

NABI: Gates Belt Tensioner Installation



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Property name and top bus number: NABI buses equipped with automatic belt tensioner

Issue: Short lifetime of AC belt tensioner.

Reason / cause: The current AC belt tensioner is not reliable.

Solution: Install new Gates belt tensioner per this work instruction (SOI).

PROPERTY OF:
North American
Bus Industries, Inc.
WHEN PRINTED VALID FOR THREE DAYS FROM:

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Number of affected buses: as required

Estimate repair hours/bus: 30 minutes

Necessary parts:

Kit (arm, pulley, bearing),	NABI Part #: 501-7447-120,	1/bus,
Bolt, 7/16-14 X 4.25, Hex, Gr8,	Fastenal Part #: 15170,	1/bus,
Washer, Flat 7/16 Zn Gr8,	NABI Part #: 2607,	2/bus,
Nut nylock 7/16-14, Zn, Gr8,	NABI Part #: 5015555,	1/bus,
Bolt, 3/8 X 2-1/2, Hex Head Zn, Gr8,	NABI Part #: 220616208,	1/bus
Washer, flat, 3/8, Zn, Gr8, USS,	NABI Part #: 2606,	2/bus
Nut Nylock 3/8 Gr8,	NABI Part #: 5015559,	1/bus

Replace AC belt if signs of excessive ware

Necessary tools: Standard sockets and wrenches, 3/8 size drill bit, drill, hammer, center punch



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SAFETY PRECAUTIONS MUST BE FOLLOWED ACCORDING TO ACCEPTED INDUSTRY STANDARDS AND LOCAL/PROPERTY REQUIREMENTS.

1. Park the bus on a flat surface.
2. Apply the parking brake.
3. Place wheel chocks underneath the front wheels.
4. Turn the main electric battery disconnect switch off.
5. Open the rear engine compartment door.
6. Remove belt guard.
7. Remove AC belt.
8. Remove the old AC belt tensioner, tensioner lock paw and hardware.



9. Installing the new belt tensioner:

- Install the new 7/16x4-1/4 inch bolt from the back side of the bracket
- Install the tensioner base plate on the 7/16x4-1/4 inch bolt
- Point the 3/8 base plate locking hole approximately 5 o'clock and mark the AC bracket through the hole
- drill a 3/8 hole at the mark into the AC bracket
- Install 3/8x2 inch bolt, nut and washers into the 3/8 hole of locking base plate and tighten.
- Install the belt tensioner assembly on the base plate with 7/16 bolt, 7/16 nut and flat washer (do not tighten).
- Install AC belt and rotate belt tensioner until it makes contact with the AC belt
- With a marker mark the position of the belt tensioner with the tensioner base plate

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- Remove the belt and rotate the tensioner assemble 3 notches as a starting point
- Tighten the 7/16 bolt of the belt tension assembly.
- Install AC belt by inserting a ½ inch ratchet in the end of the assembly then push down.
- Check crank, tensioner and AC pulley for alignment. Adjust as needed per maintenance procedure.



10. Check the belt tension by using a belt tension gauge. The belt tension should be 135-150 lb. To achieve the correct belt tension loosens the belt assembly 7/16 bolt and rotates the assembly clockwise (tighten belt) or counter clockwise (loosen belt) one notch at a time until you achieve the 135-150lbs of belt tension.

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11. Turn the battery switch on and start the bus. Make sure that the AC system is working properly. Run the engine on fast idle for 10 minutes with the AC on.
12. Then stop the engine then turn off the battery switch. Recheck the belt tension and make necessary adjustments as needed.
13. Reinstall the belt guard. Inspect work for completeness.
14. Make sure that all of the tools and unused parts are removed from the engine compartment.
15. Record bus number, mileage and date of completion.
16. Continue to inspect AC Belt drive line components per Maintenance Manual intervals.