SUBARU®

NUMBER 05-29-92

# SERVICE BULLETIN

**APPLICABILITY** ALL XT MODELS

**DATE** 05-01-92

**SUBJECT:** WHEEL ALIGNMENT SPECIFICATIONS

Use the revised alignment information in this bulletin to correct Section 4-1 suspension "Wheel Alignment" of the applicable service manual.

SIGNIFICANT CHANGES

I. Rear wheel toe angles are caluclated in total toe which is the sum of both right and left wheel angles per axle. See Figure 1 for measurement points.

TOE MEASUREMENTS

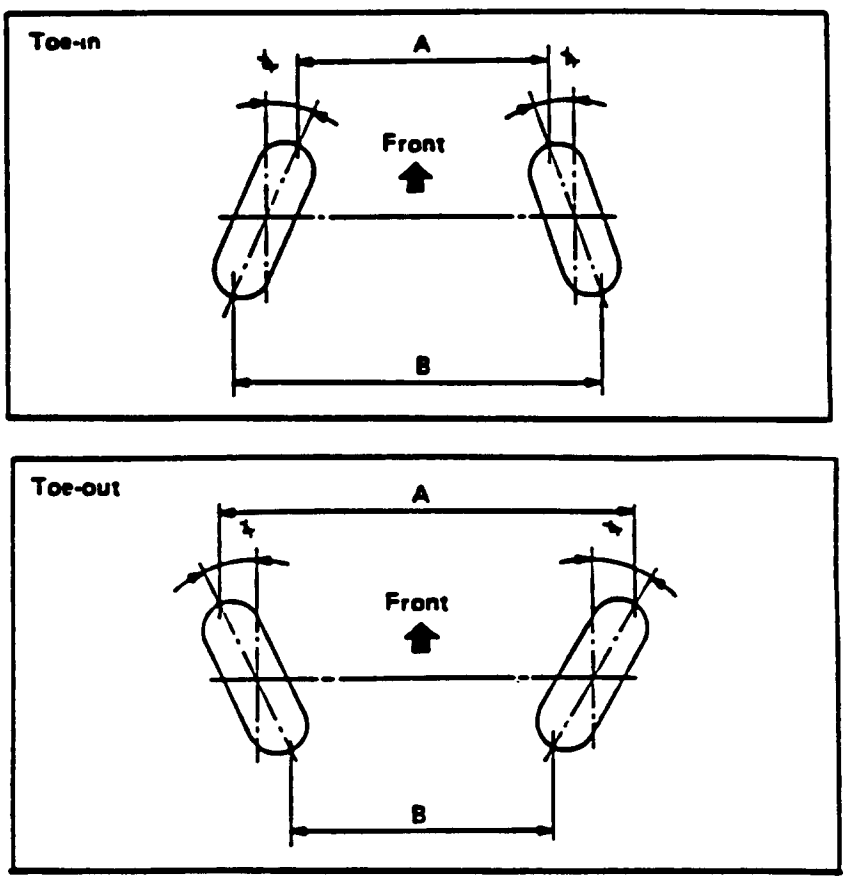


Figure 1

| TOTAL TOE BY MEASUREMENT | TOTAL TOE BY ANGLE OF RH & LH WHEELS |
|---|---|
| B-A = 0 --- OPTIMUM SPEC. | = L + R = 0 - OPTIMUM SPEC. |
| B > A --- TOE IN | = L + R > 0 --- OUT |
| B < A --- TOE OUT | = L + R < 0 --- IN |

II. Thrust angle measurements for rear wheel tracking is now included. Thrust angle is defined as the path that the rear wheels will take, which is geometrically aligned with the body centerline.

**NOTE: DUE TO MINOR ACCIDENTS, HITTING CURBS OR POTHOLES AND OTHER RELATED ROAD HAZARDS, ONE OF THE REAR WHEELS MAY CHANGE POSITION. THIS DIRECTLY AFFECTS THE THRUST ANGLE BY PREVENTING THE REAR WHEELS FROM TRACKING BEHIND THE FRONT WHEELS. THIS CAN RESULT IN WHEEL SCRUBBING WHICH CAN CAUSE: UNUSUAL AND ACCELERATED TIRE WEAR, A DECREASE IN FUEL ECONOMY AND LESS THAN OPTIMUM HANDLING.**

Position the vehicle on a four wheel alignment machine. The machine will determine the centerline difference of the front and rear axles. See Figure 2.

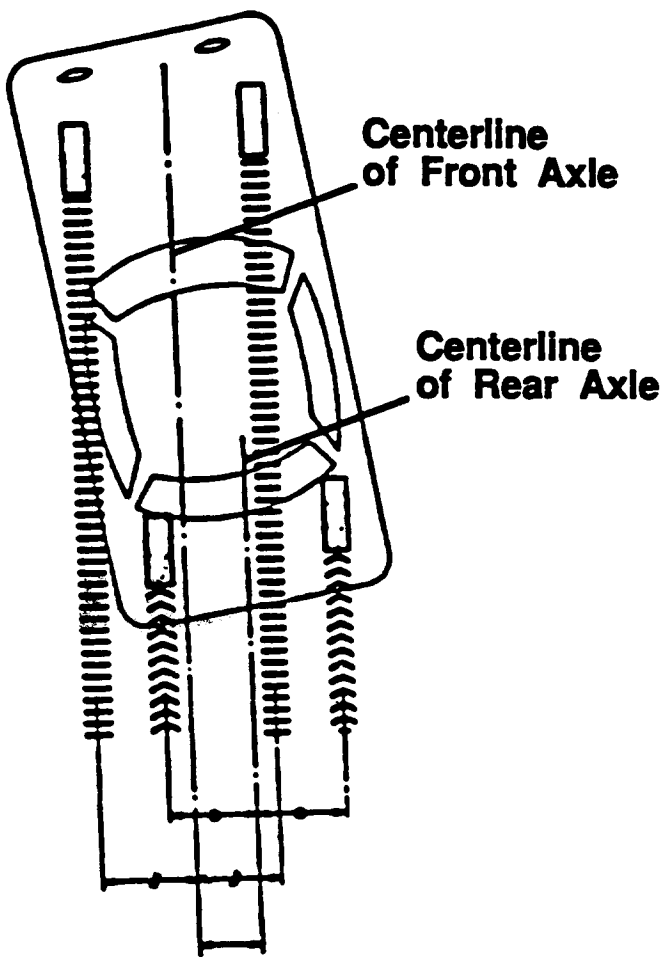


**Figure 2**

| | | | | FWD | | 4WD | |
|---|---|---|---|---|---|---|---|
| | | | | 1800 | 2700 | 1800 | 2700 |
| | | | | NORMAL | MINIMUM | MAXIMUM | |
| Rear | Toe | Service Limit | mm (in) | 0 (0) IN | 3 (0.12) IN | 3 (0.12) OUT | |
| | | | Total Angle of RH & LH | 0° | 0° 18' IN | 0° 18' OUT | |
| | | Service Standard | mm (in) | 0 (0) IN | 2 (0.08) IN | 2 (0.08) OUT | |
| | | | Total Angle of RH & LH | 0° | 0° 12' IN | 0° 12' OUT | |
| | Thrust Angle | Service Limit | Calculated Angle | 0° | +0° 30' | -0° 30' | |
| | | Service Standard | Calculated Angle | 0° | +0° 20' | -0° 20' | |

NOTE: USE THIS CHART TO UPDATE THE FIGURE FOR "WHEEL ALIGNMENT SPECIFICATIONS" IN THE APPLICABLE SERVICE MANUAL.



| CONVERSION OF MINUTES TO DECIMAL FRACTIONS OF HOURS AND DEGREES | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | DEGREES (0) | | | | | | | | | |
| MINUTES | 0' | 1' | 2' | 3' | 4' | 5' | 6' | 7' | 8' | 9' |
| 0' | - | 0.017 | 0.033 | 0.050 | 0.067 | 0.083 | 0.100 | 0.117 | 0.133 | 0.150 |
| 10' | 0.167 | 0.183 | 0.200 | 0.217 | 0.233 | 0.250 | 0.267 | 0.283 | 0.300 | 0.317 |
| 20' | 0.333 | 0.350 | 0.367 | 0.383 | 0.400 | 0.417 | 0.433 | 0.450 | 0.467 | 0.483 |
| 30' | 0.500 | 0.517 | 0.533 | 0.550 | 0.567 | 0.583 | 0.600 | 0.617 | 0.633 | 0.650 |
| 40' | 0.667 | 0.683 | 0.700 | 0.717 | 0.733 | 0.750 | 0.767 | 0.783 | 0.800 | 0.817 |
| 50' | 0.833 | 0.850 | 0.867 | 0.883 | 0.900 | 0.917 | 0.933 | 0.950 | 0.967 | 0.983 |