHELIN Recommended rim (inch)	Tube (6)	Flap (5)	Seal (6)
						Dimensions E.T.R.T.O			MICHELIN Dimensions					
						S= Maximum section width in service	D= Maximum diameter in service	RC/CdR= Rolling circumference	R= Static laden radius	E= Minimum dual spacing				
22.5 INCH														
385/65R22.5	X MULTI HL Z	TL	20	164K	158L	405	1092	3331	494	438	11.75			
315/80R22.5	X MULTI HD D	TL	18	156/150L		318	1032	3148	507	356	9.00			

Sources: Technical product information - Africa, India and Middle East 2024 Data Book. Torque specs - Michelin Truck Tire Service Manual. Weight carrying characteristics as per the Road Traffic act of South Africa - <https://www.transport.gov.za/>



TABLE OF INFLATION PRESSURE (BAR) IN RELATION TO MAXIMUM LOAD PER AXLE (KG)

psi	43.5	50.8	58.0	65.3	72.5	79.8	87.0	94.3	101.5	108.8	116.0	123.3	130.5
bar	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00
Single							6940	7460	7960	8480	8980	9500	10 000

TABLE OF INFLATION PRESSURE (BAR) IN RELATION TO MAXIMUM LOAD PER AXLE (KG)

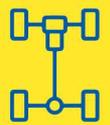
psi	43.5	50.8	58.0	65.3	72.5	79.8	87.0	94.3	101.5	108.8	116.0	123.3	130.5
bar	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00
Single							5560	5980	6380	6800	7200	7620	8000
Dual							9320	10 000	10 680	11 400	12 080	12 760	13 400

PLEASE NOTE

- At a pressure of **8.00 bar** on single tyres the maximum load per axle in kg. is **8980 kg**.
- At a pressure of **6.50 bar** on dual tyres the maximum load per axle in kg. is **10 000 kg**.

**LEGALLY PERMISSIBLE
MAXIMUM LEGAL LOADS ON AXLES AND AXLE GROUPS**

Regulation 240 stipulates that axle mass loads shall not exceed those given in the Figure below:

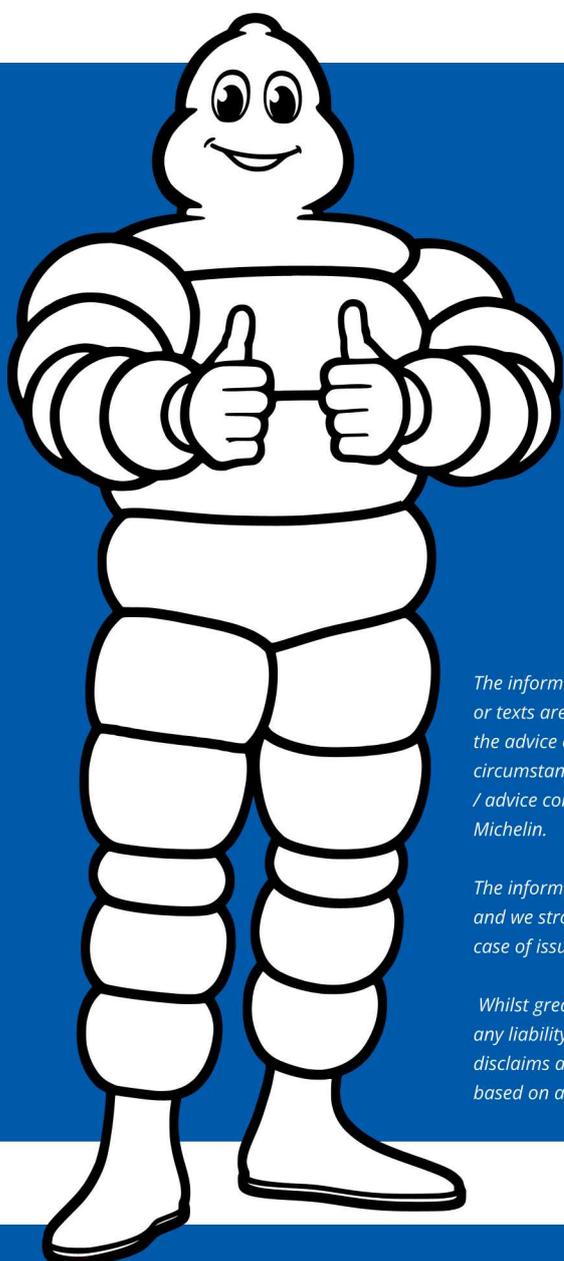


STEERING AXLES	 7 700kg	 15 400kg	 23 100kg
AXLES WITH DUAL WHEELS	 9 000kg	 18 000kg	 24 000kg

MICHELIN TYRE PRESSURE RECOMMENDATION



AXLE TYPE	MAXIMUM LEGAL LOAD PER AXLE	RECOMMENDED PRESSURE
STEER AXLE	7 700 kg	8.00 bar
DRIVE AXLE	9 000 kg	6.50 bar



AT MICHELIN, WE UNDERSTAND THAT THE LIFESPAN OF THE TYRES IN YOUR FLEET IMPACTS YOUR BUSINESS. AND THEREFORE **WE ARE COMMITTED** TO HELPING YOU OPTIMISE THIS AND MAKE EVERY MILLIMETRE COUNT.

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