

FT4929 Curb side front wheel air brake hose rubbing

Technical writer name
Devanand

Manual section 08

First Level Parts		
Material	Part Number	QTY
-	-	-

Nb hours Level 1 0.5 hr
 Nb hours Level 2 1.5 hr
 MQR 7621-2141

Second Level Parts (33% of 38 vehicles)		
Material	Part Number	QTY
HOSE AIR BRAKE FRONT AXLE	N45827	1

Disposal of parts		
Removed parts are:		When the retained check box is checked, the parts must be retained and returned in accordance with the usual warranty procedure to be reimbursed.
Discarded	Retained	
X	-	

Shop Supply (33% of 38 vehicles)		
Material	Part Number	QTY
TIE TEFZEL CABLE TIES	N56339	3
CABLE TIE	504637	6

Client	Order	Road numbers	VIN	QTY	Lang.	Customer	Target market	Plant	Config moteur	Model	NR	R1
New York City Transit New York - NYCT	LA76	8623 8633	L82J5K9777134 L82J8K9777144	11	E	NYCT	US	PLB	TD	40	x	
New York City Transit New York - NYCT	LC32	8634 8641	L82JXK9777145 L82J7K9777152	8	E	NYCT	US	PLB	TD	40	x	
New York City Transit New York - NYCT	LC32	8643 8643	L82J0K9777154 L82J0K9777154	1	E	NYCT	US	PLB	TD	40	x	
New York City Transit New York - NYCT	LC32	8645 8645	L82J4K9777156 L82J4K9777156	1	E	NYCT	US	PLB	TD	40	x	
New York City Transit New York - NYCT	LC32	8647 8654	L82J8K9777158 L82J5K9777165	8	E	NYCT	US	PLB	TD	40	x	
New York City Transit New York - NYCT	LC32	8658 8658	L82J2K9777169 L82J2K9777169	1	E	NYCT	US	PLB	TD	40	x	
New York City Transit New York - NYCT	LC32	8661 8664	L82J2K9777172 L82J8K9777175	4	E	NYCT	US	PLB	TD	40	x	
New York City Transit New York - NYCT	LC32	8666 8666	L82J1K9777177 L82J1K9777177	1	E	NYCT	US	PLB	TD	40	x	
New York City Transit New York - NYCT	LC32	8669 8669	L82J1K9777180 L82J1K9777180	1	E	NYCT	US	PLB	TD	40	x	
New York City Transit New York - NYCT	LC32	8671 8672	L82J5K9777182 L82J7K9777183	2	E	NYCT	US	PLB	TD	40	x	

Brake hose internal campaign C/S and S/S front brake hoses

NYCT LC32

Tools/parts required if replacement of hose is necessary

- Wheel chocks/jack stands
- Lock-out/Tag-out
- Torque wrench
- 7/8" crows foot
- Ratchet with 10mm socket
- 10mm wrench
- Brake hose N45827
- Blue zip ties N56339, X3
- Black zip tie G5007995, X6

Brake hose rubbing tire



Root Cause

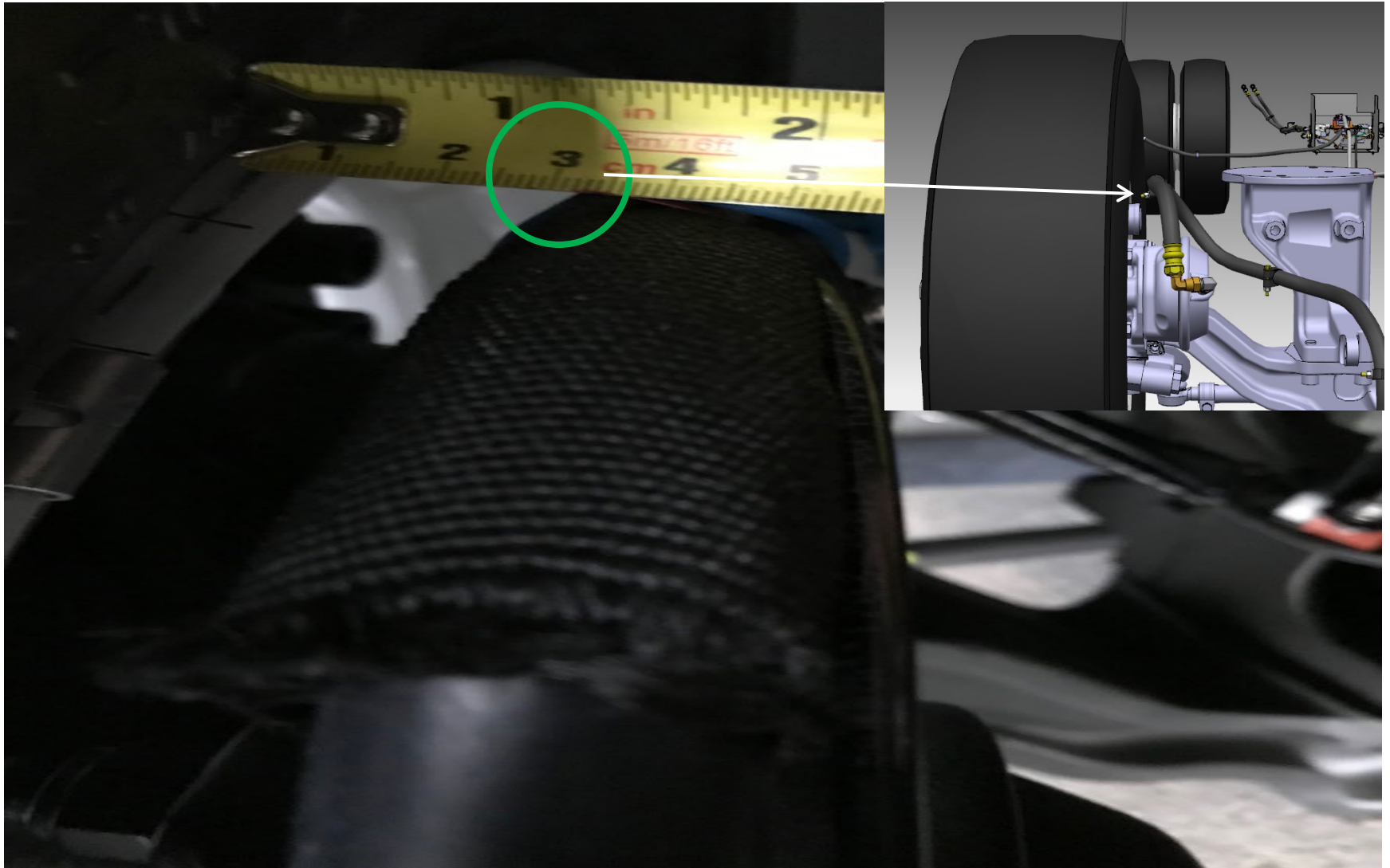
- While tightening the brake hose at the C/S front brake chamber some buses have had the brake line twist toward the front tire during the torqueing process, this is not present on the street side, this hose when torqued moves away from the tire due to it being the opposite direction as the curb side.

A 30mm minimum of clearance is required between brake hose and tire

Lock bus out

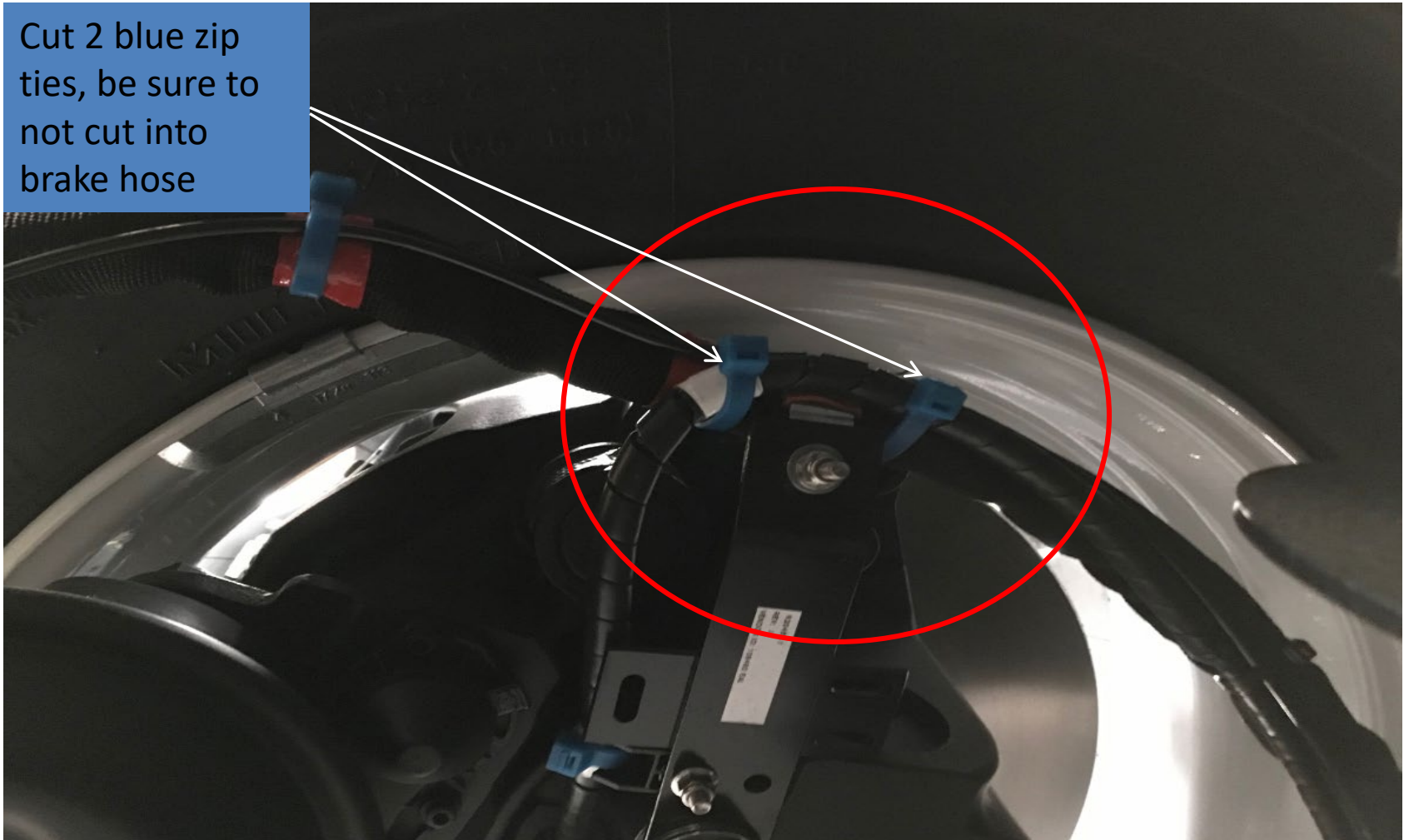
- Place jack stands at yellow jacking points at the front of the bus, once complete, it is safe to measure inside the C/S and S/S wheel well.
- Measure distance between brake hose and tire, turning the wheel to the right will make it easier if the bus is on the ground or it can be done with the wheels straight if the bus is in the air or over a pit.

Measure distance between brake hose and tire at its closest point



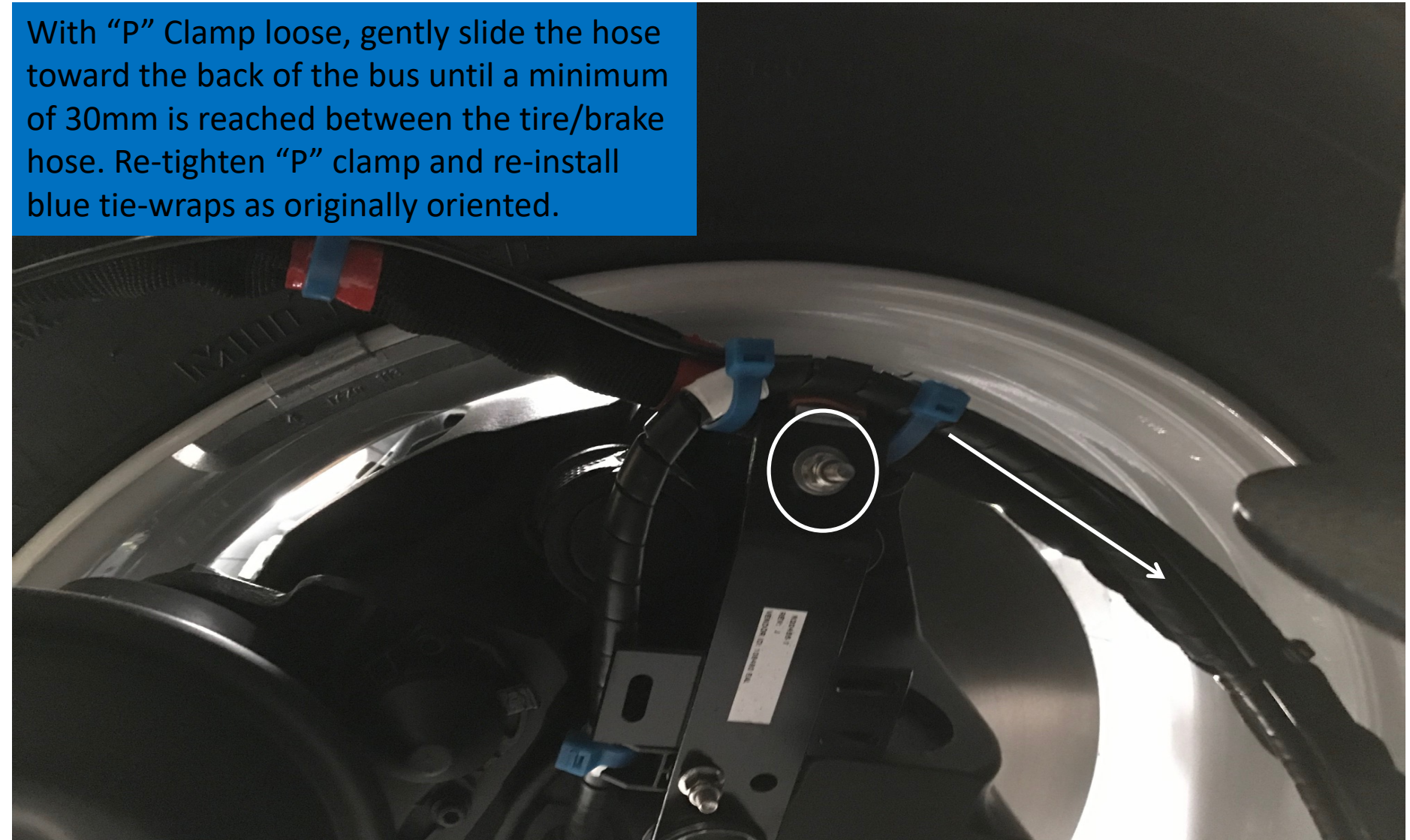
If there is less than 30MM and no contact between the brake hose and tire has been made, conduct the following procedure, keep bus locked out/chocked/stands in place

Cut 2 blue zip ties, be sure to not cut into brake hose



Loosen “P” Clamp

With “P” Clamp loose, gently slide the hose toward the back of the bus until a minimum of 30mm is reached between the tire/brake hose. Re-tighten “P” clamp and re-install blue tie-wraps as originally oriented.



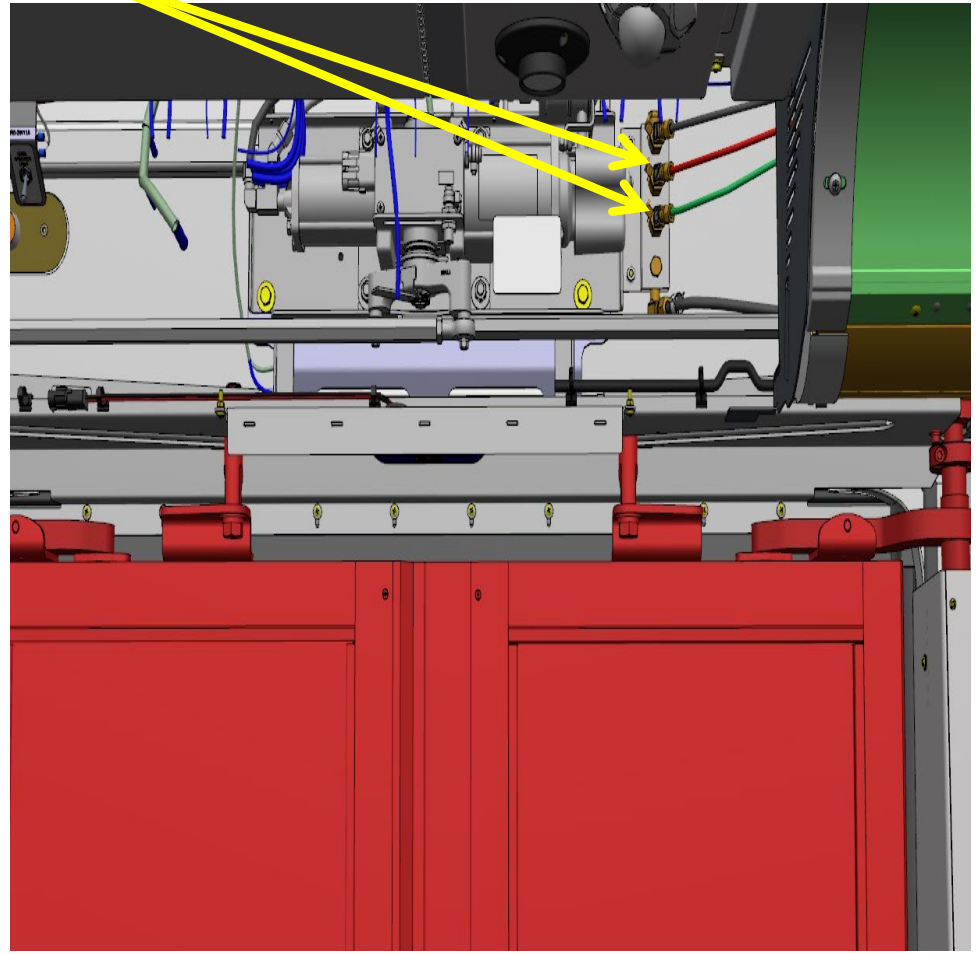
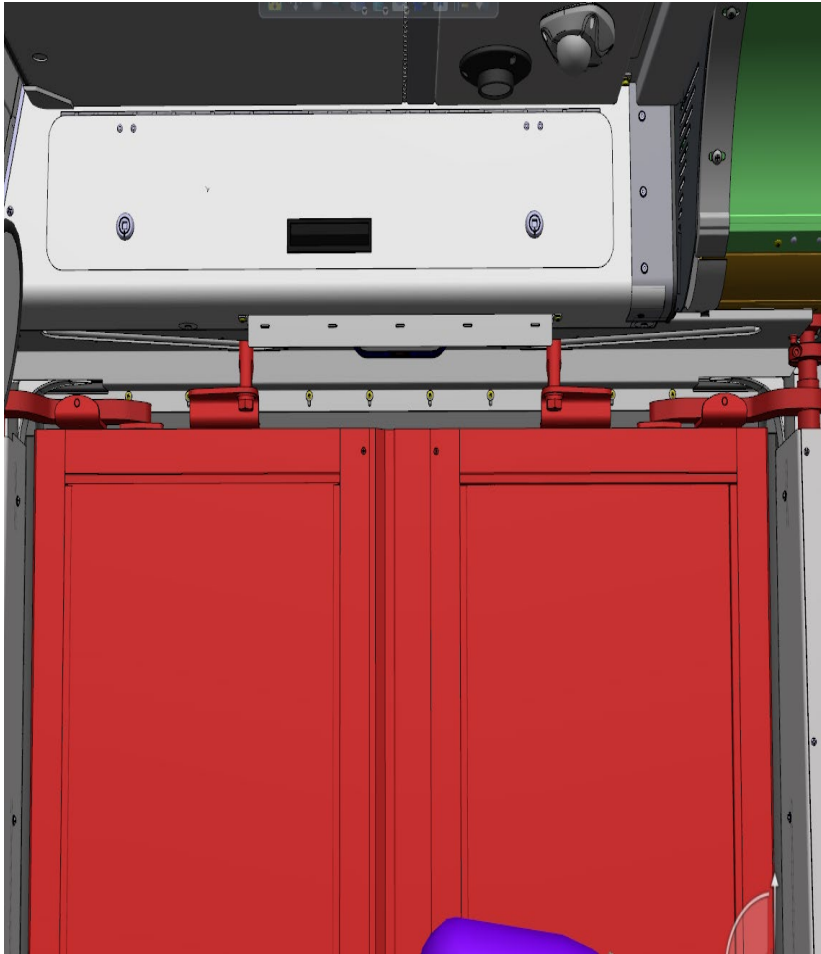
Check connection at brake chamber

- Verify the hose is not kinked/stressed where the fitting is crimped onto the hose at the brake chamber.

If contact has been made:

- The brake hose must be replaced.
- The repair can be done with the bus on the ground with the wheel turned all the way to the right, over a pit, or on a lift. Follow all local safety procedures.

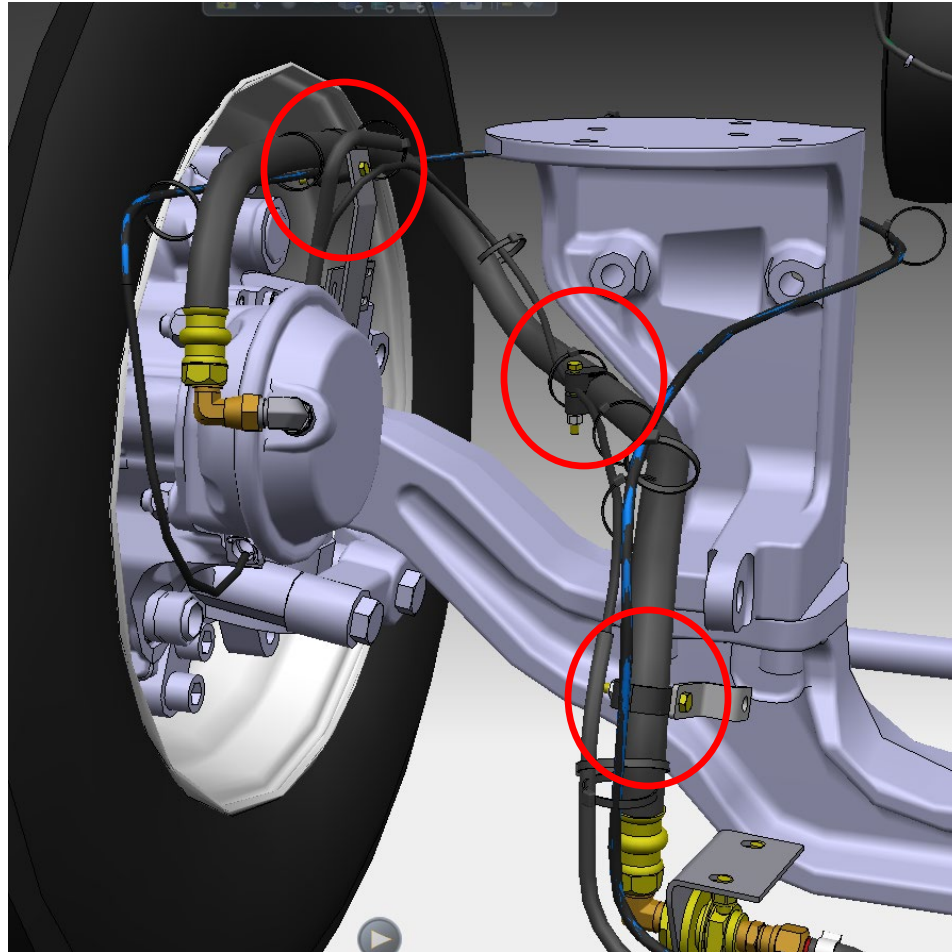
Empty primary and secondary air tanks, red and green shown below



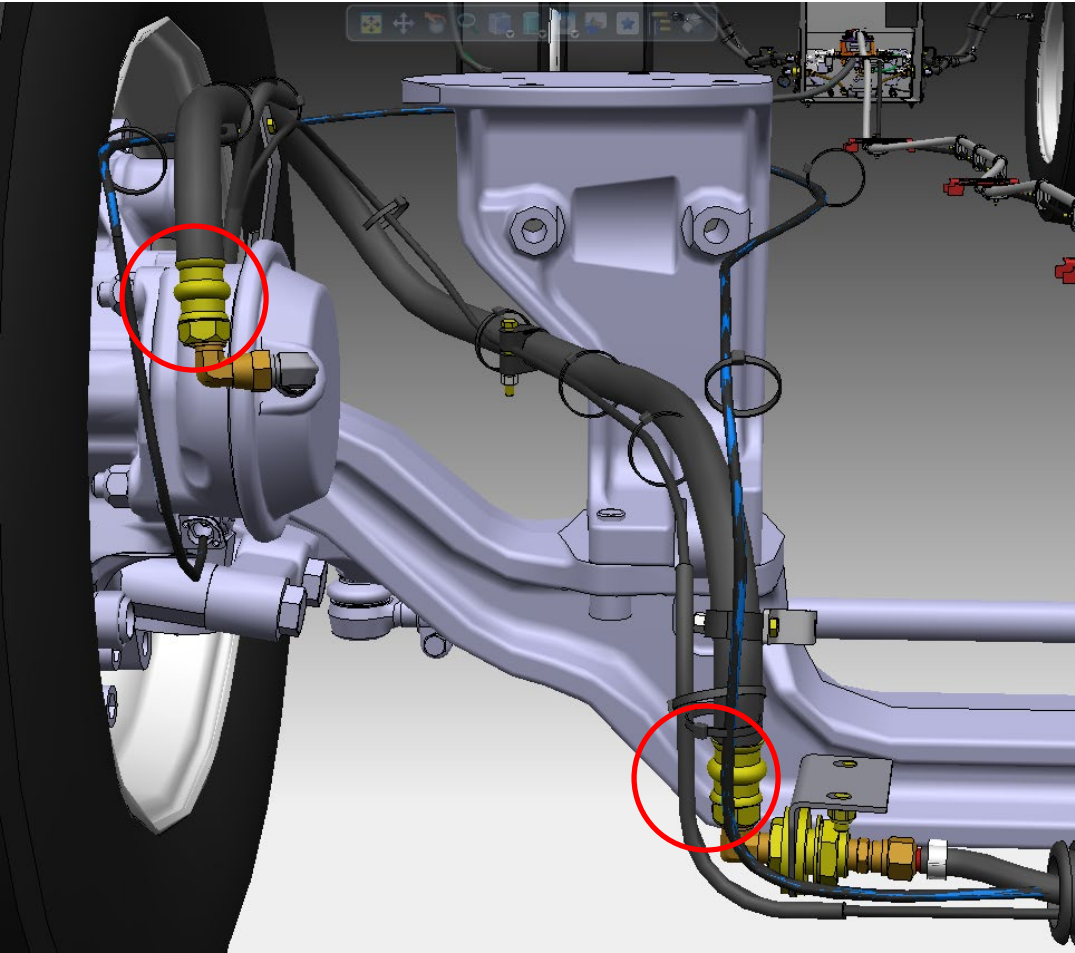
Remove zip ties from brake hose for ABS and brake wear sensor

- Be cautious when cutting, do not cut into cables

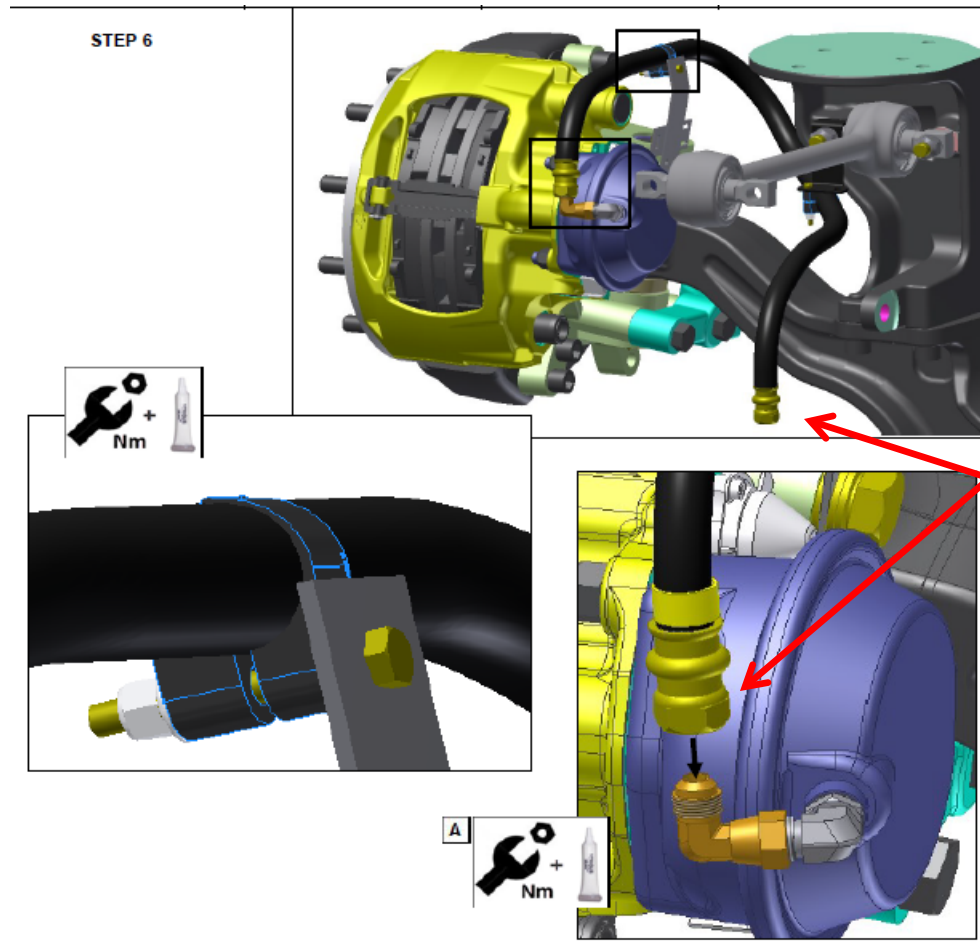
Remove “P” clamps from brake hose X3



Disconnect air hose and discard



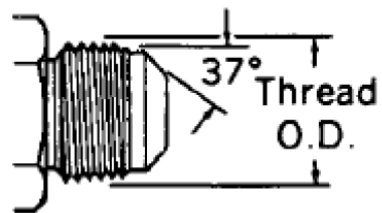
Install new air hose into “P” clamps, follow routing shown below



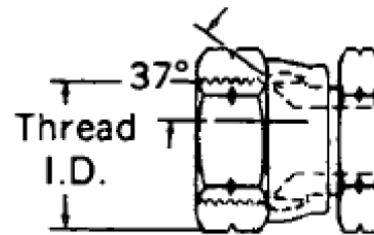
Air hose installation continued

6.0 SAE 37° JIC TYPE FITTINGS AND adapter

The 37° JIC fitting seal is achieved through metal-to-metal contact between the flared nose of the fitting and the flared tube face in the female port.



Male



Female

Air hose installation continued

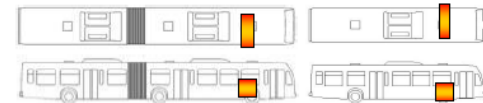
- **SAE 37° JIC flare fitting assembly instructions**
- 6.1.1 Inspect the contact surface and threads for any damage or material flaw.
- **(Do not apply sealer on threads.)**

Air hose installation continued

- Use thread size to determine torque to be applied (see **Table 5**).
- 6.1.4 Screw in the adapter or fitting by hand to ensure threads are correctly engaged
- and finger tighten as much as possible.
- 6.1.5 Using a wrench, complete tightening to the recommended torque (see **Table 5**).
- 6.1.6 Apply anti-tamper seal (“Torque Seal”) to indicate torque has been applied (**AVT-0203**).

Re-secure cables

SECTION D'APPLICATION
AREA OF APPLICATION



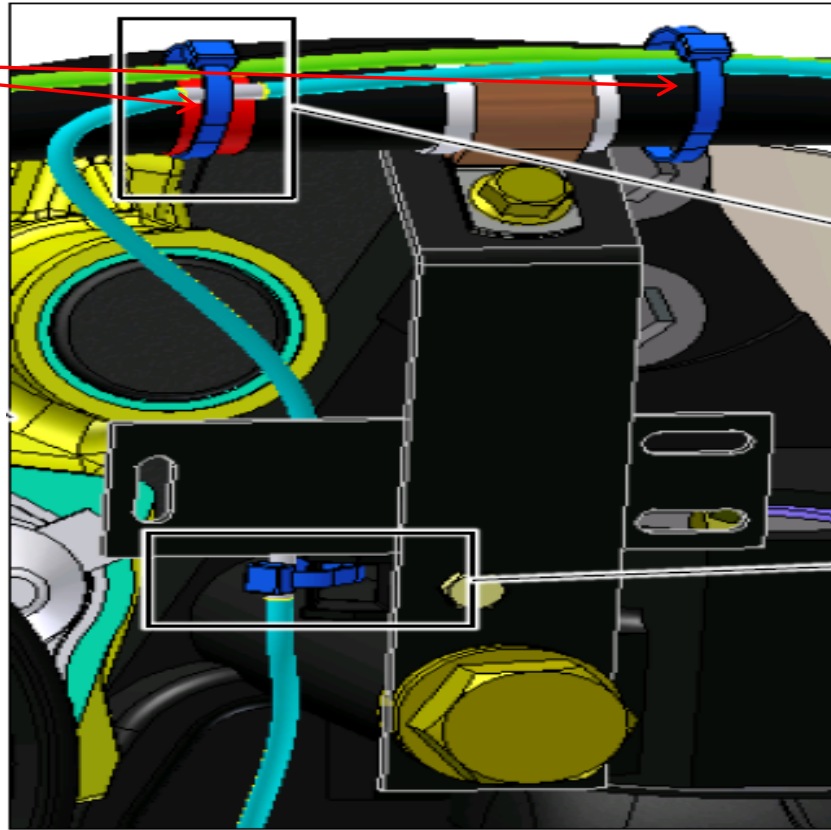
REV 01	?	CHANGÉ DESCRIPTION & ZONE	DESCRIPTION	NOVABUS	VERSION	C045SB	REP 0000	GM-408010-05
DATE	2018-12-07	AJOUT DE GAINE ADD SLEEVE	PROJ		DRWNG	E MANRIQUE	APPRVED	
REVISED BY	E MANRIQUE		MET		CHKD		SCALE	SHEET
							N1S	1//
					TITLE	S/A cable ABS	DRWNGING NO	REV
						essieux avant	C045SB	F

PARTS MUST BE TAKEN FROM LISTED FURNISHERS
UNLESS INDICATED OTHERWISE

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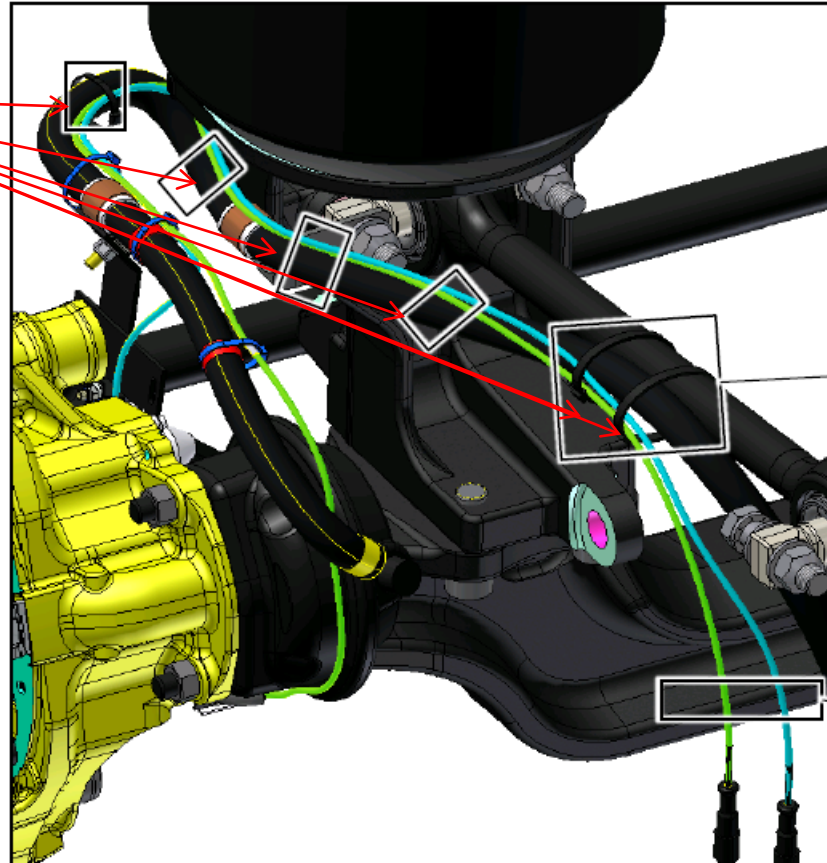
Re-secure cables on brake hose

N56339



Continued from previous slide

G5007994
X6



Measure brake hose to tire

- Be sure the 30MM requirement is met.
- If not, adjust hose as shown on previous slides

Remove jack stands and unlock bus

- Run bus until governor cut-out (approx 135PSI)
- Turn steering wheel lock to lock several times.
- Kneel bus and bring back to ride height.
- With bus running and qualified personnel in the driver seat, release parking brake and depress brake pedal to the floor, have a helper check for leaks at the brake hose connections with snoop or soapy water, watch for bubbles.

Leak check

- If no leaks are present, the bus can be released
- If leaks are detected, the connections must be disassembled, checked for damage and re-torqued to 34-38NM, do not over-torque.