

WHEEL & TIRE

AX04-001

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WHEEL AND TIRE

DATA AND SPECIFICATIONS

EN08Z0904I200001

The figures given in the table are based on the recommendation by European Tire and Rim Technical Organization. (E.T.R.T.O.), Japan Automobile Tire Manufacturers' Association (J.A.T.M.A.) and Australian Design Rule (ADR).

*(1). Tire radius given is dynamic effective radius for single tire, for dual tires, add 1.0 mm {0.039 in.} to the figure given.

*(2). The max. air pressure and max. load for New Zealand.

*(3). Industrial tire, Max. speed 40km/h {25 mile/h}, tire radius is static loaded radius.

1. Diagonal tires

Tire size	Max. air pressure kPa {kgf/cm ² , lbf/in. ² }		Allowable max. load kg {lb}		*(1) Tire radius mm {in.}	Rim size
			Single	Dual		
10.00-20-16PR	ETRTO	750 {7.65, 109}	3,000 {6,614}	2,725 {6,008}	505 {19.88}	20 x 7.00T
11.00-20-14PR	JATMA	675 {6.75, 98}	2,840 {6,261}	2,670 {5,886}	519 {20.43}	20 x 7.50V
11.00-20-16PR	JATMA	725 {7.25, 105}	3,100 {6,834}	2,785 {6,140}		
11.00-20-16PR	JATMA	700 {7.00, 102}	3,115 {6,867}	2,965 {6,537}	538 {21.18}	20 x 8.50V
*(3) 12.00-20-16PR	JATMA	700 {7.00, 102}	4,605 {10,152}		*(3) 512 {20.16}	24 x 8.50V
12.00-24-18PR	JATMA	700 {7.00, 102}	3,660 {8,069}	3,485 {7,683}	592 {23.31}	24 x 8.50V

2. Radial tires (with tube)

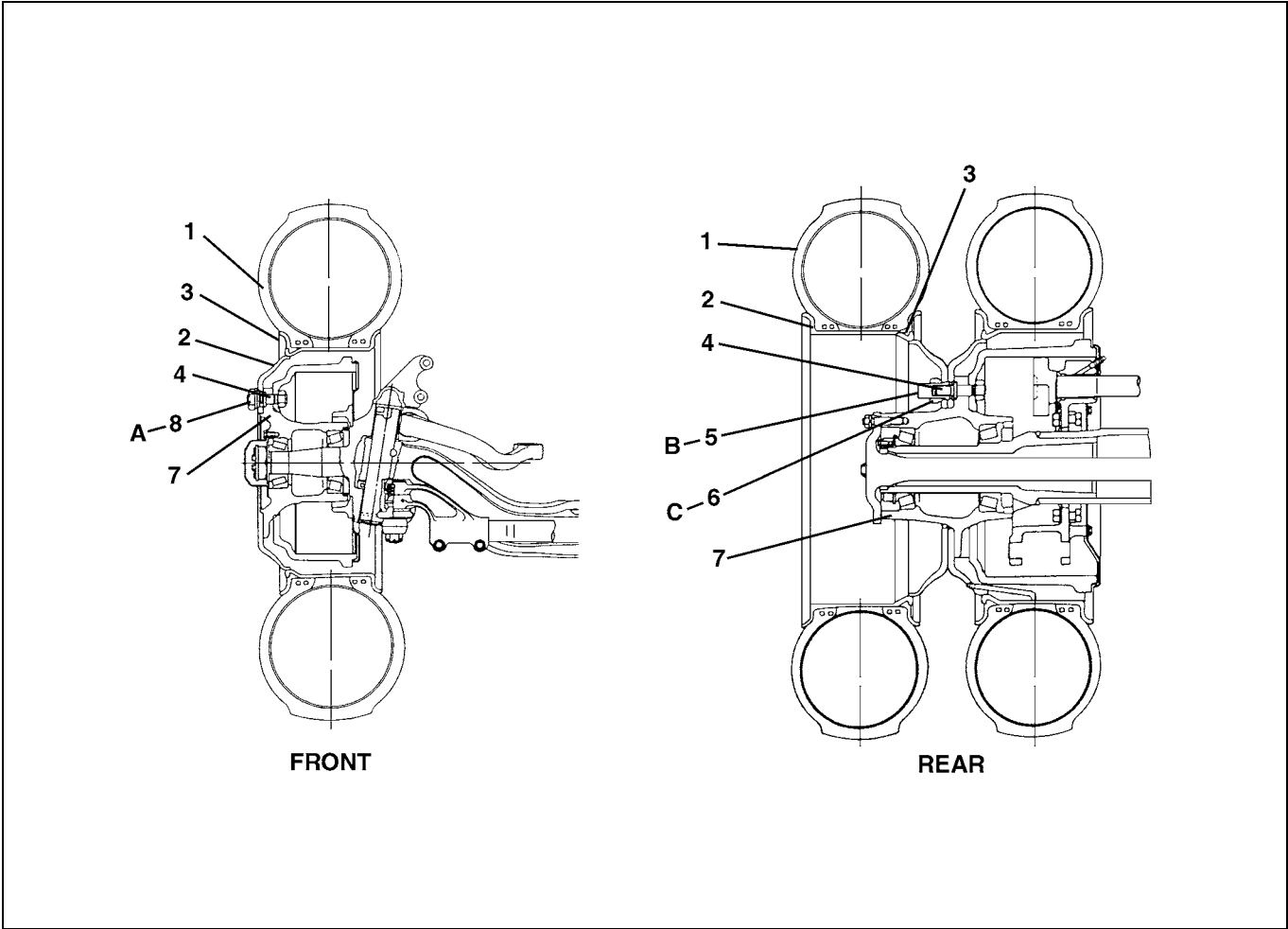
Tire size	Max. air pressure kPa {kgf/cm ² , lbf/in. ² }		Allowable max. load kg {lb}		*(1) Tire radius mm {in.}	Rim size
			Single	Dual		
11.00R-20-14PR	JATMA	725 {7.25, 105}	2,840 {6,261}	2,670 {5,886}	522 {20.55}	20 x 7.50V
11.00R-20-16PR	JATMA	775 {7.75, 112}	3,100 {6,834}	2,785 {6,140}		
12.00R-24-18PR	JATMA	750 {7.50, 109}	3,660 {8,069}	3,485 {7,683}	593 {23.35}	24 x 8.50V
12.00R-24-18PR	ETRTO	775 {7.90, 112}	4,000 {8,818}	3,650 {8,047}		
12.00R-24-160/156	ETRTO	850 {8.67, 123}	4,500 {9,921}	4,000 {8,818}		

3. Radial tires (with tubeless)

Tire size	Max. air pressure kPa {kgf/cm ² , lbf/in. ² }		Allowable max. load kg {lb}		*(1) Tire radius mm {in.}	Rim size
			Single	Dual		
11R22.5-16PR	JATMA	800 {8.00, 116}	3,000 {6,614}	2,725 {6,008}	507 {19.96}	22.5 x 7.50 22.5 x 8.25
11R22.5 148/145	ETRTO	850 {8.67, 123}	3,150 {6,944}	2,900 {6,393}		22.5 x 8.25
11R22.5 148/145	ADR	825 {8.41, 120}	3,000 {6,614}	2,725 {6,008}		
12R22.5-16PR	JATMA	800 {8.00, 116}	3,250 {7,165}	2,900 {6,393}	522 {20.55}	22.5 x 8.25
12R22.5 152/148	ETRTO	850 {8.67, 123}	3,350 {7,826}	3,150 {6,944}		
275/70R22.5 148/145J	JATMA	900 {9.00, 131}	3,150 {6,944}	2,900 {6,393}	464 {18.27}	22.5 x 8.25
*(2) 275/70R22.5 148/145J	JATMA	825 {8.25, 120}	2,995 {6,603}	2,755 {6,074}		
275/70R22.5 148/145	ETRTO	900 {9.18, 131}	3,150 {6,944}	2,900 {6,393}		
*(2) 275/70R22.5 148/145	ETRTO	825 {8.25, 120}	2,995 {6,603}	2,755 {6,074}		
295/80R22.5 153/150J	JATMA	900 {9.00, 131}	3,650 {8,047}	3,350 {7,385}	504 {19.84}	22.5 x 8.25
295/80R22.5 152/148	ETRTO	850 {8.67, 123}	3,550 {7,826}	3,150 {6,944}		
295/80R22.5 152/148	ADR	825 {8.41, 120}	3,250 {7,165}	3,000 {6,614}		
315/80R22.5 156/153J	JATMA	900 {9.00, 131}	4,000 {8,818}	3,650 {8,047}	519 {20.43}	22.5 x 9.00
315/80R22.5 154/150	ETRTO	825 {8.41, 120}	3,750 {8,267}	3,350 {7,385}		
315/80R22.5 156/150	ETRTO	850 {8.67, 123}	4,000 {8,818}	3,350 {7,385}		
385/65R22.5	ETRTO	900 {9.18, 131}	4,500 {9,921}	—	517 {20.35}	22.5 x 11.75

DESCRIPTION

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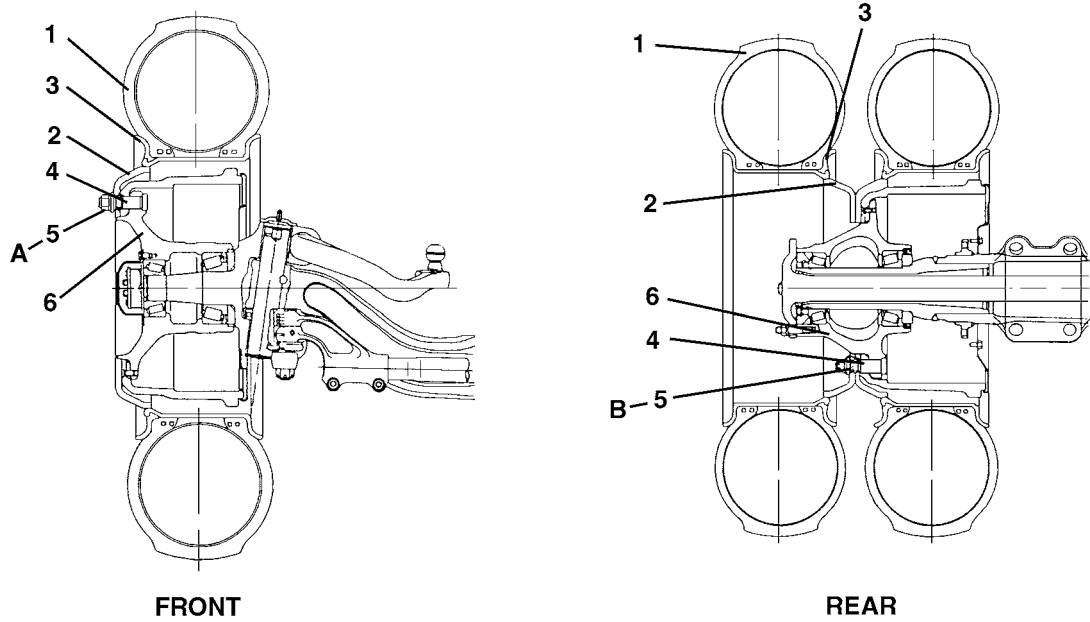


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SAE AND JIS TYPE

1	Tire	5	Inner wheel nut
2	Disc wheel	6	Outer wheel nut
3	Side ring	7	Hub
4	Hub bolt	8	Wheel nut

	Hub bolt diameter mm {in.}	Tightening torque N·m {kgf·cm, lbf·ft}
A	20 {0.787}	392.27-470.71 {4,000-4,800, 290-347}
	18 {0.709}	235.36-294.19 {2,400-3,000, 174-216}
B, C	20 {0.787}	392.27-470.71 {4,000-4,800, 290-347}
	18 {0.709}	235.36-294.19 {2,400-3,000, 174-216}

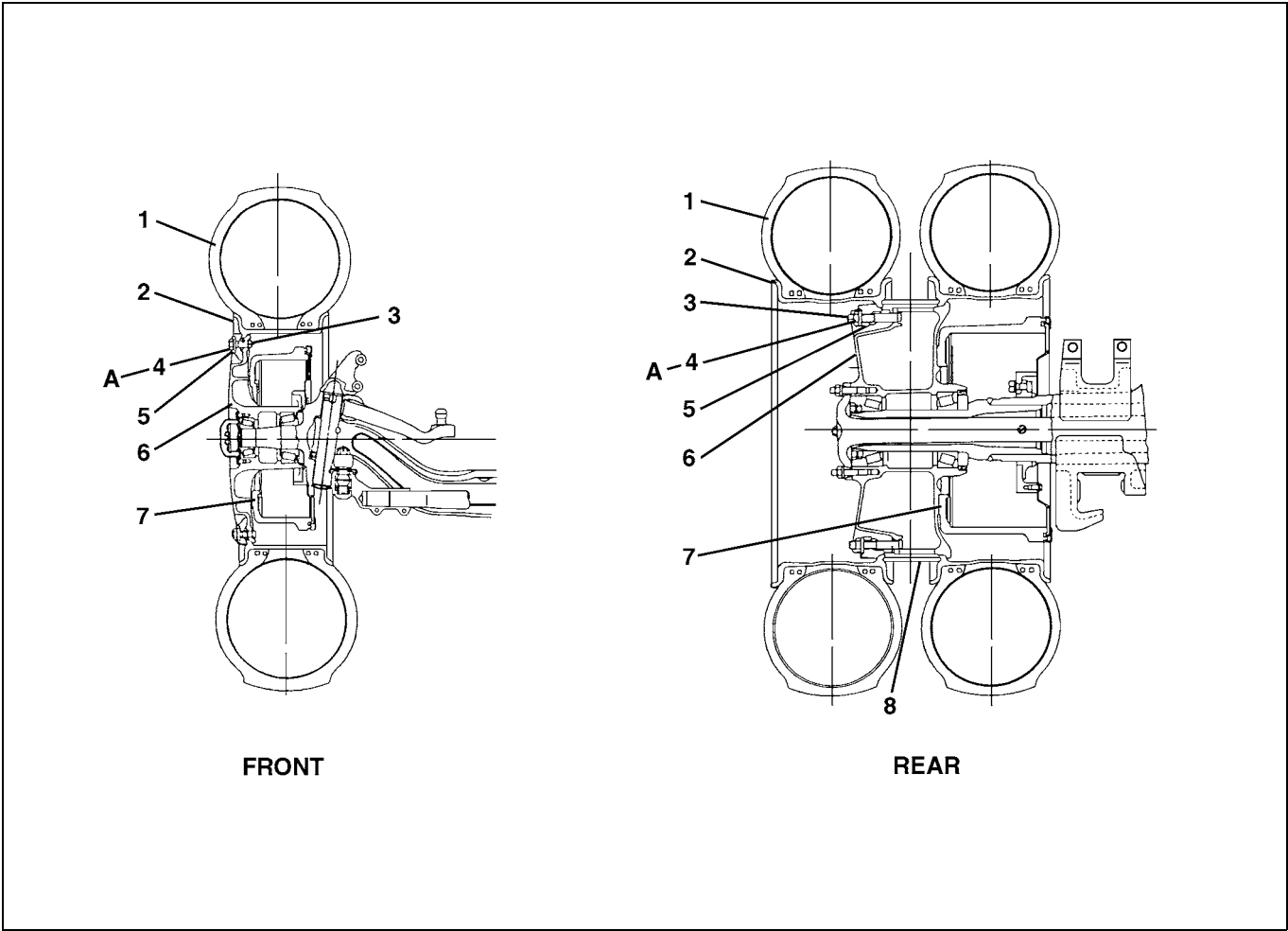


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DIN AND ISO TYPE

1	Tire	4	Hub bolt
2	Disc wheel	5	Wheel nut
3	Side ring	6	Hub

	Type	Tightening torque N·m {kgf·cm, lbf·ft}
A	DIN	490.34-588.39 {5,000-6,000, 362-433}
	ISO	490-539 {5,000-5,500, 362-397}
B	DIN	490.34-588.39 {5,000-6,000, 362-433}
	ISO	490-539 {5,000-5,500, 362-397}

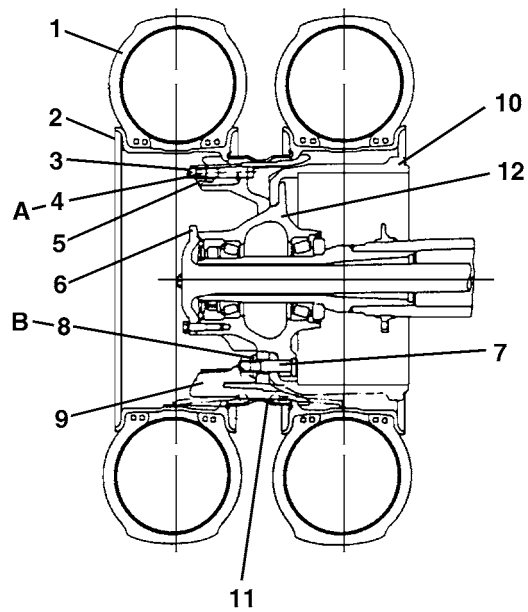


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SPOKE WHEEL TYPE

1	Tire	5	Clamp
2	Rim	6	Spoke wheel
3	Clamp bolt	7	Brake drum
4	Clamp nut	8	Band spacer

	Tightening torque N·m {kgf·cm, lbf·ft}
A	265-295 {2,700-3,000, 196-216}

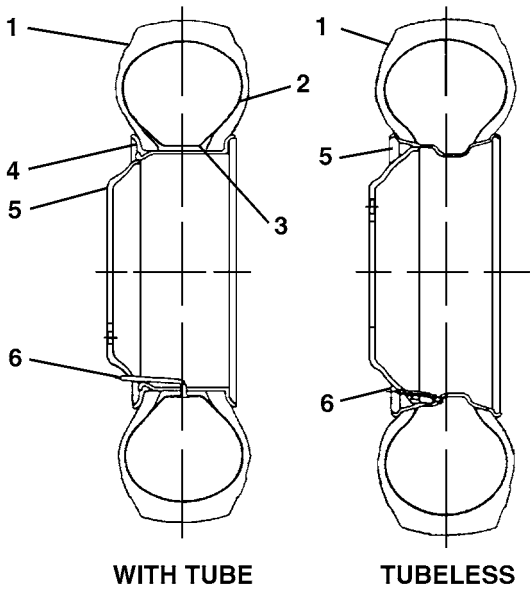


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ADAPTER TYPE SPOKE WHEEL (Only for rear)

1	Tire	7	Hub bolt
2	Rim	8	Hub nut
3	Clamp bolt	9	Adapter
4	Clamp nut	10	Brake drum
5	Clamp	11	Band spacer
6	Axle shaft	12	Hub

	Tightening torque N·m {kgf·cm, lbf·ft}
A	294.20-323.61 {3,000-3,300, 217-238}
B	490.34-588.39 {5,000-6,000, 362-433}



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WHEEL AND TIRE

1	Tire	4	Side ring
2	Tube	5	Disc wheel
3	Flap	6	Valve

TROUBLESHOOTING

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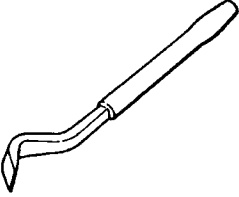
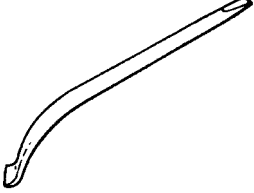
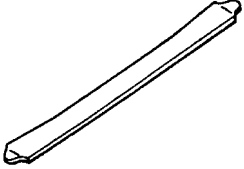
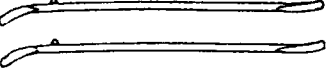
Symptom	Possible cause	Remedy/Prevention
Excessive wear on edges of tread	Under inflated tires	Properly inflate with the recommended pressure.
	Vehicle overloading	Correct as required by Factory spec.
	High speed cornering	Correct as required by Factory spec.
	Incorrect wheel alignment	Set to the correct specifications.
Tires show excessive wear in center of tread	Tires overinflated	Properly inflate with the recommended pressure.
Excessive tire wear	Improper tire pressure	Properly inflate with the recommended pressure.
	Incorrect tire wheel usage	Install the correct tire wheel combination.
	Bent wheel	Repair or replace.
	Defective shock absorbers	Repair or replace.
	Front end out of alignment	Align front end.
	Loose, worn or damaged steering linkage, joints, suspension components, bushing or ball joints	Inspect, repair or replace as required
Wheel hopping (vehicle vibration and rough steering) (Disc wheels)	Rocks or debris wedged between dual disc wheels	Remove the rocks and the debris.
	Out-of-balance tire and/or hub and drum	Determine the out-of-balance component and balance or replace.
	Improper positioning of the side ring split	Reassemble with ring split, opposite (180 degrees) to the valve opening to improve the balance.
Wheel hopping (vehicle vibration and rough steering) (Vehicle)	Loose or worn drive line or suspension	Identify the location of vibration carefully. Then repair or replace the loosened or worn parts. (Refer to PROPELLER SHAFT for vehicle vibration.)
Wobbling (vehicle vibration and rough steering) (Disc wheels)	Bent or distorted due to the overloading or improper handling	Replace the wheel.
	Loose mountings, damaged studs, wheel nuts, enlarged stud holes, worn or broken hub face, or foreign material on mounting surfaces	Replace worn or damaged parts. Clean mounting surfaces.
Wobbling (vehicle vibration and rough steering) (Vehicle)	Improper alignment	Have vehicle aligned.
	Loose, worn or broken suspension parts	Repair or replace.
Cracked or broken wheel discs (cracks develop in the wheel disc from hand hole to hand hole, from hand hole to rim, or from hand hole to stud hole.)	Metal fatigue resulting from overloading	Replace wheel.

Symptom	Possible cause	Remedy/Prevention
Damaged hub bolt holes (hub bolt holes become worn, elongated or deformed, metal builds up around hub bolt hole edges, cracks develop from hub bolt hole to hub bolt hole.)	Loose wheel mounting	• Replace wheel and check the installation of correct hub bolts and nuts. • Check the cracked or broken hub bolt-replace. • Check the worn hub face-replace. • Check the broken or cracked hub-replace. • Clean mounting surfaces (Retighten the wheel nuts periodically.) • Rust streaks fanning out from hub bolt holes: indicates that the wheel nuts are or have been loosen.
Tire slippage on rim (Disc wheels)	Improper storage or operating conditions	Correct as required.
	Poor maintenance	Follow the proper maintenance procedures.
	Rust, corrosion or bead seating	Correct as required.
	Loss of pressure	Follow the proper maintenance procedures.
Tire mounting difficulties (Wheel rims)	Mismatched tire and rim sizes	Correct as required.
	Defective or mismatched rings for the rim	Correct as required.
	Tires overinflated	Properly inflate with the recommended pressure.
	Corrosion and dirt	Correct as required.
Loose inner wheel	Excessive hub bolt stand out from the mounting face of hub allowing the wheel nut to bottom out	Replace with the proper length hub bolt.
	Improper torque	Follow the recommended torque procedure.
	Wrong inner nut	Use correct inner nuts.
Broken hub bolts	Loose wheel nuts	Replace the hub bolt and follow the proper torque procedures.
	Overloading	Replace the hub bolt.
Stripped threads	Excessive clamp load	Replace hub bolt and follow the proper torque procedures.
Rust streaks from hub bolt holes	Loose wheel nuts	Check complete assembly, replace damaged parts and follow the proper torque procedures.
Damaged inner or outer wheel nuts	Loose wheel assembly	Replace wheel nuts. Check the proper torque procedures.
Frozen inner or outer wheel nuts	Corrosion or damage	Replace wheel nuts and hub bolts.

SPECIAL TOOL

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Prior to starting a wheel and tire overhaul, it is necessary to have these special tools.

Illustration	Part number	Tool name	Remarks
	09672-1010	LEVER	
	09672-1020	LEVER	
	09672-1040	LEVER	
	09609-1210	LEVER	
	09609-1220	RUBBER HUMMER	

PRECAUTIONS

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CAUTION

Failure to comply with the following procedures may result in faulty positioning of the tire and/or rim parts, and can cause the assembly to burst with an explosive force sufficient to cause serious physical injury or death.

1. DEFLATION AND DISASSEMBLY

- (1) Always check the tire/rim assembly for the proper components seating prior to the removal from the vehicle.
- (2) Always deflate the tire by removing the valve core prior to removing the wheel from vehicle or disassembling of the components.
- (3) Never position your body in front of the rim during deflation.
- (4) Always follow the assembly and disassembly procedures outlined in this instruction manual and obtain safety literature from the Authorities.
- (5) Never use a steel hammer to assemble or disassemble the rim components. Use a lead, brass, or plastic type mallet.

2. RIM INSPECTION

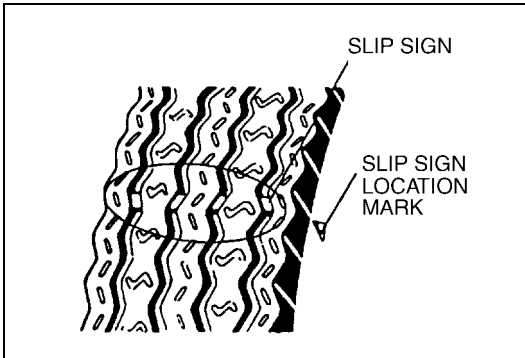
- (1) Always select the proper tire size and construction to match the rim or wheel rating and size.
- (2) Never use damaged, worn, or corroded rims, wheels, or mounting hardware.
- (3) Always clean and repaint lightly rusted rims.
- (4) Never use a rim or wheel component you cannot identify.

3. ASSEMBLY AND INFLATION

- (1) Always perform the double check to see that the removable rings are properly seated before inflating.
- (2) Always inflate the tire in a safety cage or use a portable lock ring guard. Use a clip-on type air chuck with a remote valve so that you can stand clear during the tire inflation.
- (3) Never attempt to seat the rings while the tire is totally or partially inflated.
- (4) Never re-inflate or add inflation pressure to a tire that has been run flat or seriously under inflated without removing and checking for ring seating and rim damage.
- (5) Tire pressure should be checked while cold. Do not bleed air from tires while hot. This will result in an under inflated condition. Under inflated tires build up excessive heat due to overdeflection that may result in sudden tire deterioration, causing severe handling problems.
- (6) Never use an assembly with excessive side ring play, wide gaps between ring ends, or butting ring ends.
- (7) Never hammer on the components of an inflated or partially inflated assembly.

INSPECTION

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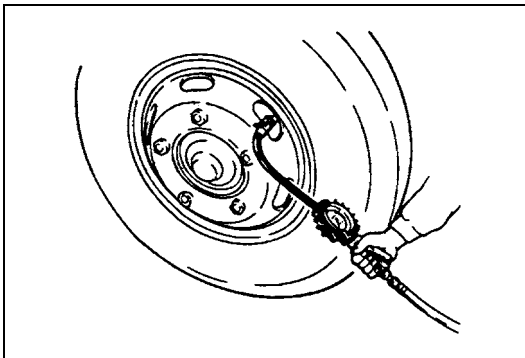
1. GENERAL INSPECTION

- (1) Check the tire tread wear (groove depth) and tire damage. If the slip sign on the tire tread comes out, replace the tire.

Groove depth (Remaining groove)

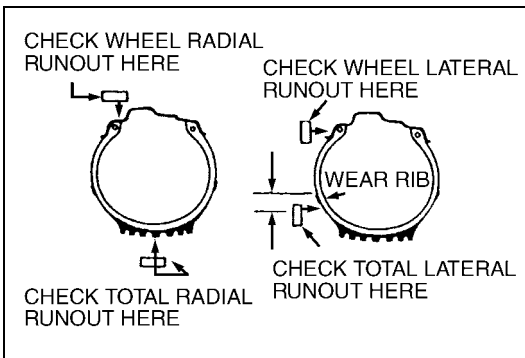
General running: 1.6 mm {0.063 in.}

High-speed running: 3.2 mm {0.126 in.}



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- (2) Check the air pressure.
If improper, inflate the tire to the proper pressure as previously described in this chapter.



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2. CHECK RUNOUT IN THE TIRE AND WHEEL RIM.

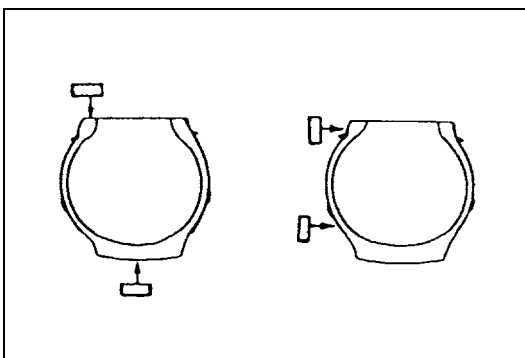
NOTICE

Eliminate any flat spots in the tire by driving the vehicle a little.

- (1) Jack up the vehicle and check the runout in the tire and wheel rim.

Unit: mm {in.}

	Tire	Wheel rim
Lateral runout	Less than 3.5 {0.138}	Less than 1.8 {0.071}
Radial runout	Less than 2.5 {0.098}	Less than 1.8 {0.071}



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- (2) If the wheel rim does not conform to the runout limits, try re-mounting the wheel in a different position.
- (3) If the wheel rim is still not within 1.8 mm {0.072 in.} of runout, then replace it with a new rim.
- (4) If the tire does not conform to runout standards, reinstall it in different position on the rim.

3. WHEEL AND TIRE BALANCING.

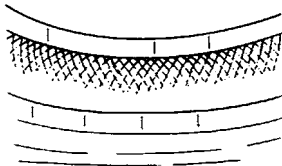
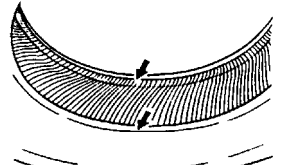
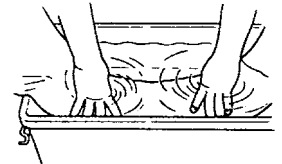
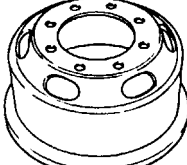
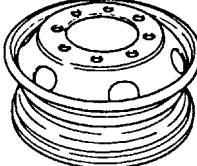
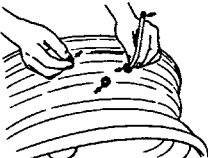
- (1) Driving with a rim or tire that is unbalanced may cause the vehicle and steering wheel to shimmy, and will produce an abnormal tire wear.

In this situation, we recommend that you should balance the wheels.

- Static balancing
This is relatively effective when operating at low speeds; however, if operating at high speeds, dynamic balancing is recommended.
- Dynamic balancing
Please balance the wheels, using a balancing machine.

INSPECTION AND REPAIR

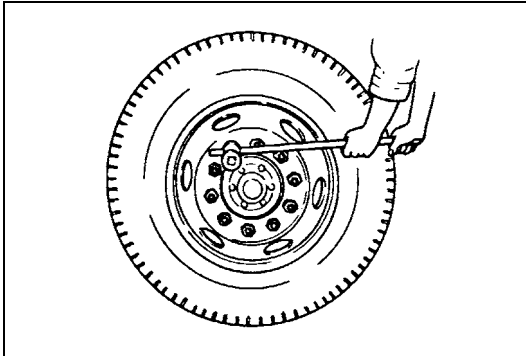
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Inspection item	Standard	Limit	Remedy	Inspection procedure
Tire: Damage, foreign matter, etc.	—	—	Replace, if necessary.	Visual check 
Tubeless tire: Damage	—	—	Replace, if necessary.	Visual check 
Tube: Air leakage	—	—	Replace, if necessary.	Visual check 
Wheel (With tube): Cracks and deformation	—	—	Replace, if necessary.	Visual check 
Wheel (Tubeless tire): Cracks and deformation	—	—	Replace, if necessary.	Visual check 
Rim (Tubeless tire): Damage	—	—	Replace, if necessary.	Visual check 
Pipe, nut and O-ring of the valve (tubeless tire): Damage	—	—	Replace, if necessary.	Visual check 

SAE, JIS, DIN AND ISO TYPE WHEEL

OVERHAUL

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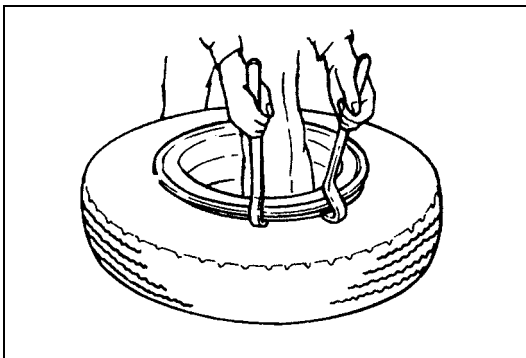
IMPORTANT POINT - REMOVAL

1. REMOVE THE WHEEL AND TIRE.

- (1) Loosen the wheel nuts, but do not remove them.
- (2) Raise the vehicle until the tire clear the floor.
- (3) Remove the wheel nuts and tire from the hub and drum.
On dual tires, the inner wheel nuts will also have to be removed for the inner tire to be removed.

NOTICE

- Be sure to apply the wheel stoppers in the front or rear tires.
- The wheel nuts on the right side of the vehicle have right hand threads, and those on the left side have left hand threads.

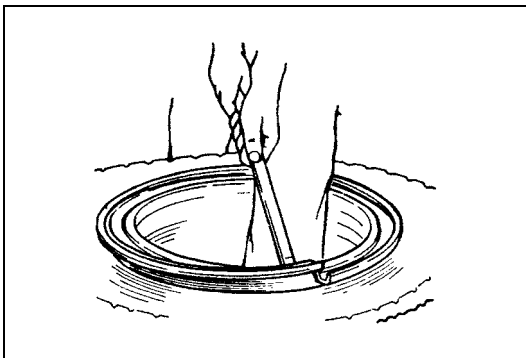


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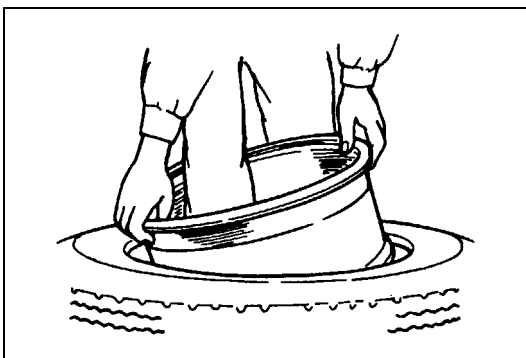
IMPORTANT POINTS - DISASSEMBLY

1. DISASSEMBLE THE WHEEL AND TIRE (WITH TUBE).

- (1) Place the wheel and tire on the floor with side ring up.
- (2) Make certain that the tire is completely deflated with the valve core removed.
- (3) With a suitable tools, insert the hook end between the side ring and side wall of the tire and pry the bead loose from the side ring with a downward pressure on the tools.
- (4) Continue prying progressively around the tire until the bead is completely freed from side ring.
- (5) With the special tool, pry the side ring from its groove in the rim by prying progressively around the tire until the ring is freed.
SST: Lever (09672-1040)

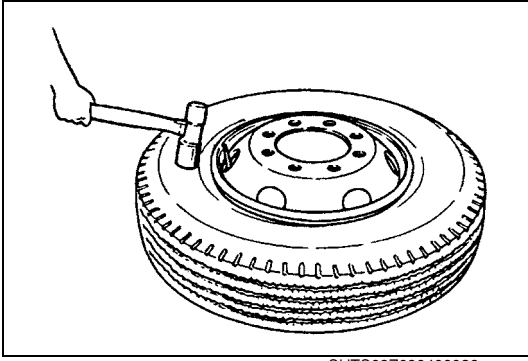


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SHTS08Z090400025

- (6) Turn the assembly over and unseat the second tire bead from the rim. Lift the rim from the tire.
Remove the tube and flap, if any, from the tire.

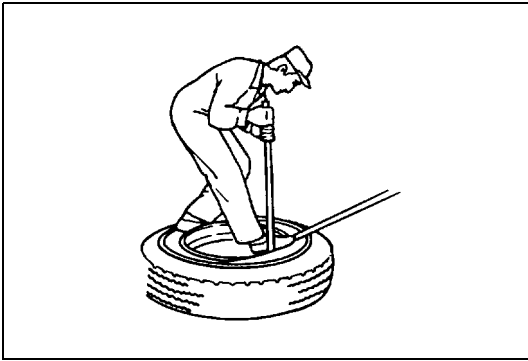


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2. DISASSEMBLE THE WHEEL AND TIRE (TUBELESS).

- (1) Make certain the tire completely deflated with the valve core removed.
- (2) With the tire lying flat, loosen both beads with the special tool or by standing on the tire with your heels close to the rim.

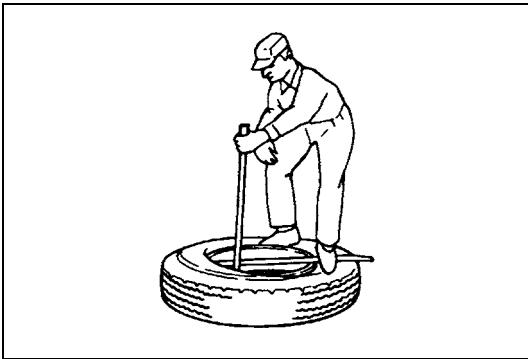
SST: Rubber hammer (09609-1220)



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- (3) With the wide side of the rim down, lubricate the top bead.
- (4) With the stops toward the rim, insert the spoon ends of the special tools about 250 mm {10 in.} apart. Holding the bead in the well with one foot, pull one tool towards the center of the rim.

SST: Lever (09609-1210)



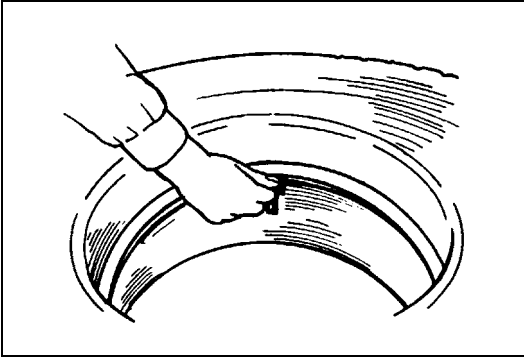
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- (5) Hold the tool in position with one foot and pull the second tool toward the center of the rim. Progressively work the bead off the rim, taking additional bites with the tools as necessary.



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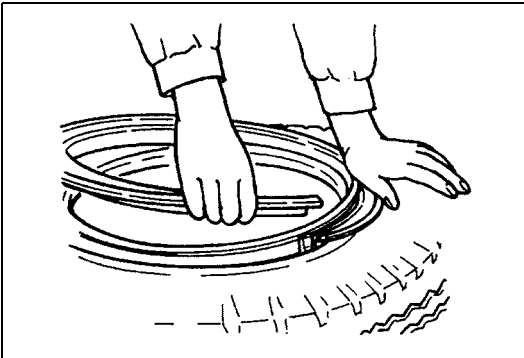
- (6) Stand the assembly in a vertical position. Lubricate the second bead.
- (7) At the top of the assembly, insert the straight end of the tool between the bead and back the flange of the rim at about 45 degrees angle. Turn the tool so that it is perpendicular to the rim. Pry the second bead off.

IMPORTANT POINTS - ASSEMBLY

SHTS08Z090400030

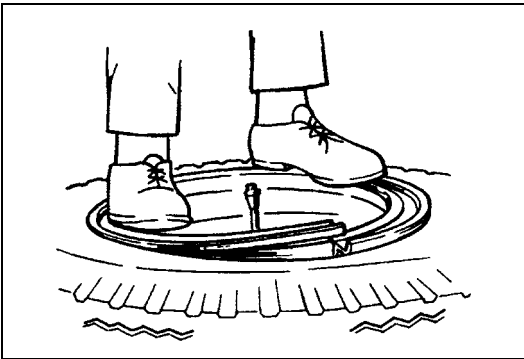
1. ASSEMBLY THE WHEEL AND TIRE (WITH TUBE).

- (1) Insert the tube and the flap into the tire and partially inflate to round out the tube. Apply the rubber lubricant to the inside and outside surfaces of both beads and to that portion of the tube and flap that appears between the beads. Lay the rim flat on the floor with the valve slot up. Align the valve with the rim valve slot, and place the tire onto the rim, and insert the valve through the valve slot.



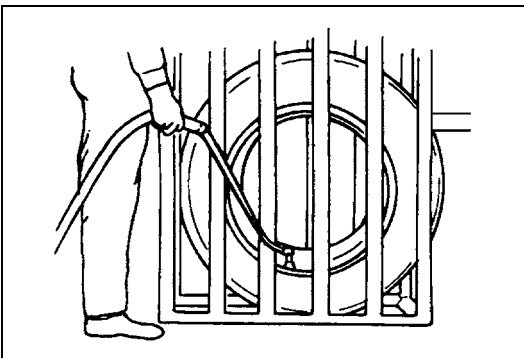
SHTS08Z090400031

- (2) Place the side-ring on the rim base so that the ring split is opposite to the valve stem. Place the leading end of the ring into the groove in the rim as shown.



SHTS08Z090400032

- (3) Starting at the valve side progressively walk the side-ring into place. Check to ensure that the ring is fully seated in the groove.



SHTS08Z090400033

- (4) Place the tire assembly in a safety cage and inflate the tire as previously described in this chapter. Again check the side-ring, tapping lightly with a mallet to ensure the proper engagement. Check to see that the beads are properly seated. Completely deflate the tire to prevent the tube from the buckling. Reinflate according to the recommended pressure, and check the tire assembly.



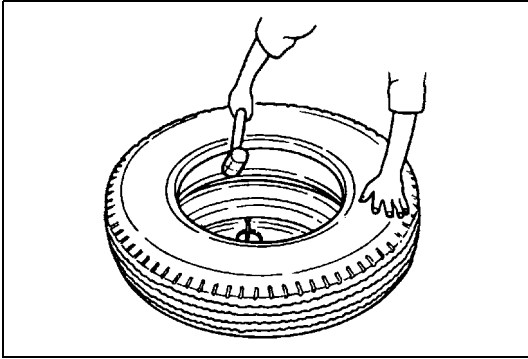
SHTS08Z090400034

2. ASSEMBLY THE WHEEL AND TIRE (TUBELESS).

- (1) Be sure that the proper valve is used and is properly installed in the rim.

Valve nut tightening torque: 12.7 N·m {130 kgf·cm, 9.4 lbf·ft}

- (2) Inspect the rim to ensure that the bead seats are clean and smooth.
- (3) Place the rim on the floor with the wide side down and lubricate the first bead of the tire and upper bead seat of the rim.

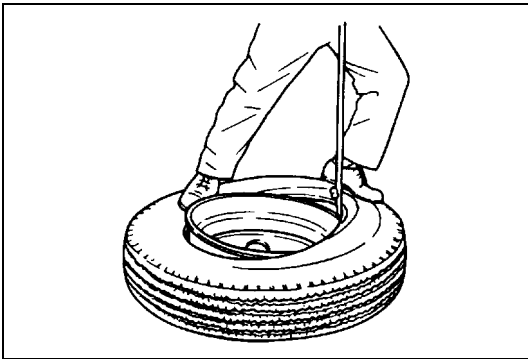


SHTS08Z090400035

- (4) Push the first bead into the well of the rim and onto the rim as far as possible.

With the special tool, hammer the first bead so that the bead gets over the rim flange.

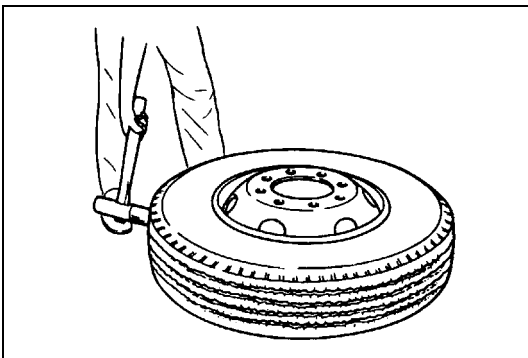
SST: Rubber hammer (09609-1220)



SHTS08Z090400036

- (5) Insert the lever between the rim flange and the tire bead and then raise the lever so that the bead gets over the rim flange.

SST: Lever (09609-1210)



SHTS08Z090400037

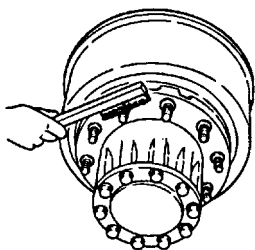
- (6) With the special tool, hammer the tire tread so that the bead and the rim will be seated.

SST: Rubber hammer (09609-1220)

- (7) Inflate the tire as described in this chapter, making certain that all the safety precautions are followed. Check for the leakage.

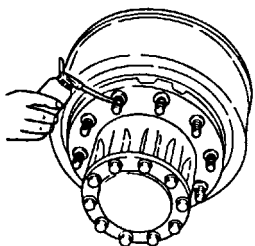
IMPORTANT POINTS - INSTALLATION**1. INSTALL THE WHEEL AND TIRE.**

- (1) Be sure to check all parts and replace any parts that are overly worn or damaged. Clean and remove any foreign matter from hub bolts, wheel nuts and wheel side is contacting with the brake drum.



SHTS08Z090400038

- (2) Apply lubricant (engine oil or grease) to the thread part of the hub bolts and wheel nuts.

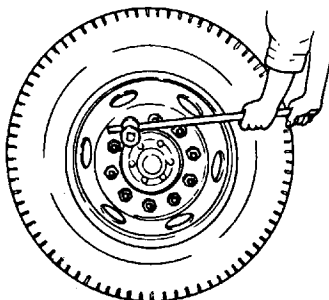


SHTS08Z090400039

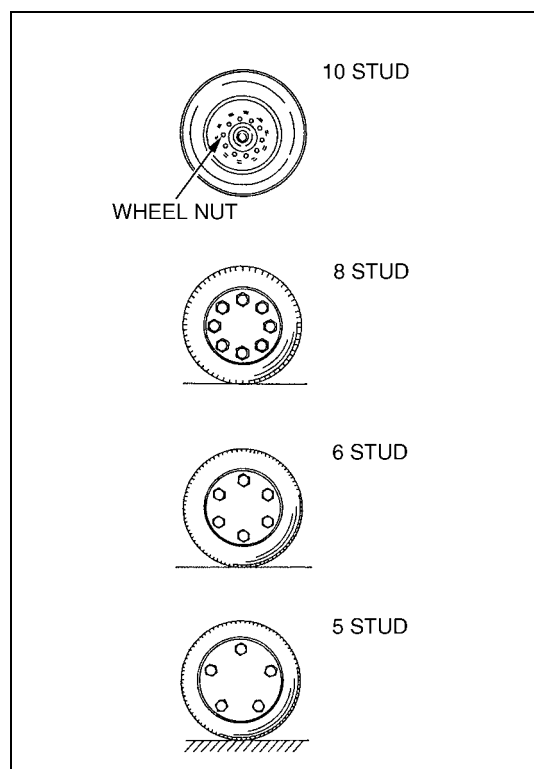
- (3) Rotate the wheel if necessary and check to see that the hub bolts are in the center of the wheel's hub bolt holes, then tighten the wheel nuts lightly.

NOTICE

The wheel nuts on the right side of the vehicle have right hand threads, and those on the left side have left hand threads.



SHTS08Z090400040



- (4) Using a wheel nut wrench, tighten the wheel nuts in accordance with specified torque using diagonal method.

		Tightening torque N·m {kgf·cm, lbf·ft}
DIN type		490.34-588.39 {5,000-6,000, 362-434}
SAE and JIS type	10 stud	392.27-470.71 {4,000-4,800, 290-347}
	8 stud	
	6 stud	
	5 stud	235.36-294.19 {2,400-3,000, 174-217}
ISO type		490-539 {5,000-5,500, 362-397}

NOTICE

Tighten the wheel nuts with several repetitions in the tightening order so as to reach the proper torque evenly and gradually.

⚠ WARNING

The specified torque should be referred to the torque tightening wheel nuts. Tightening it with incorrect can cause the wheel to come off while driving. This can result in physical injury and/or property damage due to the loss of vehicle control.

When the vehicle, wheels, or wheel nuts are new, the wheel nuts should be checked and tightened with specified torque at 50-100 km {30-60 miles} since they may not be well tightened. The tightening torque should be checked with the proper torque wrench.

2. THE FOLLOWING ORDER AND INSTRUCTIONS ARE NECESSARY FOR INSTALLING THE DUAL TIRES.

- (1) Installation procedures for the inner wheel nuts are the same as in 1. through 4. above.
- (2) Installation procedures for the outer wheel nuts are the same as above.
- (3) When only the outer wheel is replaced, first tighten all the inner wheel nuts to the specified torque. Then mount the outer wheel and tighten all the outer wheel nuts to the specified torque.

NOTICE

- Install the dual rear wheels with their valve stems positioned at 180 degrees apart to facilitate inflation.
- Tighten all the inner nuts and outer nuts according to the above-mentioned procedures.

3. WHEEL AND TIRE BALANCING

- (1) Driving with a rim or tire that is unbalanced may cause the vehicle and steering wheel to shimmy, and will produce an abnormal tire wear.
In this situation, we recommend that you should balance the wheels.
- Static balancing
This is relatively effective when operating at low speeds; however, if operating at high speeds, dynamic balancing is recommended.
- Dynamic balancing
Please balance the wheels, using a balancing machine.

SPOKE WHEEL AND ADAPTER TYPE WHEEL

OVERHAUL

EN08Z0904H200002

IMPORTANT POINT – REMOVAL

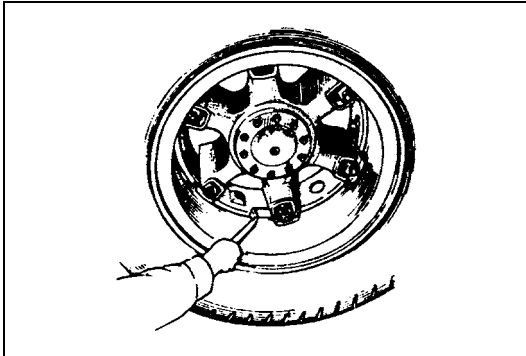
1. REMOVAL OF THE RIM AND TIRE.

- (1) Loosen the clamp nuts, but do not remove them completely.
- (2) Raise the vehicle until the tire clear from floor.
- (3) Remove the clamp nuts and then use the special tool to pry off the clamps.

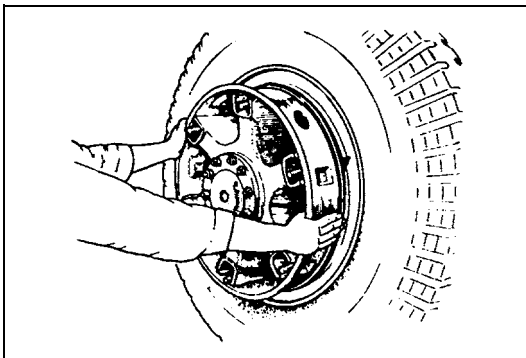
SST: Lever (09672-1010)

NOTICE

Block the wheels.



SHTS08Z090400042



SHTS08Z090400043

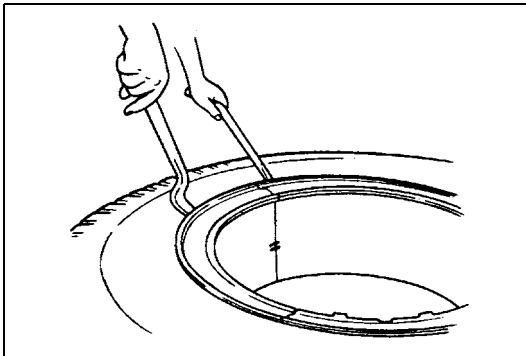
- (4) On the dual tires, the band spacer will also have to be removed and then remove the inner wheel.

IMPORTANT POINT – DISASSEMBLY

1. DISASSEMBLE THE RIM AND TIRE.

- (1) Place the wheel on the floor with valve side up.
- (2) Make sure the tire is completely deflated with the valve core removed.
- (3) With the special tools, insert the hook end between the rim and side wall of tire and pry the bead loose from the rim with a downward pressure on the tools.

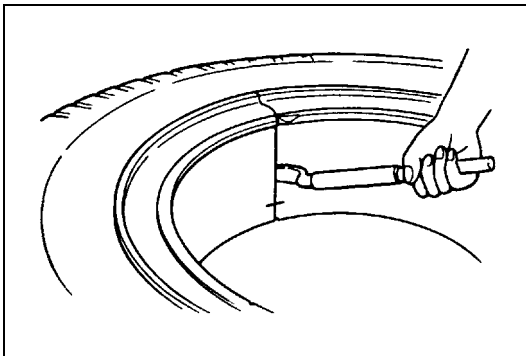
SST: Lever (09672-1010, 09672-1020)



SHTS08Z090400044

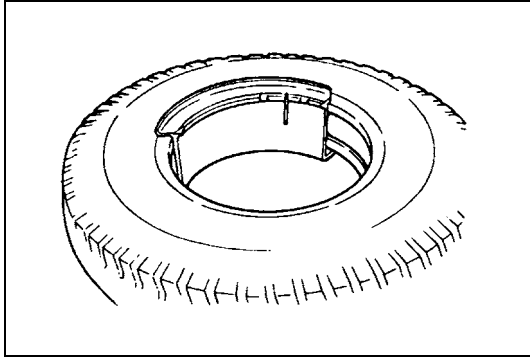
- (4) Continue prying progressively around the tire until the bead is completely freed from the rim.
- (5) Make a matching marks on the segments.
- (6) Place the special tool in the rim joint groove and pry the rim segments apart.

SST: Lever (09672-1010)



SHTS08Z090400045

- (7) Remove the rim segments.

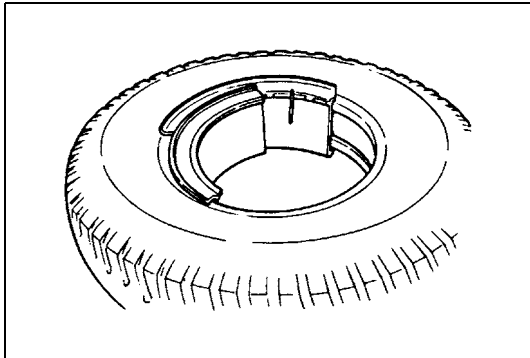


SHTS08Z090400046

IMPORTANT POINT – ASSEMBLY

1. ASSEMBLE THE RIM AND TIRE.

- (1) Clean the rim segments and check for damages, if there is any damage, repair or replace.
- (2) Fit the tube and flap in the tire.
- (3) Place the segment with valve hole in the tire.
The valve must point upwards.

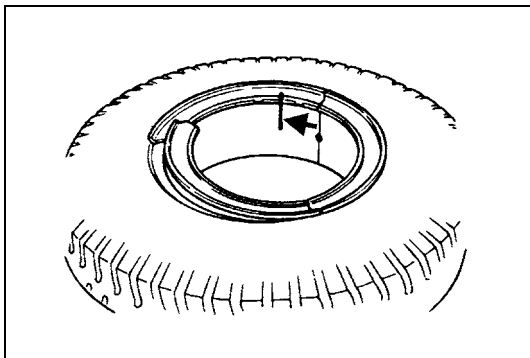


SHTS08Z090400047

- (4) Place the other segment on the first one as shown in the figure.

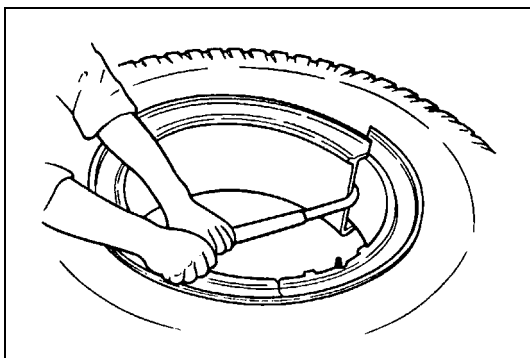
NOTICE

Align the matching marks on the segments.



SHTS08Z090400048

- (5) Place the other segment together with the first one.
Fit the segment so that the valve lies against the side of the hole marked with an arrow.



SHTS08Z090400049

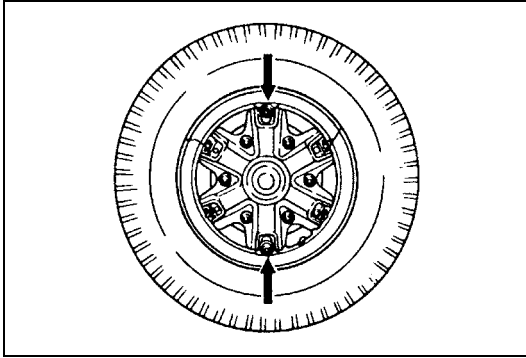
- (6) With the special tool, pry the segments to fit the last segment in position.

SST: Lever (09672-1020)

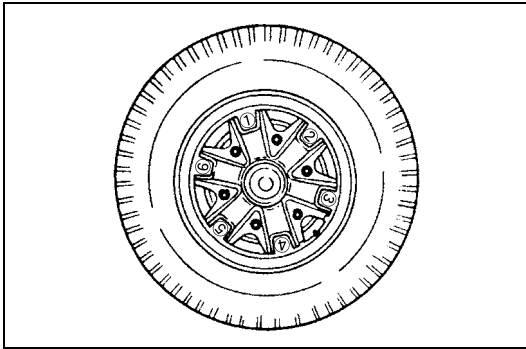
NOTICE

Do not pull upwards.

- (7) Install the valve core and then inflate the tire as previously described in this chapter, making sure that all the safety precautions are followed. Check for the leakage.

IMPORTANT POINTS – INSTALLATION

SHTS08Z090400050

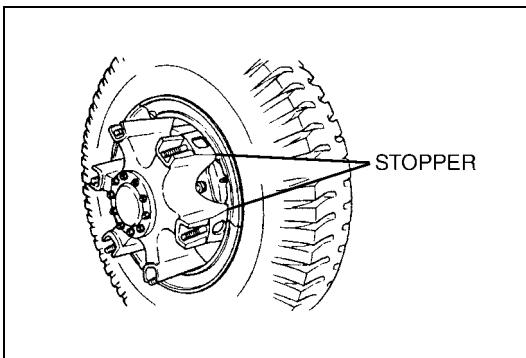


SHTS08Z090400051

1. INSTALL THE SINGLE WHEEL.

- (1) Clean the spoke ends, rim edges, clamps and nuts.
- (2) Lubricate the clamp bolts.
- (3) Install the wheel over the spoke ends so that the valve and rim stopper are between two spokes.
- (4) Install two clamps and nuts on opposite sides of the rim as indicated by arrows on the drawing. Tighten the nuts lightly.

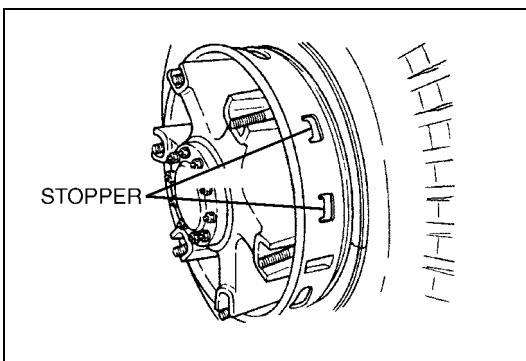
- (5) Install the remaining clamps and nuts. Tighten the nuts in sequence round the rim edge to sufficient torque as described in this chapter.
- (6) Check and retighten the nuts after driving the vehicle in a distance.



SHTS08Z090400052

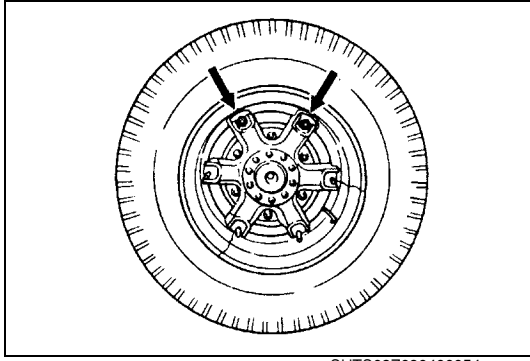
2. INSTALL THE DUAL WHEEL.

- (1) Clean the spoke ends, rim edge, band spacer, clamps and nuts.
- (2) Lubricate the clamp bolts.
- (3) Install the inner wheel so that the valve and rim stopper are between two spokes.

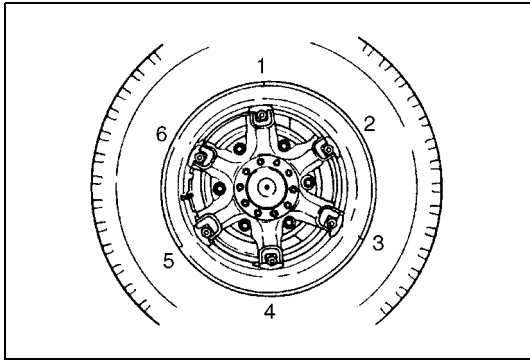


SHTS08Z090400053

- (4) Install the band spacer over the spokes so that it may be tightened up against the inner wheel rim. The band spacer stopper must be between two spokes. Make sure that the band spacer stopper does not cover the inner wheel valve.



- (5) Install the outer wheel and press it, and then tighten up against the band spacer. Make sure that the rim stopper and valve are between two spokes and diagonally to the inner wheel valve. Install two top clamps and nuts as indicated by the arrows on the drawing and tighten the nuts lightly.



- (6) Install the remaining clamps and nuts.
(7) Tighten the nuts in sequence round the rim edge to sufficient torque as previously described in this chapter.
(8) Check and retighten the nuts after driving the vehicle in a distance.