Technical Bulletin

Model(s)	Year	Eng. Code	Trans. Code	VIN Range From	VIN Range To
Passat	2013-2014	All	All	All	All

Condition

44 14 02 October 8, 2014 **2031087** Supersedes T.B. V441307 dated December 13, 2013 to include additional note in regards to load force balancing claiming. For information on Alignment, please see Tech Tip 44-13-03 – Alignment Overview.

Vehicle Drift-Pull

This Technical Bulletin provides information on improving vehicle drift/pull using selective tire placement. The information provided is based on the Hunter GSP9700 with StraightTrak® (VAS 6230x) and John Bean RFV2000 with OptiLine® (VAS 6311A) diagnostic balancer. The diagnostic procedures for selective tire placement, to improve vehicle drift/pull, will require the use of one of the diagnostic balancers previously mentioned.

The Service Information in This Technical Service Bulletin is divided into Three (3) Sections:

Section 1: Pre-Delivery Inspection (PDI), vehicle drift/pull concerns.

Section 2: Customer concerns for vehicle drift/pull

Section 3: Using Volkswagen approved diagnostic balancers to address vehicle drift/pull

Technical Background

The information provided in this bulletin is intended to assist technicians maximize the use of the approved diagnostic tire balancers to improve vehicle drift/pull.

Note:

The repair procedures outlined in this bulletin, to address vehicle drift/pull will be covered ONLY ONCE under warranty, within the first 3 Months/3000 miles of the warranty in service date.

Note:

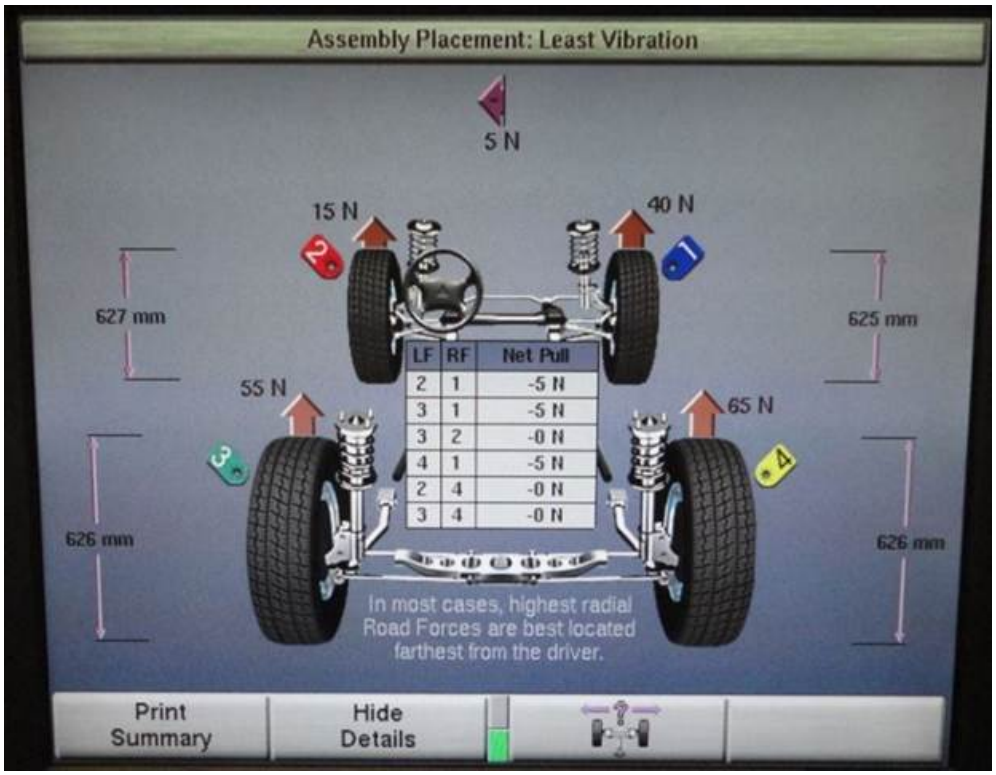
Email a scanned copy or a picture of the tire net pull information to VWGoA.Chassis@vw.com, and file the printed copy with the Repair Order. If a Volkswagen Technical Assistance (VTA) ticket was opened, the tire net pull information should be attached, before the VTA is closed. Please note that this is standard procedure for all warranty repairs.

Email must include the following information:

- VIN
- Repair Order (RO) Number
- Mileage (from RO)
- Dealer Code

The tire net pull data must be a legible scanned copy of the original print or screen capture (picture). The recommended formats are PDF or JPEG.

Below are examples of acceptable attachments:



Example 1. Hunter GSP 9700 Gen 3.

Example 2. Hunter GSP9700 Gen. 4 Touch

Example 3. John Bean RFV2000

Production Solution

Extensive analysis was conducted by Volkswagen for concerns of vehicle drift/pull and it has been determined that this condition is NOT caused by any production issues with the vehicle's steering or suspension systems. The main contributors for concerns of vehicle drift/pull are tire pull and road surface tilt (road crown). The information provided in this bulletin will assist the technician optimize the straight ahead tracking of the vehicle for customer satisfaction.

Service

SECTION 1. Pre-Delivery Inspection (PDI), vehicle drift/pull concerns

If it has been determined that a vehicle has a significant drift/pull on the PDI test drive, test drive a like vehicle on the same route and compare the drift (see test drive tip under section 2, step 2). If the drift is similar, no further repair is necessary. If it has been determined that the drift is excessive compared to the like vehicle, perform StraightTrak® or Opti-line®, open a Volkswagen Technical Assistance (VTA) ticket with the tire results attached and contact the Volkswagen Technical Helpline at 800-678-2389.

SECTION 2. Customer concerns for vehicle drift/pull

Vehicle drift/pull diagnosis

Note:

Many conditions related and non-related to a vehicle's suspension and/or tires can cause a vehicle to drift/pull. The tilt of the road surface (Road Crown) will have the most significant effect on the time it takes for a properly aligned vehicle to drift out of its lane. Always test drive the vehicle to determine that the vehicle drift is excessive before making any repairs or adjustments.

For customer concerns of vehicle drift/pull on vehicles that falls within the warrantable repair period, follow the steps below to optimize the vehicle straight ahead tracking performance.

Step 1

Check and adjust tire pressures to the specified pressure on the driver's side "B" pillar trim label.

Tip:

Hand held tire pressure gauges are most times not as accurate as the calibrated gauges on the tire balancer or the Alignment equipment. Check the accuracy of hand held gauges on a regular basis by comparing the reading to the reading taken on the tire balancer or alignment equipment.

Step 2

Test Drive the vehicle to determine the drift/pull.

Tip:

Test drive should be performed on a fairly flat road surface. If test drive is done on a crowned road, switch lanes to check if the vehicle will follow the crown in both directions. A vehicle that has a significant drift/pull will tend to pull against the direction of the road tilt.

Step 3

Selective tire placement to improve vehicle drift/pull

Use the Hunter GSP9700 Balance with StraightTrak® or John Bean RFV200 with Opti-line® to determine the best tire placement to improve vehicle drift/pull.

Note:

If you are unable to improve the vehicle drift using selective tire placement, open a VTA ticket and contact the Technical Helpline at 800-678-2389.

Section 3. Using Volkswagen approved diagnostic balancers to address vehicle drift/pull

Hunter GSP9700 with StraightTrak®

Tip

For details of using StraightTrak® on the Hunter GSP9700 please reference the operation manual. A copy of the document is located in Service Net under Workshop Equipment > Instruction Books > Hunter GSP9700 Road Force Wheel Balancer Operating Instructions.

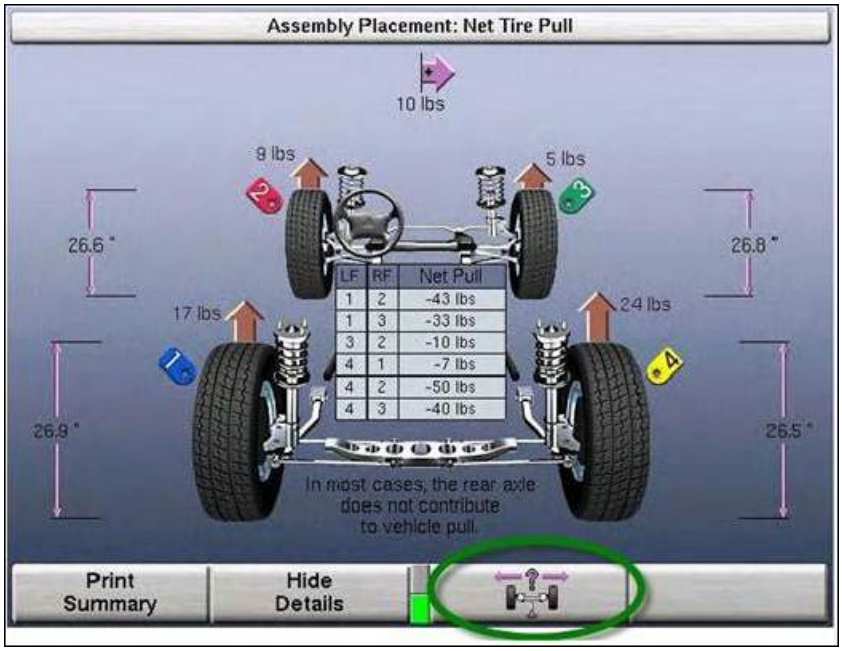


Figure 1

When the suggested tire placements are displayed (Figure 1), select the combination that will best suit the vehicle driving conditions and then test drive the vehicle to check vehicle drift/pull.

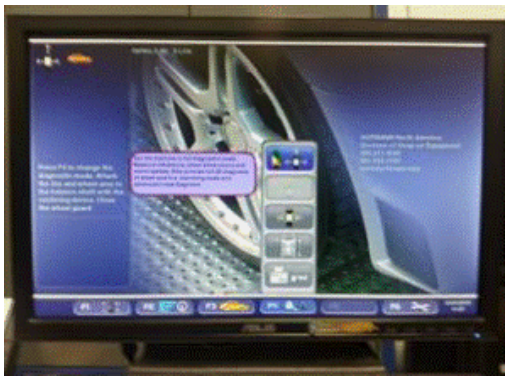
Tip:

The highest net pull is not always the ideal placement for the tires. A high net pull could cause the vehicle to start pulling in the opposite direction.

It is always best to select the tire placement that will place a tire with high Road Force Variation (RFV) to the rear of the vehicle. For example, in figure 1 the tire placement to achieve -7 lbs net pull to the left will put tire # 4 on the left front of the vehicle. This may cause the customer to complain of vibration.

John Beam RFV2000 with OptiLine®

The information below is a guide on how to use the Opti-line® feature on the John Beam RFV2000 balancer. Please refer to the operation manual for more information about the equipment.



Make sure balancer is setup in 3D Diagnostics mode and that Opti-line® is enabled.

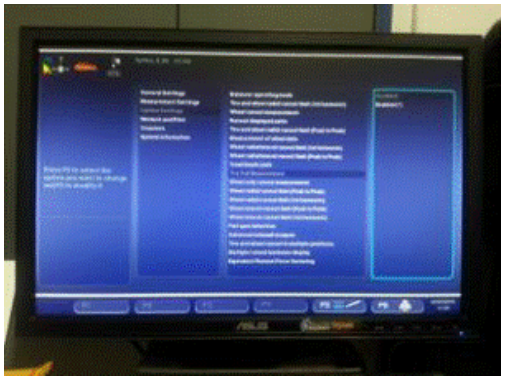
Tip:

Enabling 3D Diagnostics – From the home screen press F3 and select 3D Diagnostics.

Figure 2

Enabling Opti-line® – From the home screen press F6 and select settings.

Figure 3



Select -> Optima Settings, -> tire pull measurement -> enable (Figure 4).

Return to the Home Screen and press F1 to go into the balance screen, then F3 to go into the optima screen. Press F5 to open the Opti-line® menu and select Enable Opti-line® (only option).

Figure 4

- Label wheels location on the car before removing. For example, LF (Left Front), RF (Right Front), etc.
- Mount the tire on the balancer using the flange plate with stud kit. Please note that in the Opti-line® function the balancer will number the wheels sequentially based on the order mounted.
- Balance each tires and add the tire to the wheel set.

Adding tires to wheel set

To open Opti-line® from the balance screen press F3 to open the Optima screen.

Figure 5

Press F5 to bring up the Opti-line® menu and select open Opti-line® screen.

Figure 6

First wheel balanced automatically selected as wheel # 1.

Figure 7

Press F3 to add the tire to the wheel set. Label the wheel # 1 (use chalk or accessory tags provided with the balancer) and repeat the process for the remaining wheels.

Tip:

Labeling the wheels is very important for further diagnosis. When the wheel set is completed each wheel should have two (2) labels. The wheel location on the car (LF,RF, LR & RR) and the wheel position in the wheel set (1,2,3,4)

Figure 8

Figure 9

When all the wheels are entered in the wheel set, press F5 and select “Least Pull”.

Tip:

Take a screen print or screen capture (picture) of the recommended wheel placement.

- Install the wheels in the suggested order and test drive the vehicle to check vehicle drift/pull.

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Warranty

Note:

The repair procedures outlined in this bulletin, to address vehicle drift/pull will be covered ONLY ONCE under warranty, within the first 3 Months/3000 miles of the warranty in service date.

Use PID 4405 for all claims related to the service procedure outlined in the bulletin. For drifting/pulling concern caused by a component failure or alignment issues, the claim should be filed under the PID for the causal part or the concern group.

To determine if this procedure is covered under Warranty, always refer to the Warranty Policies and Procedures Manual [1]					
Model(s)	**Year(s)**	**Eng. Code(s)**	**Trans. Code(s)**	**VIN Range From**	**VIN Range To**
Passat	2013-2014	All	All	All	All
SAGA Coding					
Claim Type:	Use applicable Claim Type [1]				
Service Number:	**Damage Code**	**HST**	**Damage Location (Depends on Service No.)**		
4405	0013	--	Use applicable when indicated in ElsaWeb (L/R)		
Parts Manufacturer	**Passat**	**WWO** [2]			
Labor Operation [3] **: Remove and Install 4 Wheels.**	44052004 = 50 TU				
Labor Operation [3] **: Perform StraightTrak/OptiLine (Front & Rear axle).**	44059499 = 140 TU MAX. [5]				
Causal Part: Select labor operation	44059499				
Diagnostic Time [4]					
GFF Time expenditure	01500000 = 00 TU max.	NO			
Road Test	01210002 = 10 TU 01210004 = 10 TU	YES			

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Technical Diagnosis	**01320000 = 00 TU**	**NO**
Claim Comment: Input "As per Technical Bulletin 2031087" in comment section of Warranty Claim.		

[1] Vehicle may be outside any Warranty in which case this Technical Bulletin is informational only

[2] Code per warranty vendor code policy.

[3] Labor Time Units (TUs) are subject to change with ELSA updates.

[4] Documentation required per Warranty Policies and Procedures Manual.

[5] Average repair time is 70 TU. Up to 140 time units may be required. Supporting punch time required.

Required Parts and Tools

No special parts required.

Tool Description	Tool No:
Tire Balancer	**VAS 6230A or Equivalent** **VAS 6311A or Equivalent**

Additional Information

All part and service references provided in this Technical Bulletin are subject to change and/or removal. Always check with your Parts Dept. and Repair Manuals for the latest information.