MANUAL WHEEL ALIGNMENT SETUP

OBJECTIVE:

Setup a string line so that it is parallel to the Car Central Axes.

NOMENCLATURE:

F.A.   FRONT AXEL

R.A.   REAR AXEL

S.W.   STEERING WHEEL

T_F TRACK WIDTH (FRONT)

T_R TRACK WIDTH (REAR)

D_F STRING TO WHEEL DISTANCE (FRONT)

D_R STRING TO WHEEL DISTANCE (REAR)

PROCEDURE:

1- Find out from your car owner's manual or other sources what T_F & T_R are.
2- Set up the string at the rear of the car at an arbitrary distance D_R from the rear wheel.
3- Calculate D_F from the following equation and set up the string at the front of the car.

$$D_F = D_R - \frac{1}{2}(T_F - T_R)$$

4- Verify that D_R and D_F are set correctly

EXAMPLE:

1982 Mercedes Benz 300TD (W123 Chassis)

$$T_F = 1488 \; mm$$

$$T_R = 1446 \; mm$$

$$D_F = D_R - \frac{1}{2}(1488 - 1446) = D_R - 21mm$$