File in Section: -

Bulletin No.: PIC5975A

Date: November, 2014

## PRELIMINARY INFORMATION

Subject: Steering Pulls To The Right At Highway Speeds

Models: 2014 Chevrolet Corvette

This PI was superseded to update Recommendation/Instructions. Please discard PIC5975.

The following diagnosis might be helpful if the vehicle exhibits the symptom(s) described in this PI.

## Condition/Concern

A customer may comment that the vehicle steering pulls to the right while trying to maintain a straight line heading at highway speeds. The pull is correctable.

**Note:** If the vehicle drives straight ahead without a pull/drift but the steering wheel is off-angle, then this is a steering wheel angle concern for which this PI does not apply; refer to the Steering Wheel Angle and/or Front Toe Adjustment procedure in SI to correct a steering wheel angle concern

## Recommendation/Instructions

**Note:** Be sure to capture "Before" and "After" wheel alignment measurements whenever an alignment is performed.

1. The pull can be minor, but still correctable. Verify that this is a pull condition by lightly holding the steering wheel while driving the vehicle in a straight line at 60-65MPH. Hold the steering wheel "lightly" so as to notice if the car has a tendency to drift or pull to one side of the lane or the other. Document the direction of the pull / drift and rate the condition by describing the amount of pull / drift on a scale of 1-10, with 10 being no pull / drift and 1 being a severe pull. Do this evaluation in both left and right sloping lanes as the vehicle will follow the road crown/camber.

**Note:** If the vehicle follows the road crown/camber, this is normal operation and the vehicle is performing to design intent. As such, do NOT perform the following steps.

- 2. Do a left to right front wheel/tire assembly swap then evaluate the vehicle for pull / drift as in step 1 and document the results. If the pull / drift direction is opposite, then follow the Radial Tire Lead/Pull correction procedure noted in SI to isolate the tire causing the concern. Otherwise, continue to next step if pull / drift in the same direction is still present.
- 3. Put the vehicle on an alignment rack. Record the "Before" measurements and modify the wheel alignment to counteract the pull or drift condition. Vehicles will typically pull to the side with more positive camber, so, if the vehicle is pulling to the right, increase camber on the left, or decrease camber on the right. Try to stay within the current wheel alignment specifications in SI. If, after exhausting standard Vehicle Leads/Pulls diagnostics and the above steps, a pull to the right condition still exists, adjust the front cross-camber by up to 1.0 degree. (This is currently outside the specifications noted in SI.) Evaluate the vehicle for pull in both left and right sloping road crown/camber road surfaces and verify normal operation mentioned in step 1.
- 4. Assuming cross-camber is not causing the right pull / drift concern by being near the negative limit noted in SI, if the pull concern still exists, increase caster on the right and/or /decrease caster on the left. Once again, try to stay within the current wheel alignment specifications in SI, however, if necessary, you may use cross-caster down to, or as far negative as 1.0 degree (which is currently outside the specifications noted in SI). Split the left and right caster about the current nominal caster values noted in SI by increasing one side of the vehicle by the same amount decreased on the other side. Strive to remain within the wheel alignment specifications noted in SI and this PI. Evaluate vehicle for pull in both left and right sloping road crown/camber road conditions and verify normal operation mentioned in step 1. Be sure to record the "After" wheel alignment measurements to include with the "Before" measurements for the warranty claim.

## **Warranty Information**

For vehicles repaired under warranty use:

Labor Operation	Description	Labor Time
8070032	Wheel Alignment Measurement	Use Published Labor Operation Time

Please follow this diagnostic or repair process thoroughly and complete each step. If the condition exhibited is resolved without completing every step, the remaining steps do not need to be performed.