BODY

MODEL: C2

SUBJECT: REQUIRED TOOLS FOR WARRANTABLE REPAIR

DATE: APRIL 10, 2017   **INDEX:** C2 13

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The following is a list of required service tools that need to be available to any technician performing a Thomas Built Buses warrantable repair. When possible, vendor information has been provided to add in service tool procurement.

This bulletin replaces Index 13, Bulletin 41R4. **The update pertains to four Powertrain Integration tools, which were previously "required", are now optional.**

<u>WARRANTY STATUS</u>:

INFORMATION ONLYI

PART NUMBER	DESCRIPTION	SUPPLIER
Coolant/Battery Refractometer	Coolant Tester	Local
DDE CA-12 DT	Cadex Battery Tester	Cadex Electronics 800.565.5228
R134A HVAC Charging/Recovery Station	Capable of Evacuating, Recovery, Recycling, Recharging Pressure Gauge Set, Oil Injection	Local
R134-A Leak Detector	Electronic	Local
KMX-J-26487C	Power Steering / Hydraulic Analyzer	SPX-Kent Moore
7991 SVTS-262 J-47168 J-47169	Cooling System Pressure Tester Cooling System Pressure Tester Pressure Cap Adapter Reservoir Tank Adapter	OTC Snap-on SPX-Kent Moore SPX-Kent Moore
DEF Urea Refractometer (PAL) (Required)	Catalog #4518	Atago USA, Inc. 425.637.2107
SPI400	Anglemaster	Spicer Service Parts 800.621.8084
J-29532	Pressurized Hydraulic Brake Bleeder	SPX-Kent Moore
Meritor/Wabco Toolbox (software)	Diagnostic Software	Meritor/Wabco (DTNA Access)
Digital Camera	Minimum 3 Mega Pixel Digital Camera	Local

Product Service Bulletin

PART NUMBER	DESCRIPTION	SUPPLIER
Torque Wrench 0-500 ft-lbs	Torque Wrench 0-500 ft-lbs.	Local
Torque Wrench 0-50 in-lbs.	Torque Wrench 0-50 in-lbs.	Local
Belt Tension Gauge	Belt Tension in lbs. of Deflection	Local
TBB 8620-0052 PN 125032	Datalink Adapter Datalink Adapter	Noregon 336.768.4227 Nexiq Technologies 586.731.6410
RPS CST1049	Crossview Mirror Bracket Installation Tool	PDC
Seal Driver Kit	Install Wheel End Seals	Local
Battery Charger	Charge Low / Maintain Batteries	Local
Diagnostic Link (software)	Diagnostic / Programming Software	DTNA Access
Parker PFDC & DFC-5	Diagnostic / Programming Software	Parker
*RGT021407X1 (FTL) 021407X1 (TRW)	Poppet Adjustment Screw	PDC TRW
*CN9BP-7	Sioux Pneumatic Installer for Blind Insert	Sioux Tools 866.259.7291
*985246 TBB PG490AirHP	Loctite Caulking Gun 10:1 Ratio Plexus Pneumatic Applicator Gun	Loctite PDC
*TBB 68000902	Foam Sealant Applicator Gun Cleaner, Ener 10	PDC
*TBB 68000939	Foam Sealant Applicator Gun, Ener 15 Pageris Tool	PDC
*Insite (software)	Diagnostic / Programming Software	Cummins
*Allison DOC (software)	Diagnostic / Programming Software	Allison
*DDC	Diagnostic / Programming Software	Detroit Diesel
*Heat Induction Tool	Inductor Max 3	Induction Innovations, Inc. 877.688.9633
*50072	Tire Runout Gauge	Myers Tire Company
*Gloss Meter	AG-4460	BYK-Gardner USA 800.343.7721
14004 (optional)	Crankshaft Rotation Tool (No A/C, single A/C	Powertrain Integration 844.747.6937
*14005 (as needed) NOTE: #14004 can be used as a substitute by removing the Dual A/C pulley	Crankshaft Rotation Tool (No A/C, single A/C	Powertrain Integration 844.747.6937
14006 (optional)	Stretch Belt Installer	Powertrain Integration 844.747.6937
*Recommended / Optional		

PART NUMBER	DESCRIPTION	SUPPLIER
*14007 (optional)	Water Pump Holding Tool	Powertrain Integration 844.747.6937
*14008 (optional)	Fan Nut Wrench	Powertrain Integration 844.747.6937
*14009 (as needed)	Valve Stem Seal Installer	Powertrain Integration 844.747.6937
*14015 (as needed) (same as Kent Moore Part #J 42851)	Front Cover Seal Installer	Powertrain Integration 844.747.6937
*14016 (as needed)	Flywheel Holding Tool	Powertrain Integration 844.747.6937
*14017 (as needed loaner)	Crankshaft Rear Seal Installer	Powertrain Integration 844.747.6937
*14018 (as needed loaner)	Crankshaft Rear Seal Puller	Powertrain Integration 844.747.6937
*14019 (as needed loaner)	Crankshaft Balancer & Sprocket Installer	Powertrain Integration 844.747.6937
*14020 **(optional)** or FTX-0083-X-01	LPG Evacuation Tank LPG Evacuation Tank	Powertrain Integration 844.747.6937 CleanFuel
*14021 **(optional)** or SVX-0012-X-02	LPI Service Tool Kit LPI Service Tool Kit	Powertrain Integration 844.747.6937 CleanFuel
*14023 (optional)	Air Compressor Pulley Removal Tool	Powertrain Integration 844.747.6937
*14012 (recommended)	PIthon™ 8.0L LPG Diagnostic Software**	Powertrain Integration 844.747.6937

**Part # 14012, The PIthon™ 8.0L LPG Diagnostic Software will be downloaded to the user's PC. The license is specific to the PC to which it is downloaded and cannot be duplicated or transferred. A Purchase Order number is necessary to process a request for Diagnostic Software. A Purchase Order number can be obtained by placing an order in the Powertrain Integration parts ordering site for Diagnostic Software part #14012. To request Software, please send an email to: service@ptintegration.com.

Please include the following in the email:
- Name of the user responsible for the PC
- Email address, phone number and street address (business address) for the user responsible for the PC
- Purchase Order number for the software. (Generated on the Powertrain Integration parts ordering site)

POWERTRAIN INTEGRATION SERVICE TOOLS ARE DIVIDED UP INTO THE FOLLOWING THREE CATEGORIES.

AS NEEDED - These tools are not commonly needed, but are required to do certain repairs without causing damage. They should be purchased "as needed".

AS NEEDED LOANERS - These tools are not commonly needed and have purchase costs which are prohibitive for most dealers to justify. In this case Service providers may request Loaner Tools by visiting the parts ordering portal at service.powertrainintegration.com or by calling 844-PI-POWER (747-6937). The service provider orders the tool just like a regular purchase, paying a deposit equal to the list price of the Loaner Tool along with shipping costs. Once the Loaner Tool is received back at Powertrain Integration in undamaged condition, the deposit amount will be refunded to the service provider.

OPTIONAL - These tools are not required to do the job but make it easier.