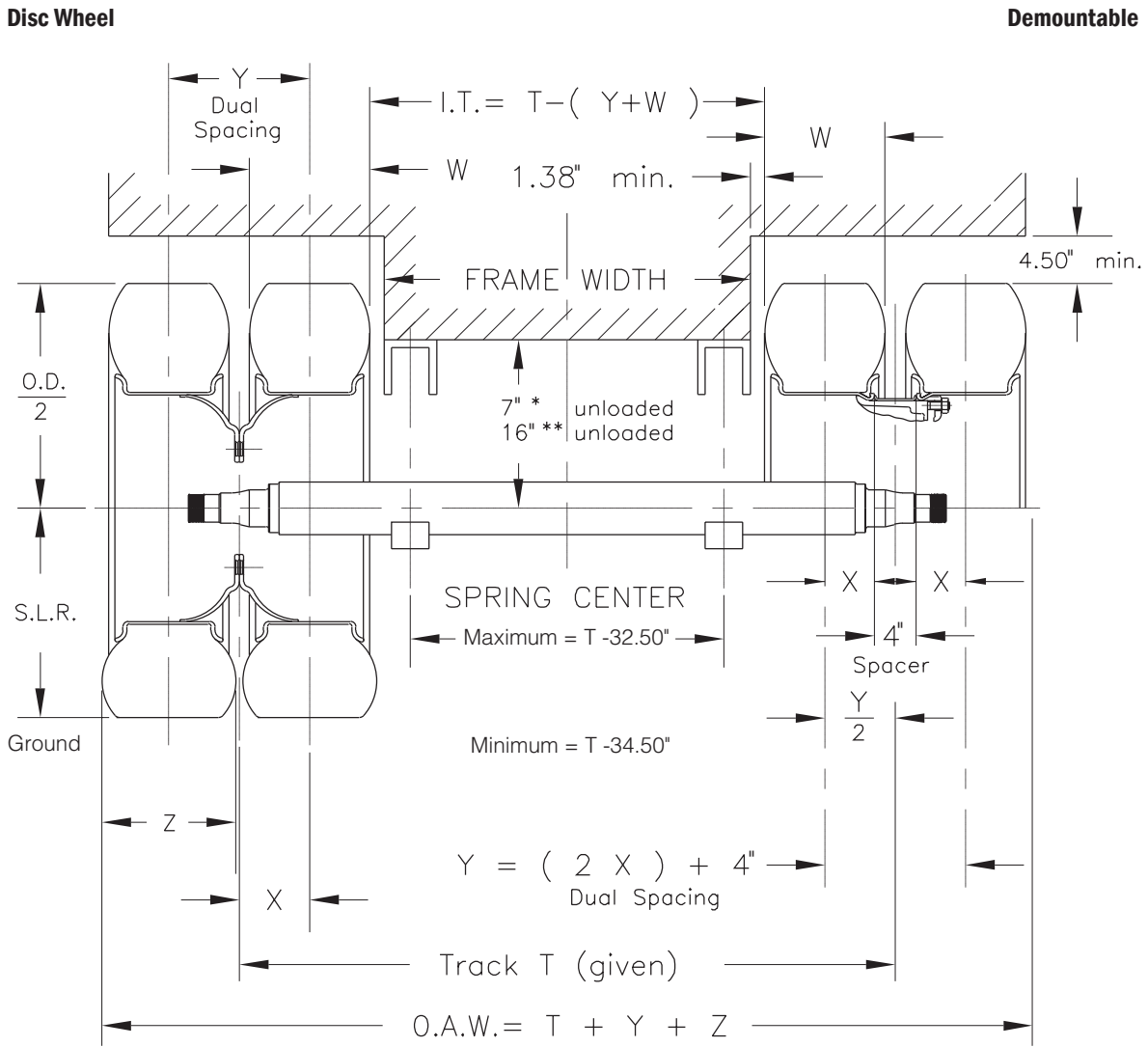


Spring Center - for absolute maximum refer to calculation procedures.  
 (T - 34.50" will satisfy most needs)



\* Underslung  
 \*\* Overslung

Using 3/4" seat height and 3 leaf - 354-00 spring (standard Dexter HAP Kits)

# Determining Maximum Spring Centers for 22.5K – 27.5K Axles



1. Typical over-the-road 96" wide semi-trailers with leaf spring suspensions are equipped with axles having 71" or 71 1/2" axle track and either 38" or 39" spring centers. 102" wide trailers use axles having 77" or 77 1/2" axle track and either 44" or 45" spring centers.
  2. Axle track should be the widest possible with the overall width of the outer dual tires not exceeding the maximum trailer width of either 96" or 102" as specified by law. Verify with State and Federal laws for the type of roads the trailer is traveling.
  3. Spring centers should be placed as wide as possible to aid in resisting trailer rolling movement - side-to-side sway. Maximum spring center is governed by either the distance between drums or the distance between the inner dual tires of a given axle. Spring centers less than the minimum specified will reduce axle carrying capacity.
  4. Begin by selecting appropriate dual tire capacity and rim or wheel capacity to adequately haul the load for which the trailer was designed.
- tire) and the Y dimension (dual wheel spacing of appropriate wheels for your selected tire) and add them together. Subtract this number from your track dimension to obtain the dimension between the inner dual tire set.
6. Compare these two calculated numbers – Factor 1 and Factor 2 – and select the smallest (narrowest) of the two.
  7. Subtract 2.75 from the above selected smallest number. This should be your outside to outside widest frame width for your given track. The minimum frame clearance per side is 1.375, then is multiplied by 2 to get 2.75.
  8. Determine the width of your suspension system hangers, typically 6.00 inches for H-9700 Hutch suspension. If other than Hutch H-9700 are used, determine the location of your selected suspension system's hangers and where they are to be positioned laterally on the trailer frame member. Consult the manufacturer of your suspension system if the location is not detailed in their catalog. Determine the distance from frame width to centerline of suspension attachment to the axle beam tube relative to this hanger position.
  9. Subtract this number from outside frame width to obtain the maximum spring center allowed.

## Factor 1 - Distance between drums

- A. Determine the hub group required to mate with the tires, rims or wheels previously selected.
- B. From the hub group section of this catalog, locate the proper hub & drum or wheel & drum.
- C. **For Demountable Rims.** Obtain the B and C dimensions for your selected hub group in this catalog, add them together, then multiply by 2. Subtract this number from your track dimension to obtain the dimension between drums.
- D. **For Disc Wheels.** Obtain the B and C dimensions for your selected hub group in this catalog. Next, determine the wheel's disc thickness at the mounting area. Add these three figures together, then multiply by 2. Subtract this number from your track dimension to obtain the dimension between drums.

## Factor 2 - Distance between inner tires

5. Obtain the tire width dimension for the tires previously selected. Dimensions shown in this catalog may vary from manufacturer to manufacturer. Check your tire manufacturer's latest tire catalog to be sure of the dimensions.
  - A. **For Demountable Rims.** From the "Tires" section, obtain the W dimension (width of your selected tire) and the Y dimension (dual rim spacing of appropriate rims for your selected tire) and add them together. Subtract this number from your track dimension to obtain the dimension between the inner dual tire set.
  - B. **For Disc Wheels.** From the "Wheels & Rims" section, obtain the W dimension (width of your selected

Brake Size	Tire Size (Load Range)	Design Rim Width	**Dual Tire Capacity per Tire (lbs.)	Max Inflation P.S.I	O.D.*	Tire Width W	Loaded Section Width Z	S.L.R.*	Min. Dual Spacing
12 1/4"	10R17.5 (H)	6.75HC	4410	115	33.7	9.4	10.4	15.6	10.9
12 1/4"	215/75R17.5 (H)	6.75HC	4540	125	30.6	8.4	9.3	14	9.6
12 1/4"	235/75R17.5 (H)	6.75HC	5675	125	31.8	9.2	10.1	14.5	10.3
12 1/4"	245/70R19.5 (G)	6.75	4375	100	33.0	10.2	11.0	15.3	11.0
12 1/4"	265/70R19.5 (G)	6.75	5070	120	34.0	10.3	11.2	15.9	11.6
16 1/2"	255/70R22.5 (H)	7.50	5070	115	36.6	9.8	10.6	17.1	11.3
16 1/2"	295/75R22.5 (G)	8.25	5675	100	40.2	11.2	12.2	18.8	11.2
16 1/2"	11R22.5 (G)	8.25	5750	105	41.5	10.8	11.9	19.4	12.5
16 1/2"	11R22.5 (H)	8.25	5800	110	41.5	10.8	11.9	19.4	12.5
16 1/2"	11R24.5 (G)	8.25	6000	105	43.5	10.8	11.9	20.4	12.5
16 1/2"	11R24.5 (H)	8.25	6170	110	43.5	10.8	11.9	20.4	12.5

\* Dimensions shown may vary slightly from manufacturer to manufacturer

\*\* Dual Rating

Rim Contour	Description	Wheel/Rim Capacity Each (lbs.)	Max. Inflation (P.S.I.)	Mtg. Hole Pattern	Wheel Center Disc Thickness	Offset X	Dual Spacing Y
17.5 x 6.75 HC	Rim	4805	125	Demountable 4" Spacer	n/a	3.90"	11.80"
17.5 x 6.75 HC	Steel Wheel	5070	125	10 Hole 8.75" BC 6.50" Bore Ball Seat	.42"	6.19"	12.38"
17.5 x 6.75 HC	Steel Wheel	5355	125	8 Hole 275mm BC 221mm Bore Pilot Mounting	.437"	5.60"	11.20"
19.5 x 6.75 RW	Steel Wheel	5000	120	8 Hole 275mm BC 221mm Bore Pilot Mounting	.437"	5.60"	11.2"
22.5 x 7.50	Steel Wheel	6610	120	10 Hole 11 1/4" BC 8.72" Bore Ball Seat	.437"	6.44"	12.88"
22.5 x 8.25	Steel Wheel	7400	120	10 Hole 11 1/4" BC 8.72" Bore Ball Seat	.437"	6.62"	13.25"
22.5 x 8.25	Steel Wheel	7400	120	10 Hole 285.75mm BC 220mm Bore Pilot Mounting	.437"	6.62"	13.25"
24.5 x 8.25	Steel Wheel	7300	120	10 Hole 285.75mm BC 220mm Bore Pilot Mounting	.437"	6.62"	13.25"