

CHANGEOVER FROM CONVENTIONAL TO WIDE BASE TUBELESS TIRES

FRONT APPLICATIONS

Required Information for Duplex® Changeover Calculations

Determine the following information and insert into the Calculation Below

*OBTAIN THIS INFORMATION FROM THE TRUCK
and THE CHOICE FOR THE NEW WIDE BASE TIRE*

*OBTAIN THIS INFORMATION FROM THE ACCURIDE
CATALOG AND/OR TIRE DATA BOOK*

Existing Wheel/Rim Part Number		Existing Wheel Inset or Rim Offset ⁽¹⁾	
Existing Tire Size		Existing Tire Section Width ⁽²⁾	
Proposed Wide Base Tire Size		Proposed Wide Base Tire Section Width ⁽³⁾	
Existing Overall Width (See Figure 1 - page 45)			

- ⁽¹⁾ DETERMINE THE EXISTING WHEEL INSET OR RIM OFFSET FROM THE PART NUMBER AND THE CATALOG INFORMATION. INSET IS OFFSET MINUS DISC THICKNESS.
- ⁽²⁾ DETERMINE THE EXISTING TIRE SECTION WIDTH FROM THE CHART ON PAGE 46.
- ⁽³⁾ DETERMINE THE PROPOSED WHEEL/RIM WIDTH AND WIDE BASE TIRE SECTION WIDTH FROM THE CHART ON PAGE 45. THE NEW DUPLEX® WHEEL INSET OR RIM OFFSET IS DETERMINED BY INSERTING THE ABOVE INFORMATION INTO THE FOLLOWING CALCULATION.

Wide Base Changeover Calculation

Existing Wheel Inset or Rim Offset	+	Existing Tire Section ÷2 Width	=	-	Proposed Wide Base Tire ÷2 Section Width	=	NEW DUPLEX® WHEEL INSET OR RIM OFFSET

REFER TO THE DUPLEX PART NUMBER LISTINGS ON PAGES 32 - 34 AND CHOOSE THE NEXT SMALLER AVAILABLE WHEEL INSET OR RIM OFFSET FOR THIS APPLICATION. THIS CHOICE WILL MAINTAIN THE EXISTING INSIDE CLEARANCE BETWEEN THE TIRE OR WHEEL/RIM AND THE FRAME/SUSPENSION. IF ADEQUATE INSIDE CLEARANCE EXISTS, THE NEXT LARGER WHEEL INSET OR RIM OFFSET MAY BE CHOSEN.

THE CHANGE IN THE OVERALL WIDTH OF THE VEHICLE SHOULD BE DETERMINED TO VERIFY THAT THE NEW WIDTH IS NOT OVER THE MAXIMUM ALLOWED BY LAW. USE THE FOLLOWING CALCULATION TO DETERMINE THE NEW OVERALL WIDTH. THIS NEW WIDTH SHOULD BE CHECKED AGAINST FEDERAL, STATE AND LOCAL REGULATIONS TO ASSURE COMPLIANCE WITH MAXIMUM WIDTH RESTRICTIONS.

Existing Overall Width	+2x	Existing Wheel Inset or Rim Offset	-	Existing Tire Section Width	-2x	New Duplex® Wheel Inset or Rim Offset	+	Wide Base Tire Section Width	=	NEW OVERALL WIDTH

IT IS RECOMMENDED THAT THE WHEEL/RIM BE MOUNTED ON THE TRUCK WITHOUT THE TIRE TO VERIFY CLEARANCES PRIOR TO TIRE MOUNTING. PRODUCTS WHICH HAVE HAD A TIRE MOUNTED MAY NOT BE RETURNED.

CHANGEOVER FROM CONVENTIONAL TO WIDE BASE TUBELESS TIRES FRONT APPLICATIONS CONTINUED

Wide Base Tire Section Width and Dimension Chart		
Information from The Tire & Rim Association 1996 Yearbook		
Tire Size	Rim Width	Tire Section Width
15★19.5, 22.5	12.25	15.50
385/65★22.5	12.25	15.51
16.5★19.5, 22.5	13.00 12.25	16.75 16.45 ⁽¹⁾
425/65★22.5	12.25 13.00	16.61 16.91 ⁽¹⁾
445/65★19.5, 22.5	13.00 14.00	17.48 17.88 ⁽¹⁾
18★19.5, 22.5	13.00	17.60

⁽¹⁾This value was calculated by the following formula: Tire section width will change 0.1" each 1/4" change in rim width from the design rim width.

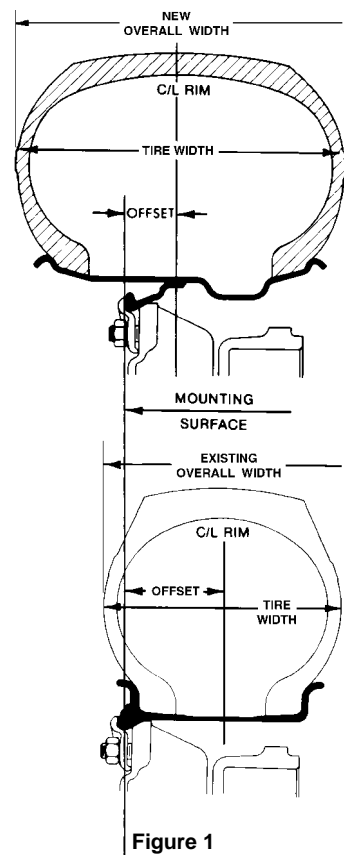


Figure 1

REAR APPLICATIONS

- Since the space requirements are less for one tire, offset is selected to track the tire in the desired location. These are the most common options:

1. **Wide Track** – Where overall width is maintained.
2. **Centerline Alignment** – Track is the same as with dual tires.
3. **Inside Alignment** – Inside clearance is maintained.

Duplex[®] Demountable Rims Rear Application Chart			
Rim Size	Vehicle Track Change From Duals ⁽¹⁾	Spacer Width Replaced ⁽²⁾	Part Number
22.5 x 12.25	Increase 0.75"	4"	31658
22.5 x 13.00	No Change	4"	31659
	Increase 5.50"	4"	28551

⁽¹⁾The vehicle track width will increase from duals as shown when the rim is mounted with the part number stamped outboard. The part number is stamped on the underside of the bead-seat as illustrated on the right. The rims that provide "no change" in vehicle track width from duals may be installed either way for best valve access. If those rims which reflect an increase in vehicle track width are reversed on cast spoke wheels, track will be decreased by the amount indicated and vehicle stability may be affected.

⁽²⁾This dimension determines the clamp and spacer match on a given spoke length. The cast spoke wheel must be designated for 20" diameter rims with 8.0" or less width.

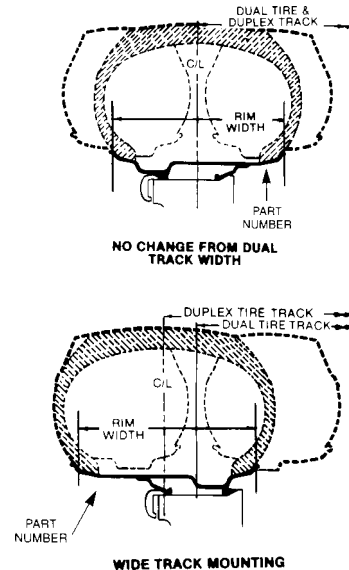


Figure 2