



Tires 101



Why are tires important?

- Safety
- Performance
- Economy

Where do I find information about my car's specs?

- Your car will have stickers that tell you factory specs
 - Inside the driver's door jamb
 - Tire Pressure
 - VIN number
 - Seating Capacity
 - Vehicle Weight
 - Date of manufacture

Factory Sticker



TIRE AND LOADING INFORMATION

RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT

SEATING CAPACITY	TOTAL	FRONT	REAR
NOMBRE DE PLACES	TOTAL	AVANT	ARRIÈRE
	5	2	3

The combined weight of occupants and cargo should never exceed
Le poids total des occupants et du chargement ne doit jamais dépasser

	500 kg or	1102 lbs
	kg ou	lbs

TIRE PNEU	SIZE DIMENSIONS	COLD TIRE PRESSURE PRESSION PNEU A FROID
FRONT AVANT	295/35 R21	270 KPA, 39 PSI
REAR ARRIÈRE	295/35 R21	320 KPA, 46 PSI
SPARE DE SECOURS	195/65-19	350 KPA, 51 PSI

**SEE OWNER'S
MANUAL FOR
ADDITIONAL
INFORMATION**

**VOIR LE MANUEL
DE L'USAGER
POUR PLUS DE
RENSEIGNEMENTS**

7P5.010.813.S
WP1AC2A23ELA87453
Dr. Ing. h.c. F. Porsche AG
Printed in Germany

FLB USA CDN

Factory Sticker

MFD BY DR.ING H.C.F. PORSCHE AG 01/14
GVWR 6349 GAWR FRONT/REAR 3086/3384 LBS
THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S.FEDERAL MOTOR
VEHICLE SAFETY,BUMPER,AND THEFT PREVENTION STANDARDS
IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE
WP1AC2A23ELA87453 MPV



7P5.010.730.G

MADE IN GERMANY

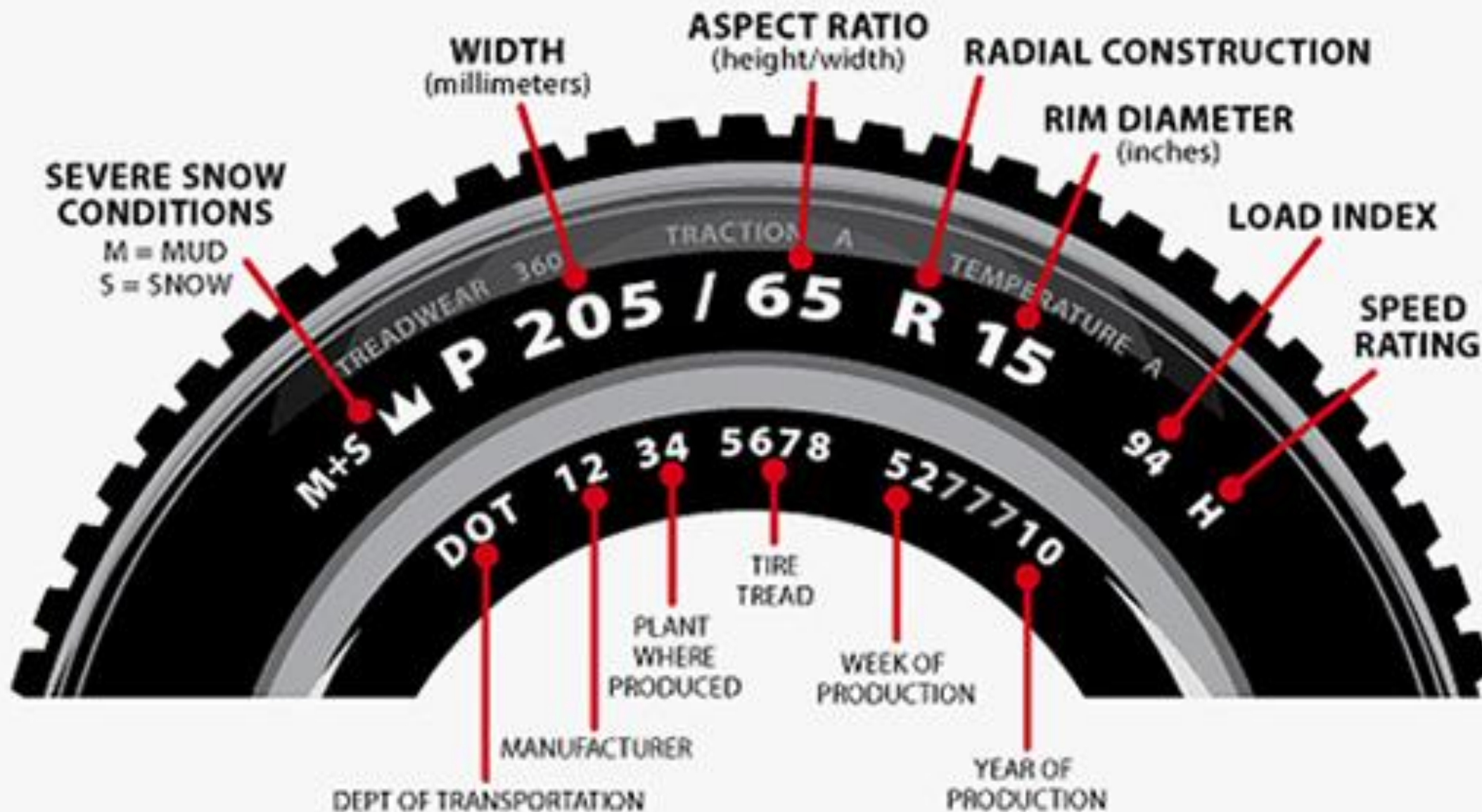
Where do I find information about my tires?

- All US tires have basic information written on the tire
 - On the sidewall of your tire

Lots of information written on the sidewall – Often Confusing

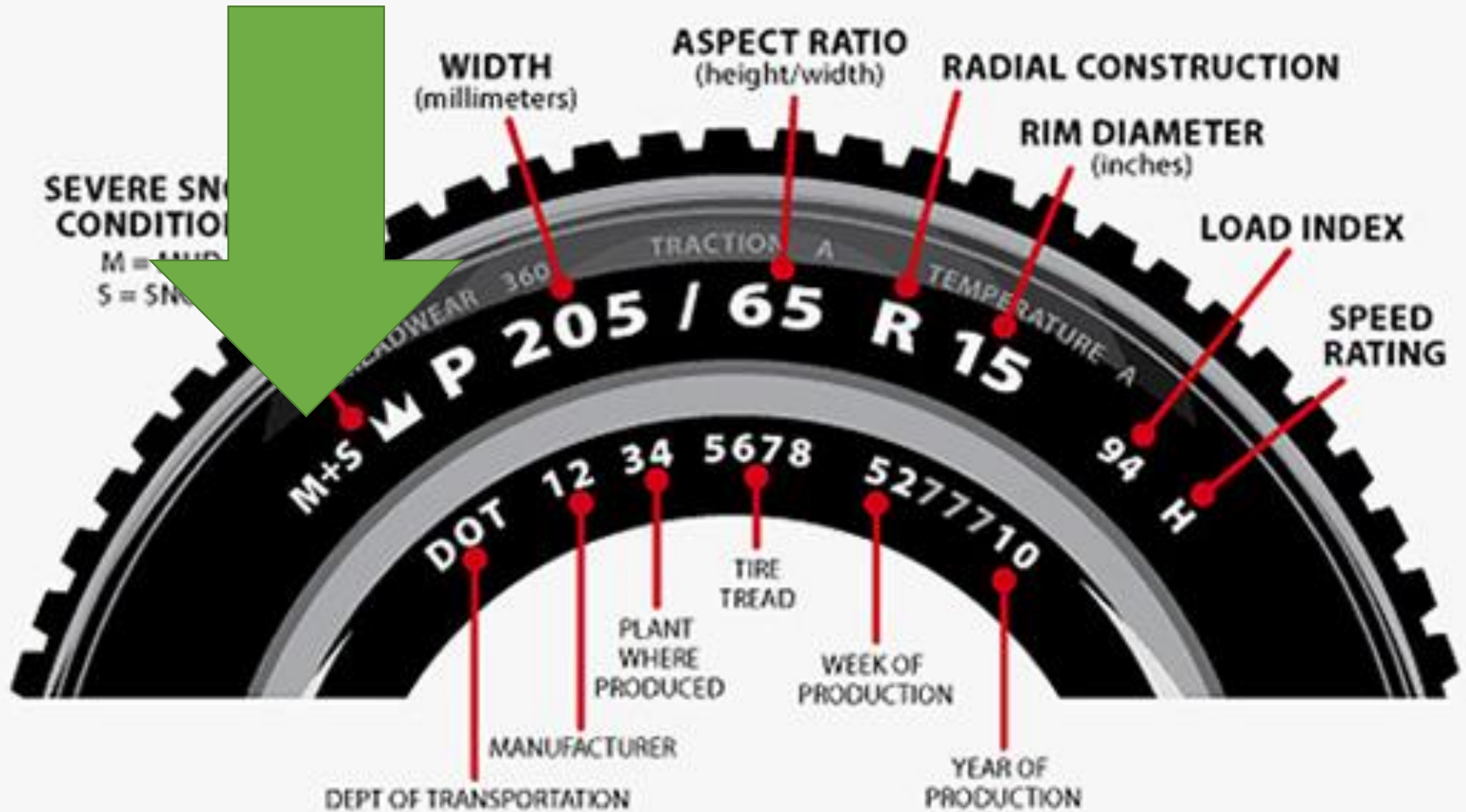
- Wheel Size
- Width
- Height
- Type construction
 - Radial
 - Bias
- Speed Rating
- Load Index
- Date Codes
- DOT
- Treadwear
- Manufacturer
- Extra Load
- LT
- Traction
- Temperature
- Tread pattern

This is what you see on your sidewall



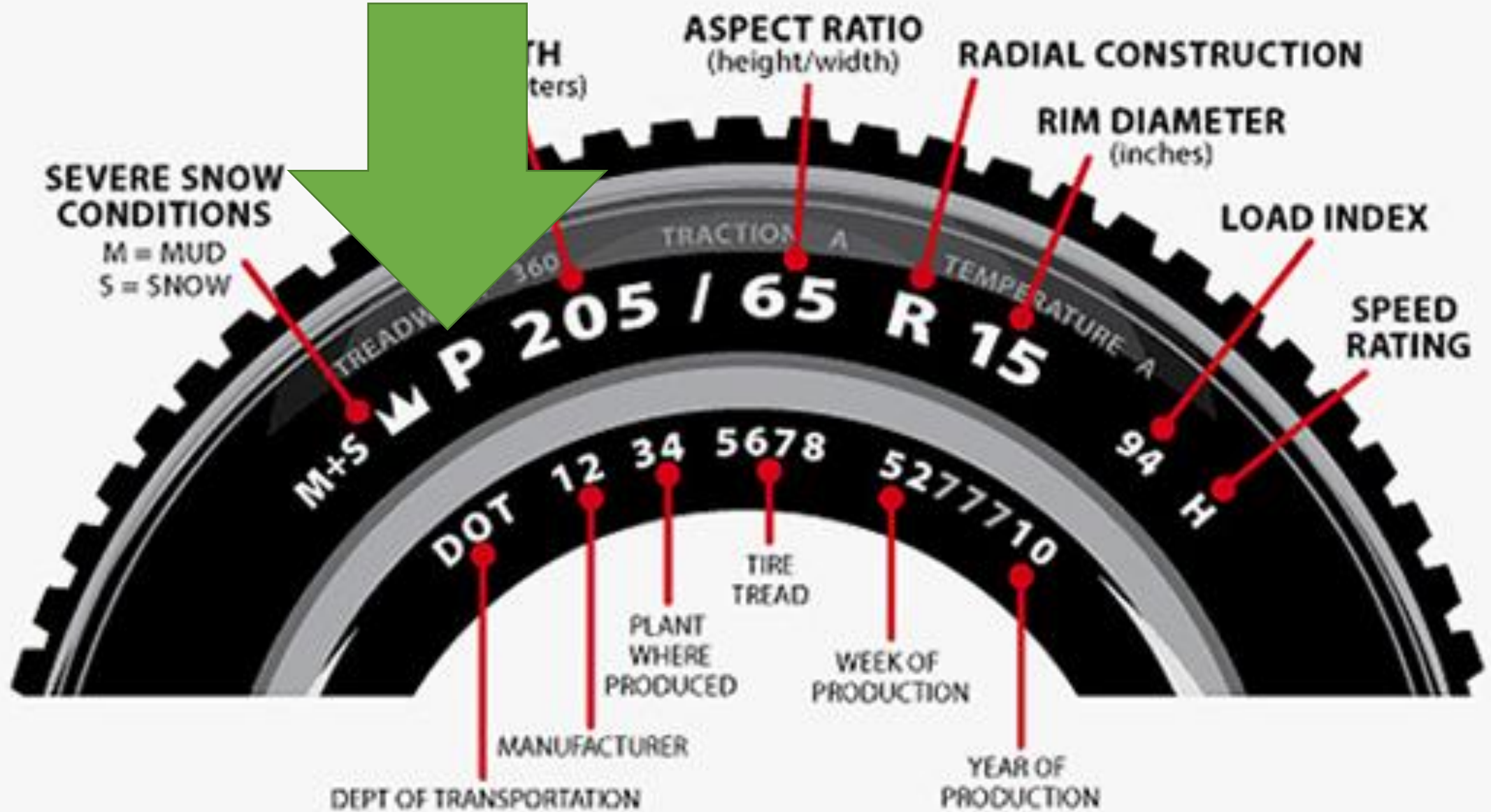
Mud and Snow

- M = Mud
- S = Snow
- M+S = Mud and Snow



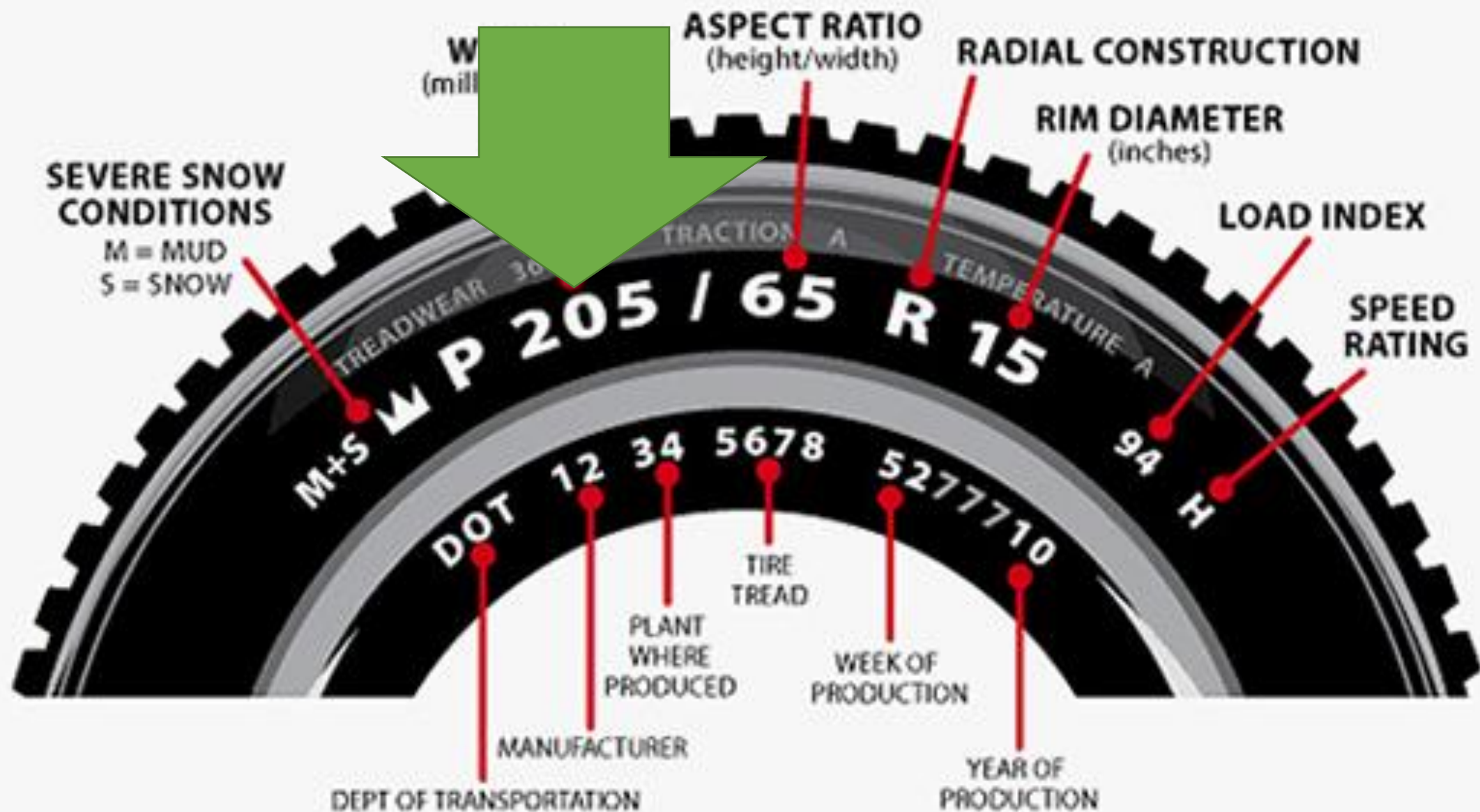
Vehicle Type

- “P” for Passenger; or,
- “LT” for Light Truck



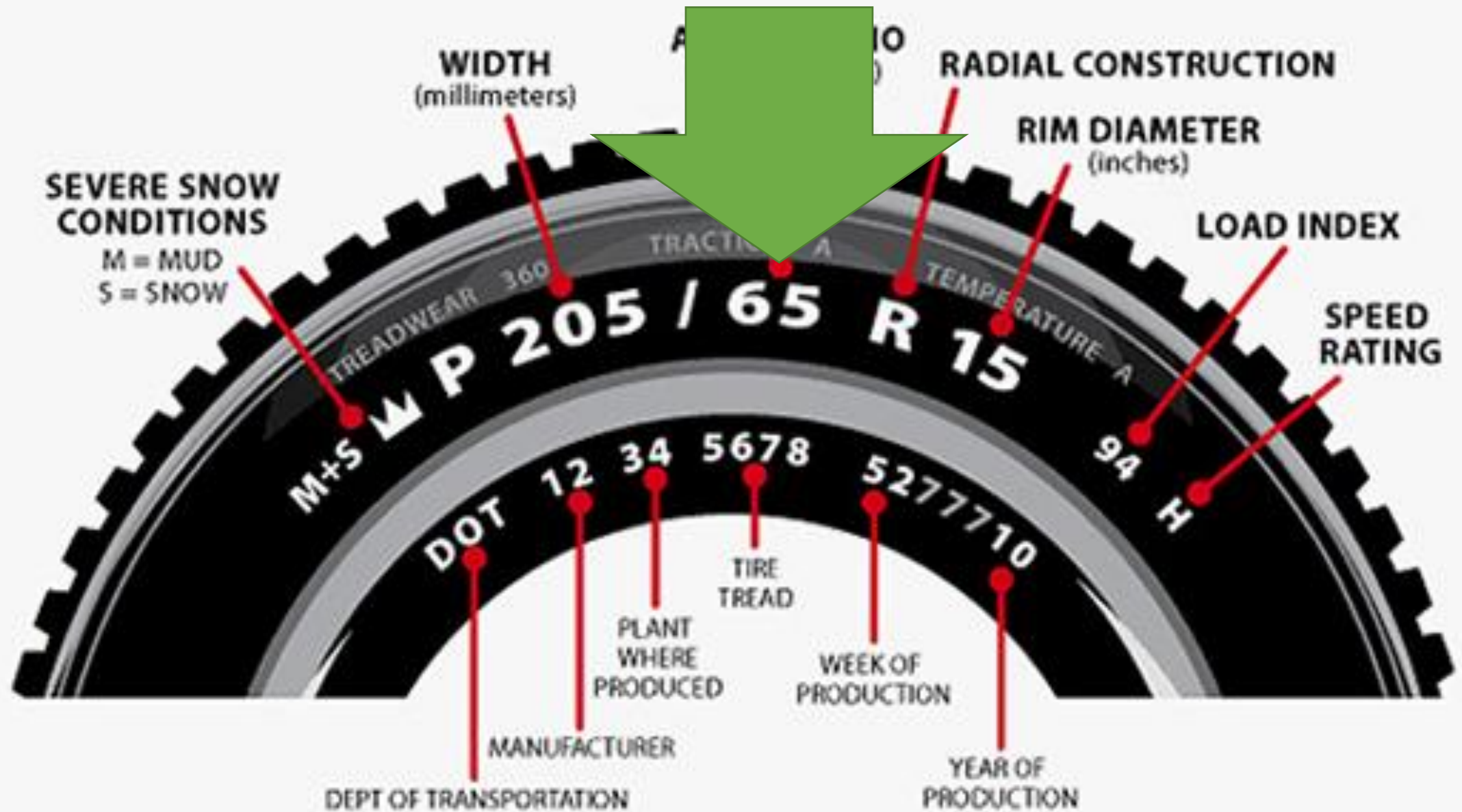
Tire Size

- Width
 - In mm
 - Typical 911 = 245 Front, 305 Rear



Tire Size

- Height / Aspect Ratio
 - Percentage of Width
 - Typical 911 = 35 Front, 30 Rear
 - So 35% of front tire width is the height of the front sidewall; and.
 - 30% of rear tire width is height of rear sidewall

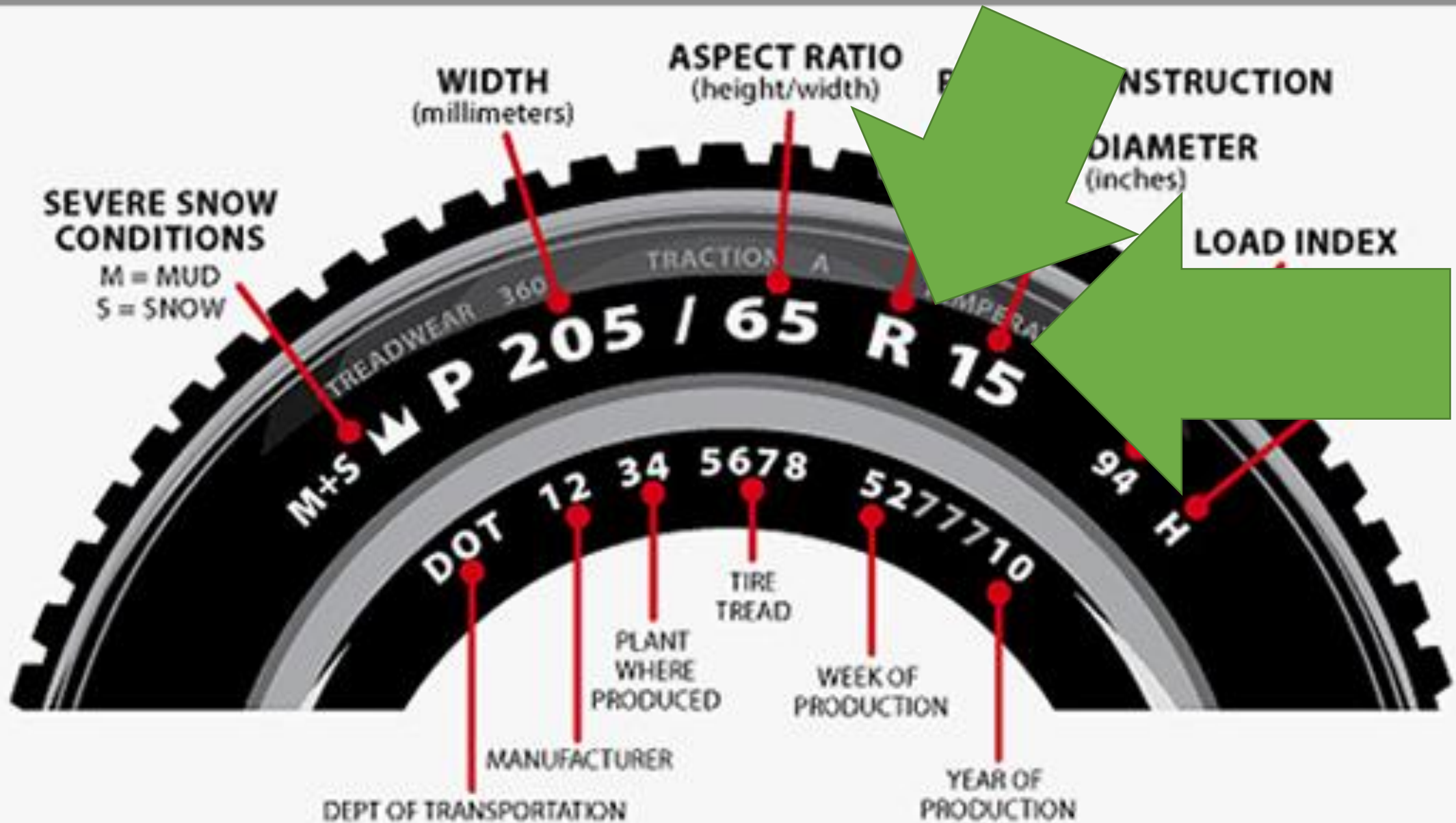


Type of Construction

- Radial
- Bias

Rim Diameter

- In inches
- Specified by manufacturer



Load Index

- Tells you how much weight the tire will support
- Uniform rating
 - single tire
- Capacity is in pounds per wheel
- Multiply by 4 for entire car

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MPV



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Load Index

Most Porsche Tires are 94

Base 911

Curb weight - 3,354 lb

Gross Vehicle Weight Rating (GVWR)
4,321 lb

Maximum load - 967 lb

Minimum Load Index - 82

Base Cayenne

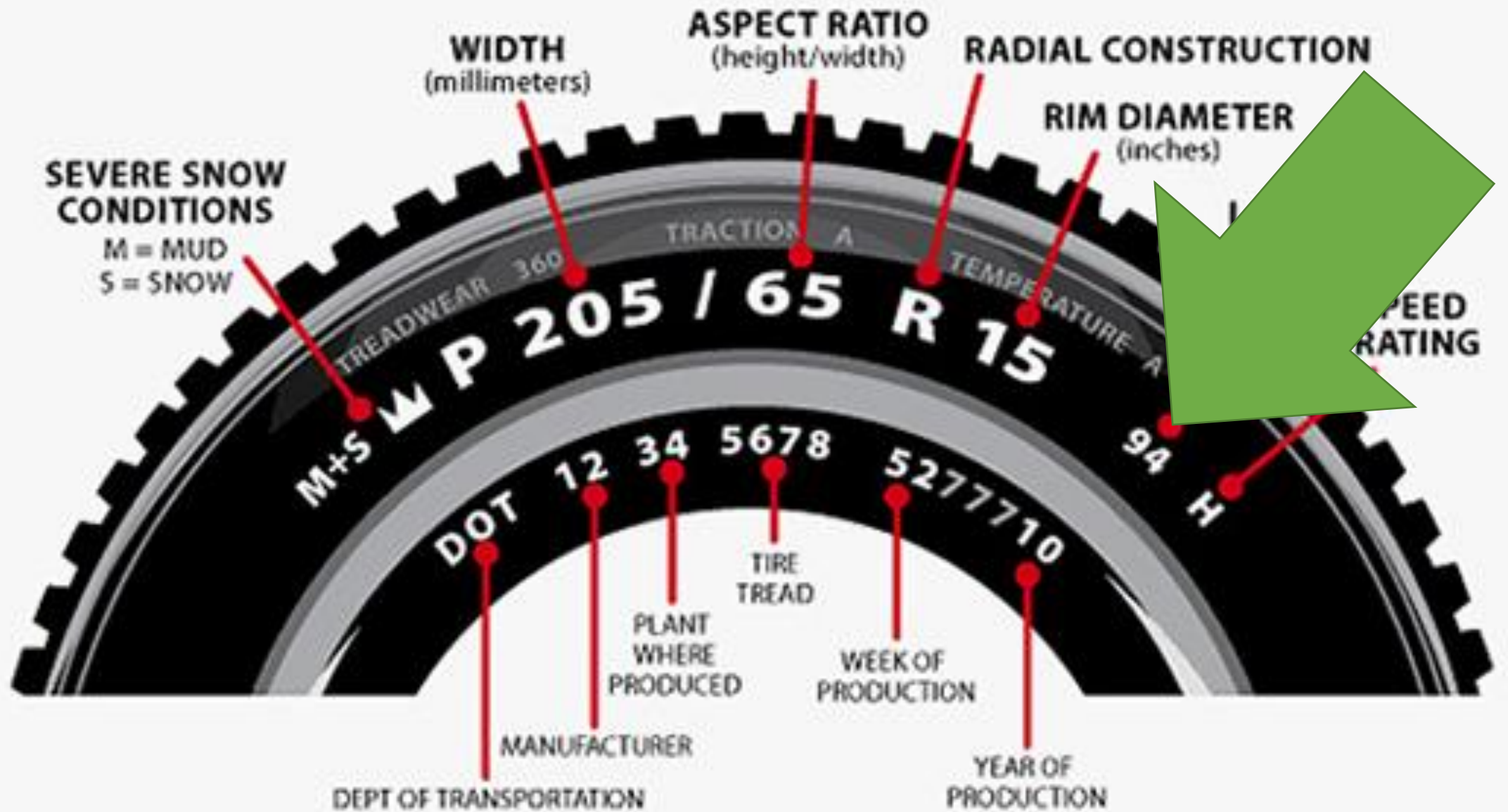
Curb weight - 4,582 lb

Gross Vehicle Weight Rating (GVWR)
6,239 lb

Maximum load - 1,657 lb

Minimum Load Index - 96

Load Index	Pounds	Kilograms	Load Index	Pounds	Kilograms	Load Index	Pounds	Kilograms
70	739 lbs	335 kg	89	1,279 lbs	580 kg	108	2,205 lbs	1,000 kg
71	761 lbs	345 kg	90	1,323 lbs	600 kg	109	2,271 lbs	1,030 kg
72	783 lbs	355 kg	91	1,356 lbs	615 kg	110	2,337 lbs	1,060 kg
73	805 lbs	365 kg	92	1,389 lbs	630 kg	111	2,403 lbs	1,090 kg
74	827 lbs	375 kg	93	1,433 lbs	650 kg	112	2,469 lbs	1,120 kg
75	853 lbs	387 kg	94	1,477 lbs	670 kg	113	2,535 lbs	1,150 kg
76	882 lbs	400 kg	95	1,521 lbs	690 kg	114	2,601 lbs	1,180 kg
77	908 lbs	412 kg	96	1,565 lbs	710 kg	115	2,679 lbs	1,215 kg
78	937 lbs	425 kg	97	1,609 lbs	730 kg	116	2,756 lbs	1,250 kg
79	963 lbs	437 kg	98	1,653 lbs	750 kg	117	2,833 lbs	1,285 kg
80	992 lbs	450 kg	99	1,709 lbs	775 kg	118	2,910 lbs	1,320 kg
81	1,019 lbs	462 kg	100	1,764 lbs	800 kg	119	2,998 lbs	1,360 kg
82	1,047 lbs	475 kg	101	1,819 lbs	825 kg	120	3,086 lbs	1,400 kg
83	1,074 lbs	487 kg	102	1,874 lbs	850 kg	121	3,197 lbs	1,450 kg
84	1,102 lbs	500 kg	103	1,929 lbs	875 kg	122	3,307 lbs	1,500 kg
85	1,135 lbs	515 kg	104	1,984 lbs	900 kg	123	3,417 lbs	1,550 kg
86	1,168 lbs	530 kg	105	2,039 lbs	925 kg	124	3,527 lbs	1,600 kg
87	1,201 lbs	545 kg	106	2,094 lbs	950 kg	125	3,638 lbs	1,650 kg
88	1,235 lbs	560 kg	107	2,149 lbs	975 kg	126	3,748 lbs	1,700 kg



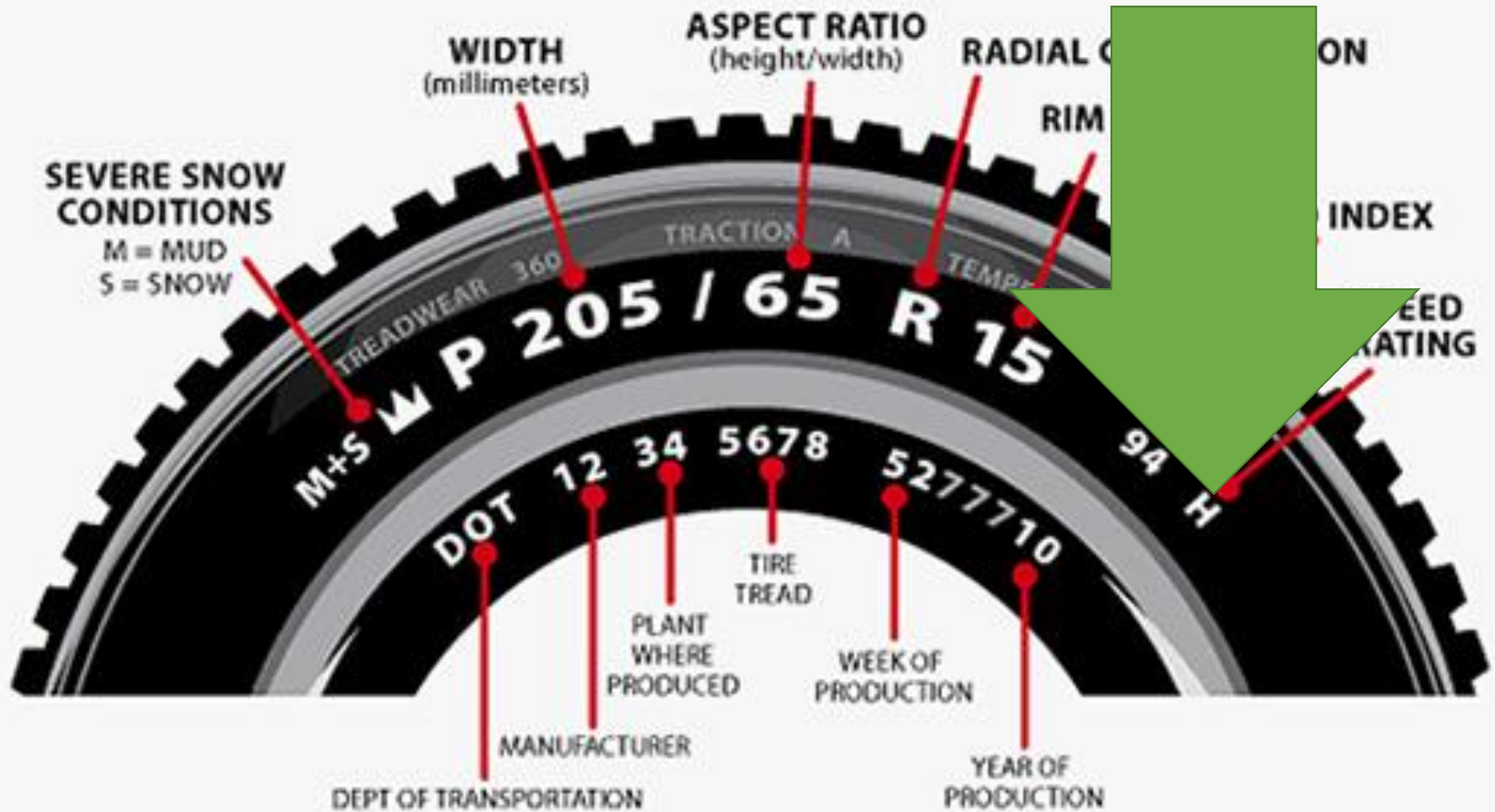
Speed Rating

- Standardized measurement
- Maximum safe speed for this tire

Speed Ratings

- Y is Porsche standard
- Z Rating no longer used
 - Sometimes mentioned

Speed Rating	Miles/Hour	KM/Hour	Vehicle Type
L	75 mph	120 km/h	Off-road & light truck tires
M	81 mph	130 km/h	Spare tires
N	87 mph	140 km/h	Spare tires
P	93 mph	150 km/h	
Q	99 mph	160 km/h	Studless & studdable winter tires
R	106 mph	170 km/h	Heavy-duty light truck tires
S	112 mph	180 km/h	Family sedans & vans
T	118 mph	190 km/h	Family sedans & vans
U	124 mph	200 km/h	Sedans & coupes
H	130 mph	210 km/h	Sport sedans & coupes
V	149 mph	240 km/h	Sport sedans, coupes, & sports cars
Z	149+ mph	240+ km/h	High-performance vehicle tires
W	168 mph	270 km/h	Exotic sports cars
Y	186 mph	300 km/h	Exotic sports cars

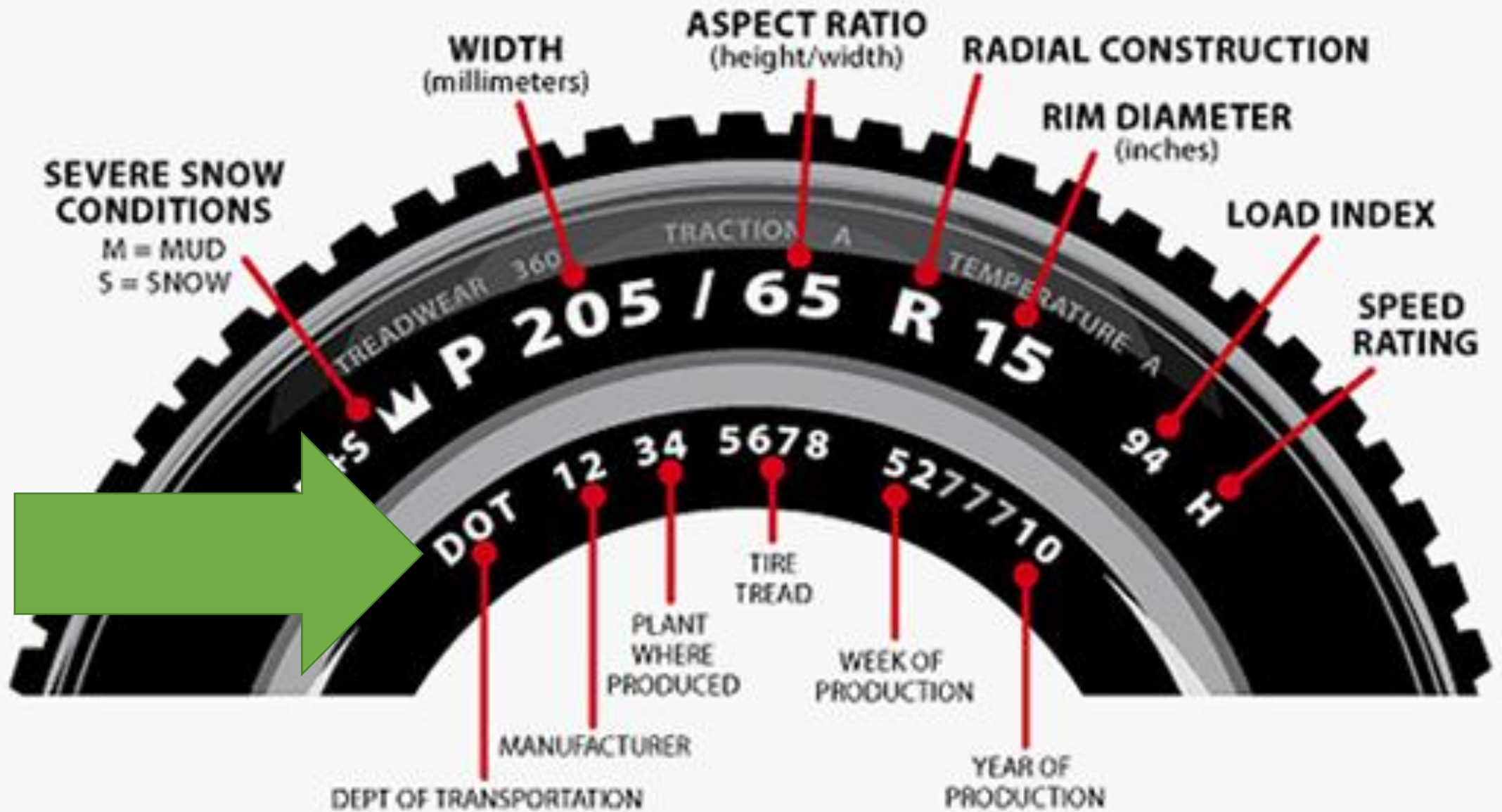


DOT Number

- 4 sections
 - 1st 2 = Manufacturer
 - 2nd 2 = Plant where produced
 - Following 2 or 4 Manufacturer's tread
 - Last 4 digits. Highlighted, show week and year of manufacture
- Date of production is part of the DOT number
 - First 2 numbers are the week of manufacture
 - Last 2 numbers are the year

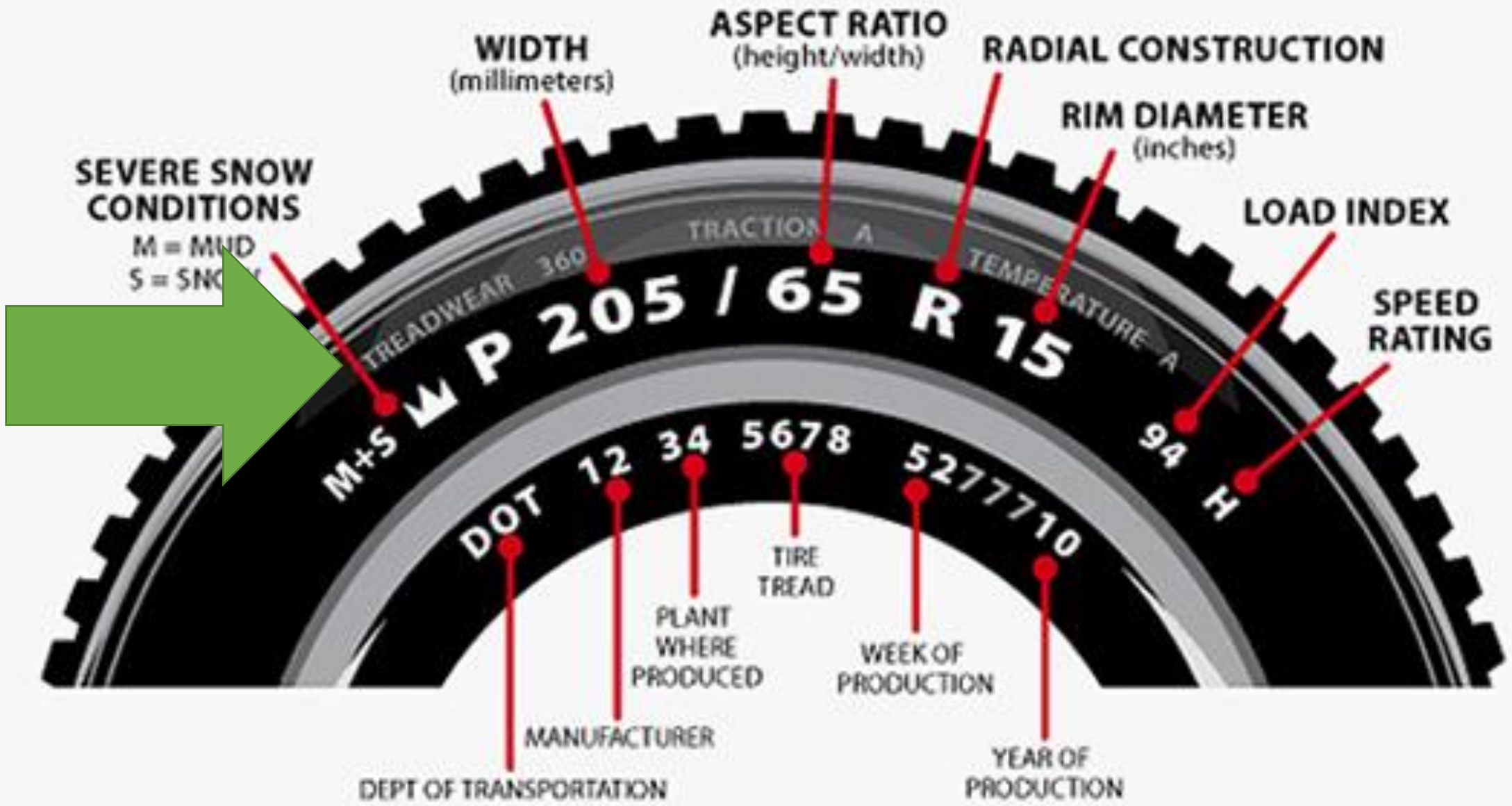
A primary cause of tire failure is old age. Lifespan is generally rated at 5-7 years, but the FL sunshine shortens tire life. You can have good tread but the chemical breakdown of the tire will cause failure.





Treadwear

- Rated by manufacturer so not 100% uniform
- High treadwear numbers will go more miles/less grip
 - 300 +
 - Michelin 4S
 - Pirelli P Zero
- Low numbers for more grip, more miles
 - 60 Trafeo
 - 80 DunlapMaxx
 - 140 Michelin Sport Cup 2



Other data

- Max Load
- Extra Load – same tire model but can take more weight & pressure
- Max Temperature
- Traction Rating – highest AA
- Temperature Rating – highest is AA
- Max Pressure – not where you set your tires. Inside door for sticker
 - Cold measurement only
 - Add 7 lbs for a “HOT” tire

When to Replace

- Wear
 - Uneven wear
 - Excessive wear
 - Wear bars show safety limit is reached
 - Heat Cycles – High Performance Driving
- Age
 - 5 year old is about max in SWFL
- Sidewall puncture

Wear Bars

- Easy visible inspection
- Shows treadwear
- Indicator when your tread is worn out and you need new tires





Run Flat

- Convenient
- 2 types
 - Traditional reinforced sidewalls
 - New self sealing
- Performance
 - More weight
 - Less flexibility
 - Minimum impact for most driving

Flat Tire Repair

- NEVER repair a sidewall!
- Plug
 - Only if puncture is on tread
 - Thumbwidth from edge of tread
- Patch
 - Only if puncture is on a tread
 - Stronger than a plug
 - Preserves the integrity of the belt weave
- OEM Repair kit
 - In Frunk
 - 12v Compressor & Chemical Sealer

Tire Maintenance

- Pressure
 - Where to find
 - Temperature fluctuations
 - Check regularly



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SEATING CAPACITY	TOTAL	FRONT	REAR
NOMBRE DE PLACES	TOTAL 5	AVANT 2	ARRIÈRE 3

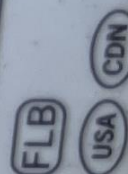
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Tire Maintenance

- Balance
 - First place to check on vibration
 - **Demo tire balance process**

Tire Maintenance

- Alignment
 - Vibration
 - Uneven rapid wear
 - “Cupping”
 - Steering pulls to one side
- **Demo Alignment process**