

# TIRE SAFETY FOR GMCERS

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# TIRE SAFETY

## *Scratching the surface of tire safety*

- 🌀 About RV and truck tires.
- 🌀 How old is too old? (How to tell.)
- 🌀 Is pressure important?
- 🌀 What about tread depth?
- 🌀 Shopping for tires.






# TIRES ARE DIFFERENT

-  RV and truck tires differ from auto tires
-  Light truck also varies from heavy truck and larger RV tires
-  Tire properties vary
  -  Pressure
  -  Driving/usage conditions
  -  Weather
  -  Storage conditions



# BE ALERT

*Visual condition and tire pressure are important in addition to:*

-  Changes in dynamic performance
-  Persistent air loss
-  Noise or vibration

*Tires may need to be removed from service even though tread looks good*



# TIRES AND AGING

*Calendar date alone not a guide for replacement*

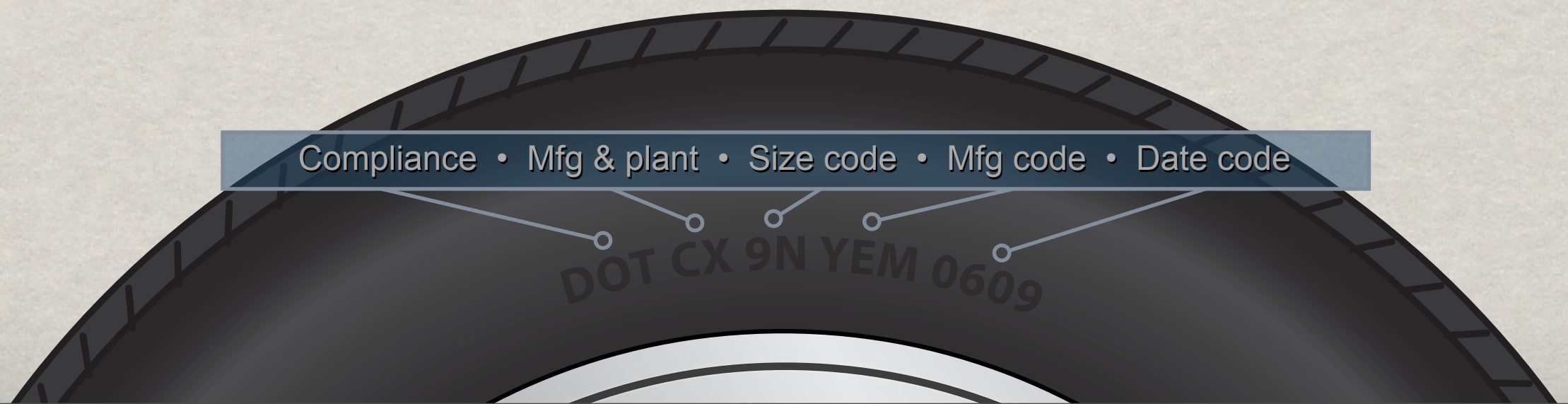
- 🌀 Older tires more susceptible to failure
- 🌀 Other service issues can determine replacement need
- 🌀 Replace tires before 10 years (including spares) even if appearing satisfactory
- 🌀 Replace tires if beyond legal-wear limit



# DATE CODE FOR TIRES

*Required by Department of Transportation*

- 🚗 Look for DOT on the wall of tire
- 🚗 Code indicates year and week of manufacture
- 🚗 Example: 0609 indicates sixth week of 2009 (some time in February 2009)





# USE GOOD JUDGEMENT





## *Mfg date, wear and general condition*

- ⦿ No hard rule as to serviceability
- ⦿ If sidewall shows signs of aging, replace
- ⦿ Tires properly cared for (protected from UV when stored) and driven regularly may last longer
- ⦿ Tires not protected from UV or driven irregularly at improper inflation will not provide lengthy service



# IS PRESSURE IMPORTANT?



*If underinflated by 20%, will weaken tire's internal structure and can lead to failure*

-  Lower pressure allows more deflection
-  Builds up more internal heat
-  Increases rolling resistance (reduction in fuel economy up to 5%)
-  Reduces the tire's tread life by as much as 25% if allowed to go uncorrected



# IS PRESSURE IMPORTANT?

*If underinflated by 20%, will weaken tire's internal structure and can lead to failure.*




-  Increases the probability of irregular tread wear.
-  May cause a blow out!

*Tire pressure should be checked when tires are cold, before the tires have been rolling for 15 minutes or two miles at highway speed*



# IS PRESSURE IMPORTANT?



## *Disadvantages of overinflation*

-  Tire is stiff and unyielding, size of footprint contacting road is reduced
-  Reduced traction and braking ability
-  If overinflated by 20%, tire could be damaged more easily when encountering potholes or debris



# IS PRESSURE IMPORTANT?

## *Disadvantages of overinflation*

-  Causes irregular tread wear
-  May reduce available traction, especially on wet roads

*Tire pressure should be checked when tires are cold, before the tires have been rolling for 15 minutes or two miles at highway speed*



# 20% Is...

Target Pressure	20% Under	20% Over
32	25.6	38.4
65	52	78
85	68	102
100	80	120



# WHAT IS CORRECT PRESSURE?





*Check manufacturer's specification or owner manual*

- ⦿ Correct pressure depends on the tire, load rating and weight of vehicle (when fully loaded)



# WHAT IS CORRECT PRESSURE?

*Check manufacturer's specification or owner manual*

-  Maximum load capacity allowed
-  Tire size
-  Load rating and
-  Minimum cold air inflation needed to carry maximum load



# WHAT IS CORRECT PRESSURE?




*Check manufacturer's specification or  
owner manual*

*The lower the air pressure, the lower  
the load that the tire can carry*



# WHAT IS CORRECT PRESSURE?

*Check manufacturer's specification or owner manual*

-  If traveling weight of vehicle varies by more than 750 pounds, adjust pressure in tires
-  Tire sidewall lists the maximum cold pressure
-  Load rating of tire relates to recommended pressure for weight



# DON'T FORGET

*In addition to the vehicle's equipment, add for the following...*

- ⦿ Typical quantity and weight of passengers
- ⦿ Capacity of fuel, fresh water, and holding tanks
- ⦿ Luggage (clothing, kitchen products, patio equipment, tools, etc)

\*Water is 8.34 pounds/ gallon; gas is 6.2 pounds/ gallon








# FOR EXAMPLE

Description	Weight
Passengers (2 @ 180)	360
Personal luggage	60
Patio items (grill, chairs)	35
Kitchen items	20
Tools (bottle jack, etc)	35
Fresh water (40)	334
Holding tanks (40)	340
Gasoline (40)	248
Total additional	1,432

\* 40 gallons of diesel weighs 286 pounds






# CHECKING FREQUENCY

-  Check at least once a month and before any major trips
-  On trips, check every morning before driving
-  Check before and after storage
  -  Some loss is expected after storing through a seasonal change
  -  Store resting frame on blocks relieving pressure on tires







# CHECKING FREQUENCY

-  Check tires when they are “cold”
-  Stated load capacity for cold inflation pressure based on ambient outside temperatures.
-  Pressure in “hot” tire may be as much as 10 to 15 PSI higher than cold tire pressure.



# CHECKING FREQUENCY

*If tires must be checked when warm...*

-  Be sure to allow for increase in pressure
-  Make sure pressure of tires on both sides of axle are within three PSI of each other
-  Never let air out of a hot tire
  -  Allow tire to cool then recheck







# CHECKING FREQUENCY

*When stopped for fuel...*

- 🌀 Visually check for bulging tire (low pressure)
- 🌀 Touch tire at top with hand; if too hot to touch, stop driving
- 🌀 Run fingers across tread to feel for wear development
- 🌀 Thump with a hammer, tires should sound alike



# TELL TALE SIGNS

-  Look at tires periodically —
  -  Does one tire bulge more than others?
  -  Does tread seem worn more on side, middle, both sides?
  -  Are there signs of sidewall damage?

*A digital tire gauge costs less than \$20 (some less than \$10), is very easy to use, more reliable than most station gauges*








# WATCH TREAD DEPTH

- ④ All tires manufactured with *wear bars*
- ④ Legal minimum tread depth is 2/32-inch;  
in practicality, minimum should be  
4/32-inch for safe operation
- ④ Use a quarter to measure








# TIPS ON PROTECTION

-  Keep the tires properly inflated
-  Keep the tires clean
-  Do not park near electric generators or transformers
-  Do not store motorhome in an area where welding is being done or in a garage with mercury vapor lamps
-  Don't use tire dressings with a petroleum, alcohol or silicone base









# TIPS ON PROTECTION

-  Avoid prolonged exposure to heat, cold or moisture
-  Avoid prolonged exposure to ultra-violet rays
-  Cover the tires when the vehicle is not in use



# RMA

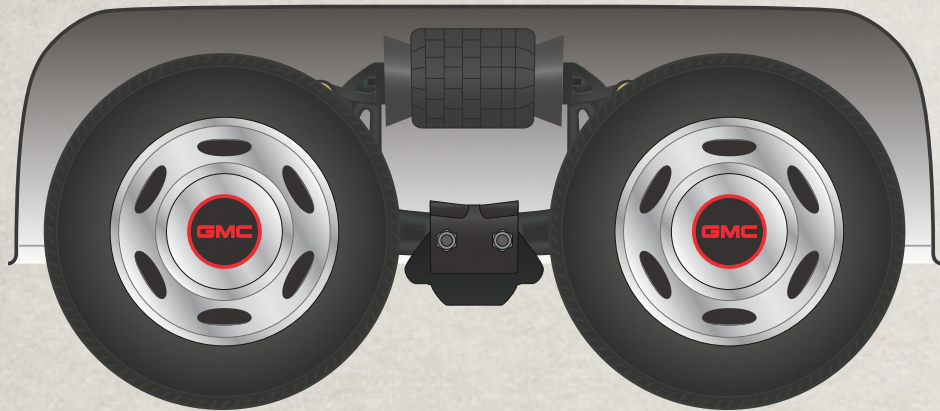
## RECOMMENDATIONS

-  Do not place tires in service if greater than six years (including spares)
-  Do not use tires if over ten years
-  Properly inflate and drive regularly
-  Keep tires clean and inspect monthly
-  Store properly
-  Proper alignment and balanced load enhances tire life

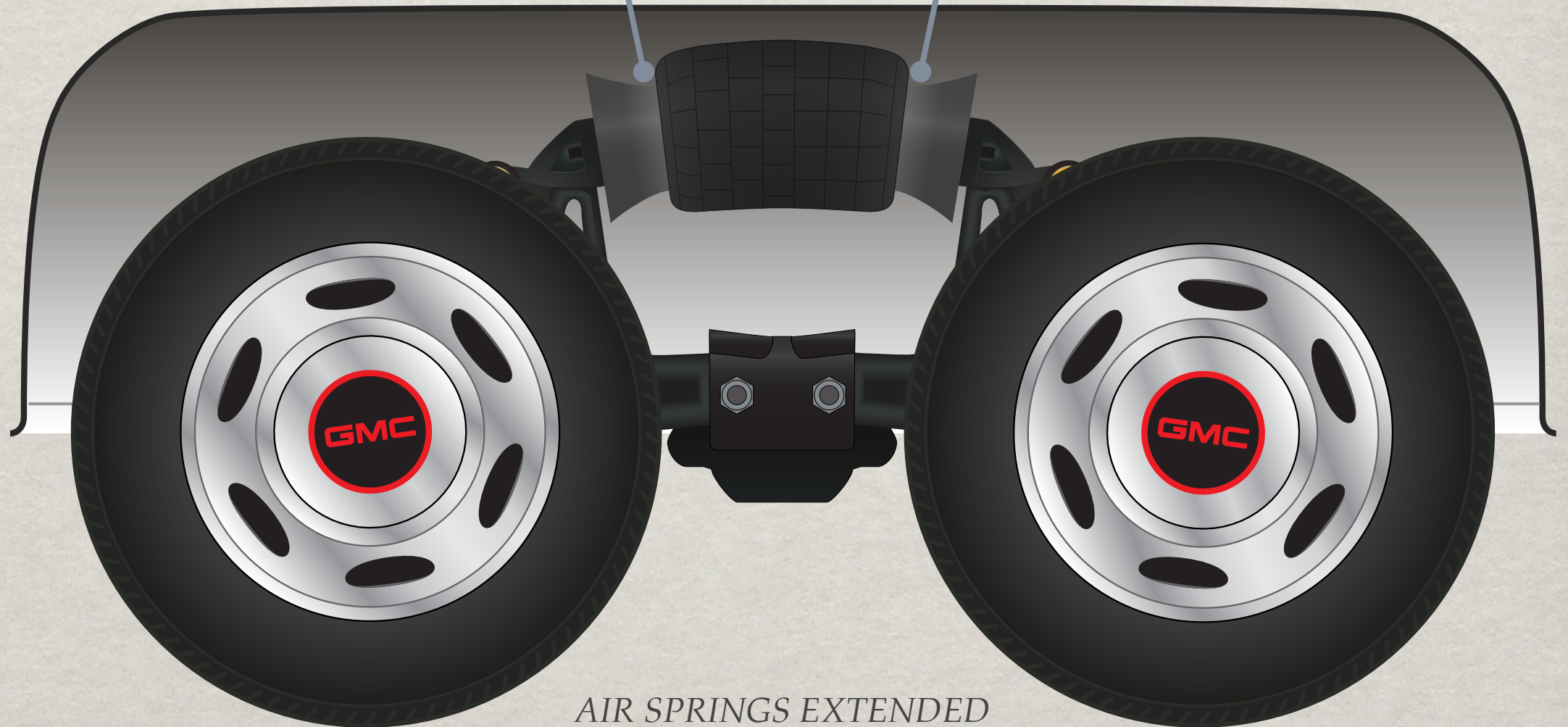


# EXTENDING BAG LIFE

*normal operating position*



- Road grit and dirt accumulate here
- Extend air springs greater than normal
- Wash with soap and flush with clean water
- Air dry and return to normal position
- Effective for cone and bag systems



*AIR SPRINGS EXTENDED*





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THAT'S ALL, FOLKS