

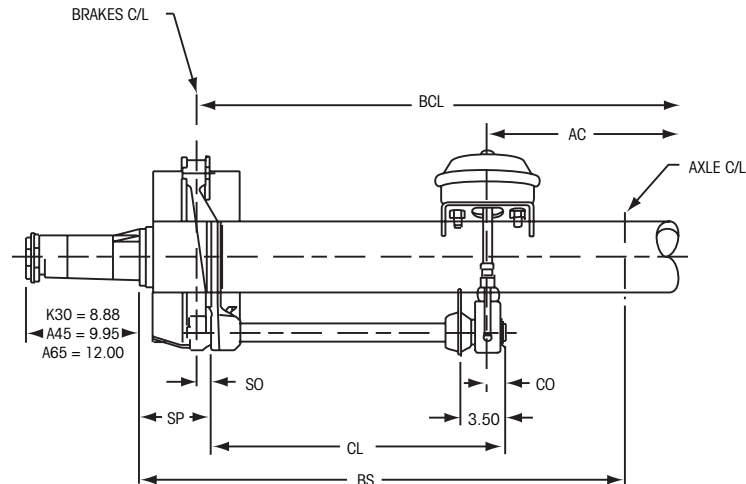
# H TRAILER AXLE

## K30 / A45 / A65 SERIES

### TRAILER AXLE SPECIFICATIONS

LIT NO: L1113

DATE: December 2008

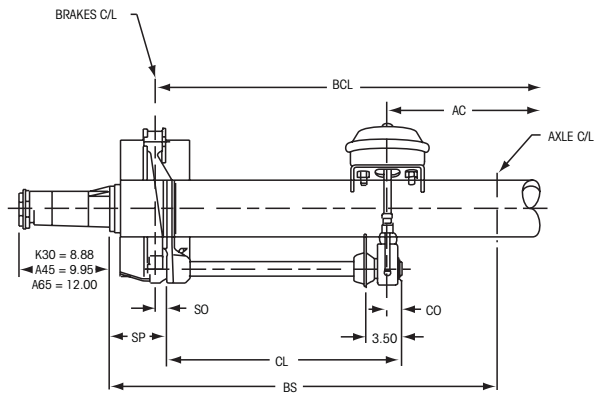


#### WHERE

- AC** Air chamber centerline to centerline
- BCL** Brake centerline to brake centerline
- BS** Inner bearing shoulder to shoulder
- BW** Bearing width (cup and cone assembled)
- CL** Cam under head length
- CO** Distance from end of cam to slack centerline: 1.38" for 16.5" and 18" brakes, 1.62" for 20" brakes
- DT** Wheel disc thickness
- HF** Hub face to hub face =  $BS + 2(BW + B)$
- ID** Inside of brake drum to brake drum dimension
- OW** Overall width (outside left tire to outside right tire)
- RO** Rim offset (negative for single inset wheels)
- SO** Spider offset (centerline of anchor pin holes to face of cam boss): 1.17" for the 16.5" and 18" brakes, 1.42" for the 20" brakes
- SP** Spider placement (determines position of brake shoes in drum)
- SW** Spacer width (spoke wheels)
- TR** Track (centerline of left-hand tires to centerline of right-hand tires)
- TW** Tire width (loaded)
- W** Tube wall thickness
- X** End of S-cam to mounting face of S-cam bracket: 3.50" for 16.5" and 18" brakes, 4.12" for 20" brakes

#### WHEEL BEARINGS

Model	Location	Industry Part No. Cone / Cup	BW
K30	Inner	759/752	1.875"
	Outer	740/742	1.750"
A45	Inner	787/772	1.875"
	Outer	6580/6535	2.125"
A65	Inner	896/892	2.250"
	Outer	6580/6535	2.125"



## CALCULATIONS

$$\text{Air Chamber CL to CL: } AC = BS - 2(SP + CL - CO)$$

$$\text{Spider Placement: } SP = D - BW + SO - (G/2)$$

$$\text{Cam Shaft Length: } CL = (BS - AC)/2 + CO - SP$$

$$\text{For Disc Wheels: } TR = BS + 2(BW + B + DT)$$

$$ID = TR - 2(DT + B + D)$$

$$\text{Dual OW} = TR + 2(RO) + TW$$

$$\text{Single OW} = HF + 2(RO) + TW$$

$$\text{For Spoke Wheels: } TR = BS + 2(BW + C)$$

$$ID = TR - 2(C+D)$$

$$\text{Dual OW} = TR + 2(RO) + TW + SW$$

$$\text{Single OW} = \text{Contact Hendrickson}$$

Application Engineering

Axle Model	Maximum Rating <sup>1</sup>	Tube Size and W	STD TR <sup>2</sup>	BS <sup>3</sup>	Air Brake Size	SP	BCL <sup>3</sup>	Air Chamber CL/CL		Wheels	Hubs
								AC <sup>3</sup>	CL		
K30	30,000 lbs.	5.75 x .625	70.5"	62.75	16.5 x 7 18 x 7	4.62	55.85	21.02	17.625	N/A	10 stud-11 1/4" B.C. 10 stud (HD)-11 1/4" B.C. 10 stud-13 3/16" B.C. 10 stud (HD)-13 3/16" B.C.
					16.5 x 7 18 x 7	5.75	53.59	18.76	17.625	20" - 6 spk. 24" - 6 spk.	N/A
A45	45,000 lbs.	5.75 SOLID	86.0"	76.38	16.5 x 7 18 x 7 20 x 8	4.25	70.22	35.39	17.625	N/A	10 stud-11 1/4" B.C. 10 stud (HD)-11 1/4" B.C. 10 stud-13 3/16" B.C. 10 stud (HD)-13 3/16" B.C.
					16.5 x 7 18 x 7	5.00	68.72	33.89	17.625	24" - 6 spk.	
A65	65,000 lbs.	6.00 SOLID	88.0"	79.25	20 x 8 20 x 8	7.00 7.56	65.10 66.85	24.39 26.12	20.625 20.625	24" - 6 spk. N/A	N/A 10 stud (HD)-13 3/16" B.C.

### NOTES (all dimension in inches):

1. Maximum rating is for on-highway use with standard spring suspensions and spring centers 33 inches less than track on K30 models and 38 inches less than track on A45 and A65 models combined with the maximum brake size. For ratings at other spring centers or smaller brake sizes, contact Hendrickson Application Engineering.
2. Other track lengths available up to 120 inches.
3. The dimensions are based on the standard track length. For tracks other than standard add or subtract the corresponding track difference to the stated dimension.



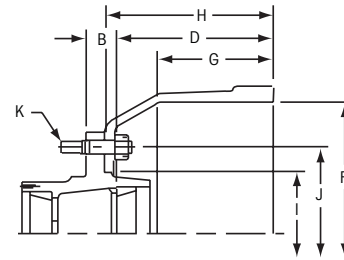
## WHEEL-END ARRANGEMENTS

### Drawing Reference A

	Part Number	Type	Brake Size	B	D	F	G	H	I	J	K
				Cup to MTG. Face	Cup to end of Drum	Brake Size Diameter	Brake Drum Surface Width	Drum Overall Depth	Drum Pilot Depth	Stud Circle	Stud Quantity (DIA.)
Outboard Drum	K30HU173 (stud pilot)	10 stud 11.25 B.C.	16.5 x 7	1.68	8.94	16.50	7.62	10.62	8.78	11.25	10 (.750)
	K30HU170 (hub pilot)	10 stud 11.25 B.C.	16.5 x 7	1.68	8.94	16.50	7.62	10.62	8.78	11.25	10 (22mm)
	K30HU174 (hub pilot)	10 stud 335mm B.C.	16.5 x 7	1.68	8.91	16.50	7.38	10.59	11.25	335mm	10 (22mm)
Inboard Drum	A45HU105X	10 stud (HD) 11.25 B.C.	16.5 x 7	2.31	8.69	16.50	7.62	9.50	9.44	11.25	10 (.938)
	A45HU125X		16.5 x 7	2.31	8.69	16.50	7.38	9.50	11.00	13.19	
	A45HU107X	10 stud (HD) 13.19 B.C.	18 x 7	2.31	8.94	18.00	7.69	9.75	9.44	13.19	10 (.938)
	A45HU113X		20 x 8	2.31	11.81	20.00	8.50	12.62	9.44	13.19	
	A65HU105X	10 stud (HD) 13.19 B.C.	20 x 8	1.00	13.12	20.00	8.50	12.62	11.00	13.19	10 (.938)

#### NOTES (all dimension in inches):

- B** Bearing cup shoulder to hub mounting face  
(see hub and drum manufacturers' specifications)
- C** Bearing cup shoulder to centerline of track  
(see hub and drum manufacturers' specifications)
- D** Bearing cup shoulder to end of brake drum  
(see hub and drum manufacturers' specifications)
- G** Brake drum surface width  
(see hub and drum manufacturers' specifications)



**A**  
(shows inboard drum)

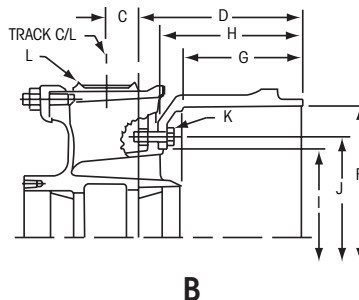
## Drawing Reference B

Part Number	Type	Brake Size	C	D	F		G	H	I	J	K	L
			Cup to Center Line of Track	Cup to end of Drum	Diameter	Brake Surface	Drum Overall Depth	Drum Pilot Diameter	Drum Bolt Circle (DIA.)	Bolt Quantity (DIA.)	Rim Spacer Width	
K30HU158 <sup>1</sup>	20" - 6 spk.	16.5 x 7	2.00	10.25	16.50	7.44	9.00	11.25	12.75	6 (.656)	4.00	
K30HU145 <sup>2</sup>	20" - 6 spk.	16.5 x 7	2.00	10.25	16.50	7.56	9.00	11.25	12.75	6 (.656)	4.00	
K30HU163 <sup>1</sup>	24" - 6 spk.	16.5 x 7	2.00	10.25	16.50	7.56	9.00	11.25	12.75	6 (.656)	4.00	
K30HU161 <sup>2</sup>	24" - 6 spk.	16.5 x 7	2.00	10.25	16.50	7.31	9.00	11.25	12.75	6 (.656)	4.00	
K30HU151	24" - 6 spk.	18 x 7	2.00	10.25	18.50	8.00	9.25	11.25	12.75	6 (.656)	4.00	
A45HU131	24" - 6 spk.	20 x 8	3.03	11.88	20.00	9.00	11.25	9.50	11.25	6 (.781)	5.62	

### NOTES (all dimension in inches):

1. Maximum rim size is 8.00 in.
2. Maximum Rim size is 8.50 in.

- B** Bearing cup shoulder to hub mounting face  
(see hub and drum manufacturers' specifications)
- C** Bearing cup shoulder to centerline of track  
(see hub and drum manufacturers' specifications)
- D** Bearing cup shoulder to end of brake drum  
(see hub and drum manufacturers' specifications)
- G** Brake drum surface width  
(see hub and drum manufacturers' specifications)



### MOST COMMONLY USED WHEEL-END ARRANGEMENTS

Other options are available. (Contact Hendrickson Application Engineering for additional options and dimensions.)

### SPECIAL APPLICATIONS

Approval for special Trailer Axle applications must be obtained from Hendrickson. Axle and brake capacity ratings will vary with specific applications and category of service.

### THE FOLLOWING OPTIONS ARE AVAILABLE ON ALL K30 / A45 / A65 MODELS:

Air chambers, automatic or manual slack adjusters\*, variable cam lengths and track widths, grease or oil seals, cast spoke wheels, ductile iron hubs, standard or centrifuse drums, and extended service brake linings.

\*As of October 20, 1994, all on-highway trailers are required by federal law to have automatic slack adjusters.

**Five-year warranty:** When installed on original equipment trailer applications, Hendrickson Trailer Axles are guaranteed against any defects in material or workmanship for a period of time of five (5) years from date of delivery.

www.hendrickson-intl.com

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