

*Leading the world in quality
material handling products for lift trucks.*



2011

Fork Facts



QUALITY SYSTEM
ISO 9001 - 2000

www.cascorp.com

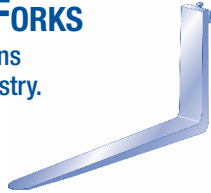
ENGINEERED FORK PRODUCTS

Cascade makes forks for lift trucks of all makes, models and sizes – at a price that helps keep you competitive.

Our comprehensive product line includes a full range of fork products for a wide cross-section of industrial and commercial applications including:

■ STAINLESS STEEL CLAD FORKS

For use in highly sanitary applications such as the food and beverage industry.



■ SPARK RETARDANT FORKS

For hazardous locations and atmospheres.



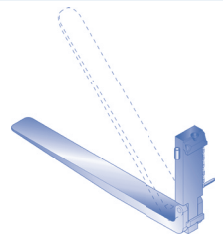
■ GYPSUM HANDLING FORKS

Provides optimum product protection when handling gypsum wallboard.



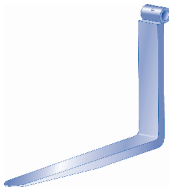
■ FOLDING FORKS

These forks fold up to enable lift trucks to maneuver in areas where movement is restricted. ie: elevators



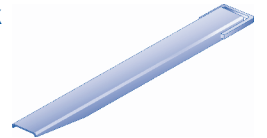
■ SHAFT FORKS

To suit all pin type carriages.



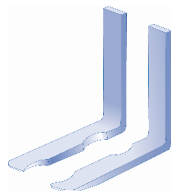
■ FORK EXTENSIONS

Used to extend the length of the fork blade when handling longer loads.



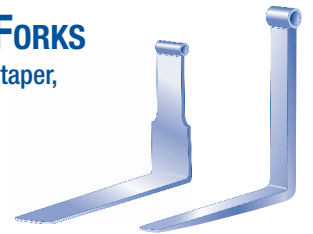
■ DRUM FORKS

Fast material handling of barrels and drums.



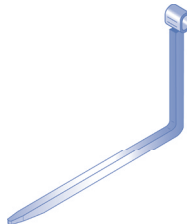
■ LUMBER & PLYWOOD FORKS

Forged heel, square heel, single taper, double taper, with or without Peek-A-Boo backs.



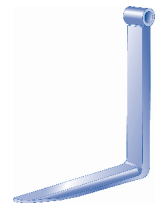
■ BLOCK FORKS

Allows secure handling of bricks and blocks.



■ COIL HANDLING FORKS

Blade is contoured to handle coils. Capacity is reduced according to the size of the contour.



■ QUICK DETACH FORKS

Designed to be easily and quickly removed from the lift truck carriage.



FORKS FOR NON-CURRENT VEHICLES

Cascade has the world's largest database on fork specifications for non-current lift trucks.

Call for information on forks for trucks manufactured in the last 50 years.

Work Sheets Following To Speed Your Order

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503 669-6257
Fax 800 693-3768

Cascade
P.O. Box 1508
Guelph, Ontario, Canada N1H 6N9

877 227-2233
519 763-3675
Fax 519 763-1472

LIFT TRUCK FORKS VOCABULARY

3.1.0 FORK PARTS

3.1.1 BLADE

The horizontal portion of the fork upon which the load is supported.

3.1.2 HEEL

The radiused portion of the fork connecting the blade to the shank.

3.1.3 SHANK

The upright (vertical) portion of the fork to which the supporting hooks are fixed.

3.1.4 HOOKS (or CLIPS, HANGERS)

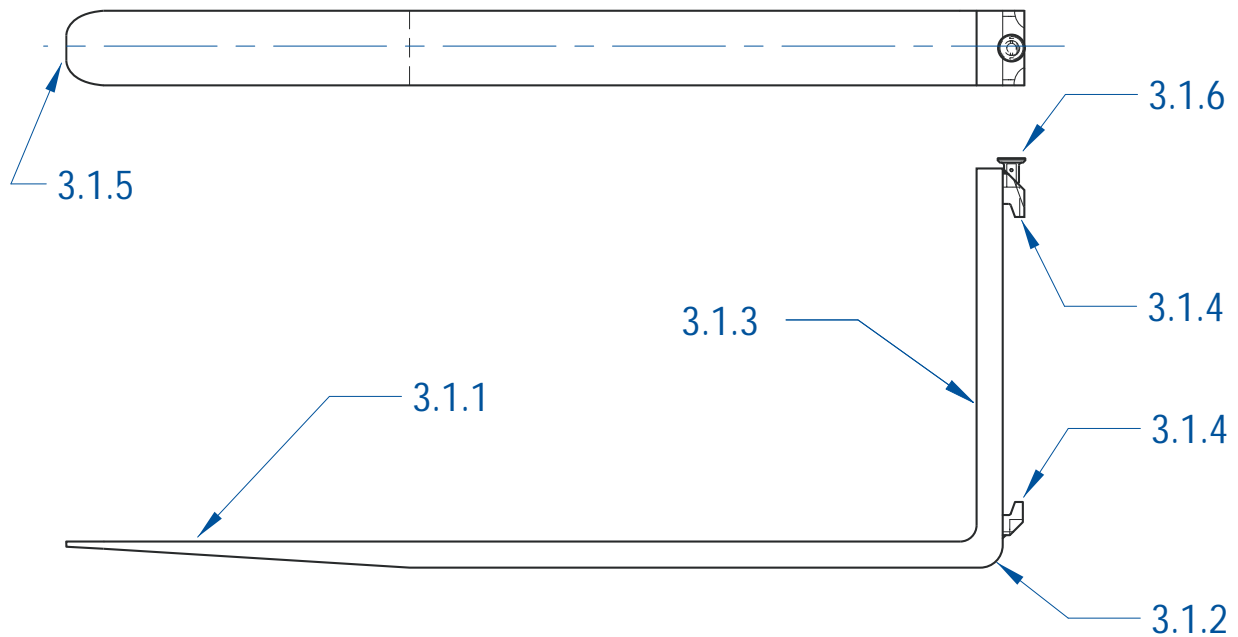
Lugs attached to the shank to support and retain the fork on the carriage. They may be made as non-integral hooks (attached to the shank) or as integral hooks (formed integrally with the shank)

3.1.5 TIP

The free end of the blade.

3.1.6 POSITIONING LOCK (or PIN ASSEMBLY, LOCKING PIN)

Device for locating the fork on the fork carriage.



LIFT TRUCK FORKS VOCABULARY

3.2.0 FORK SURFACES

3.2.1 BLADE - UPPER FACE

The uppermost surface of the blade on which the load is carried.

3.2.2 BLADE - BOTTOM FACE

The lower surface of the blade, including the tapers.

3.2.3 SHANK - FRONT FACE

The face of the shank which contacts the load and from which the load center distance is measured.

3.2.4 FLANKS

The side faces of the blade and shank.

3.2.5 HOOK RETAINING FACE

The inclined faces of the top and the bottom hooks.

3.2.6 HOOK SUSPENSION FACE

The bottom horizontal face of the top hook in contact with the carriage or fork carrier.

3.2.7 TIP FLANKS (TOE FLANKS)

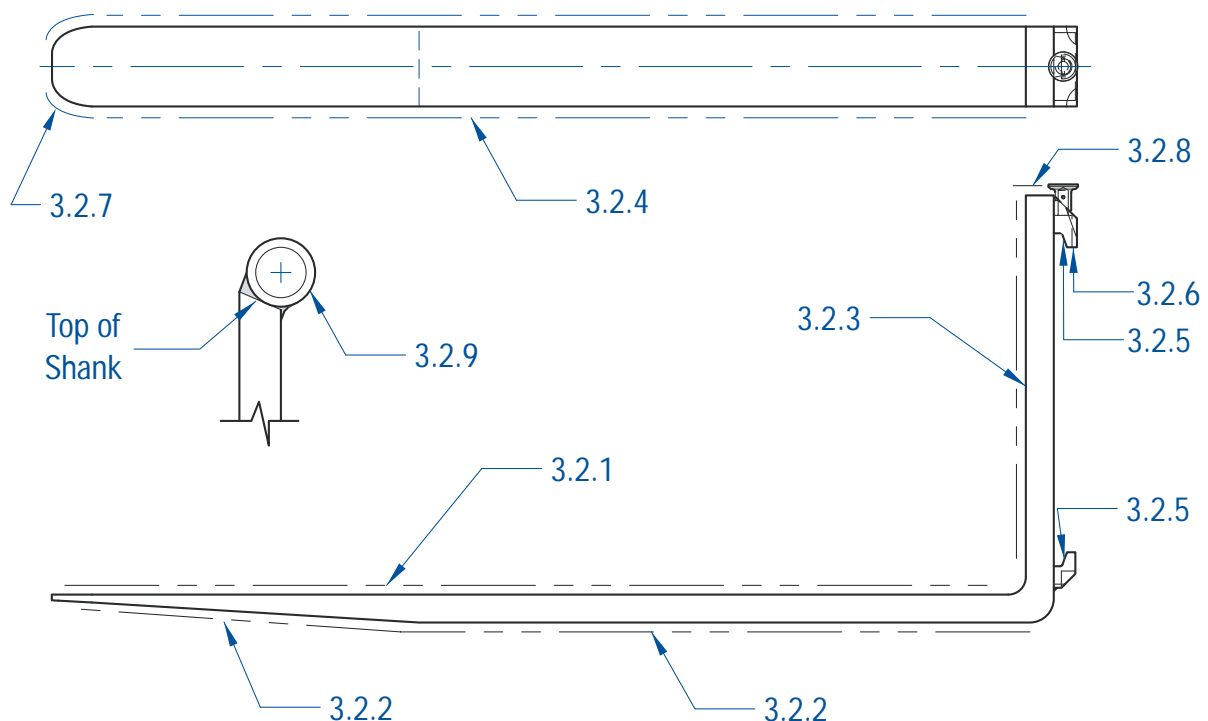
The tip of blade sides which are shaped to facilitate insertion of the fork. (The tip shapes may take various forms)

3.2.8 SHANK TOP

The upper surface of the vertical (or shank)

3.2.9 TUBE

The tube used for mounting forks onto shaft-type carriages.



LIFT TRUCK FORKS VOCABULARY

3.3.0 FORK DIMENSIONS

T - THICKNESS

The thickness of the parallel portion of the blade or shank closest to the heel.

W - WIDTH

The width of the blade.

BH - BACK HEIGHT

The distance from the bottom of the blade to the top of the shank.

BL - LENGTH

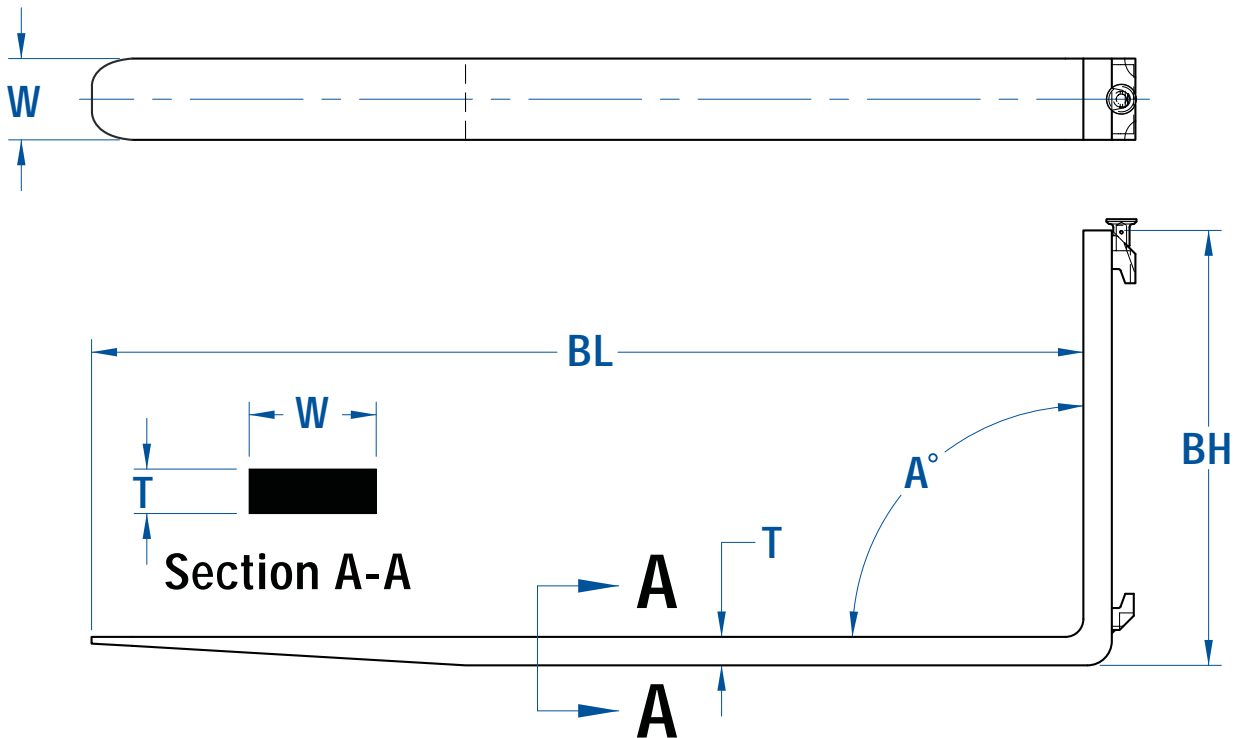
The length of the blade measured from the front of the shank to the extreme tip of the blade.

CROSS SECTION

The product of the width and thickness.

A - ANGLE

The angle from the upper face of the blade to the front face of the shank.



Cascade's Metric Program

Cascade has converted to metric cross sections. The actual size shipped will be the metric cross section and has no effect on the stated capacity. To convert metric to imperial, divide by the factor "25.4".

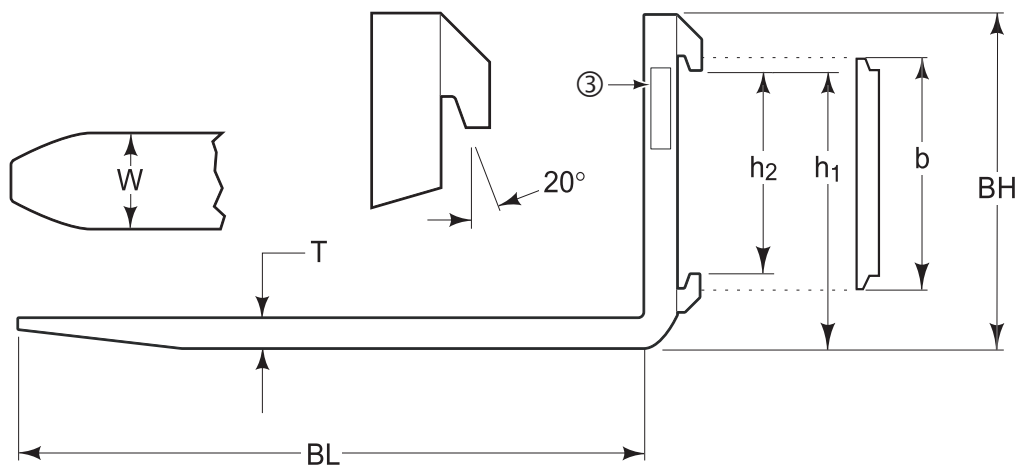
I.T.A. Hook Fork Capacity

Capacity ratings for I.T.A. Hook Forks are based on steel section size, hanger capacity and the lift truck class itself.

Standard I.T.A. Forks

b:	Dealer Name:	Phone:
h ₁ :	Contact Name:	Fax:
h ₂ :	Email:	

T:
W:
BL:
BH:



Truck Make:
Truck Model:
Truck Capacity:
Fork Capacity/Pair:
Load Center:

Mounting Class	Distance Between Hooks		Height of Carriage		Check Your Choice
	h ₂		b		
1	h ₂	12.05" / 306mm	b	13.00" / 331mm	
2	h ₂	15.04" / 382mm	b	16.00" / 407mm	
3	h ₂	18.78" / 477mm	b	20.00" / 508mm	
4	h ₂	23.54" / 598mm	b	25.00" / 635mm	
5	h ₂	26.77" / 680mm	b	28.67" / 728mm	

- General Notes:**
- ① Standard tips and tapers will be supplied, unless specific dimensions are given. Non-Standard requirements MAY be more expensive.
 - ② Standard I.T.A. hooks and fork sizes are matched independently. Forks will always be rated to the related truck class capacity in preference to the fork cross section size. Greater lifting capacity may be achieved by requesting our HEAVY DUTY hooks, which will however incur increased cost and delivery time.
 - ③ Provide all available stamping information, check both sides of upright.

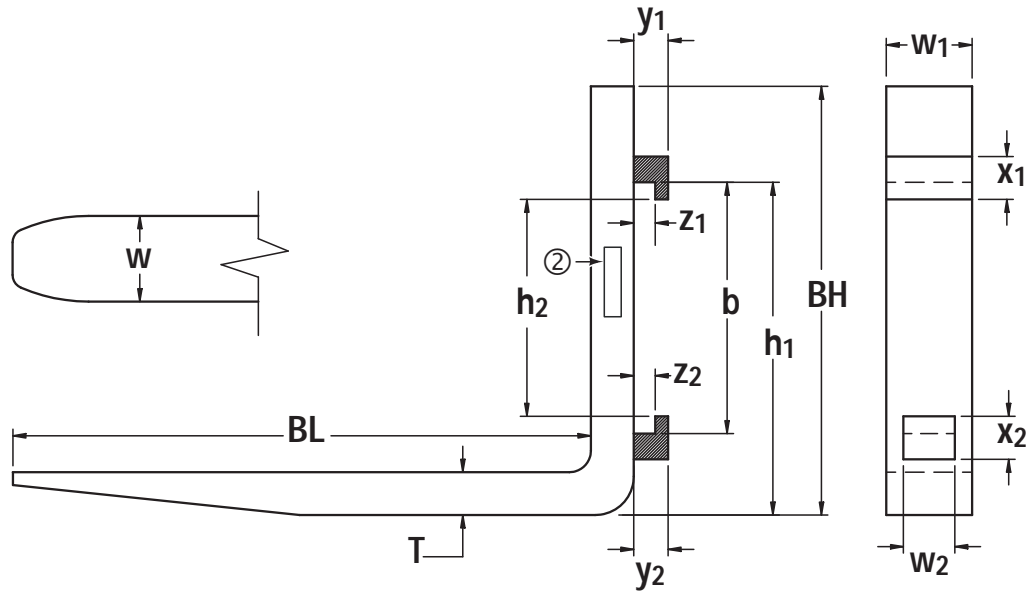
Forks to fit square carriage plates

W:	Dealer Name:	Phone:
T:	Contact Name:	Fax:
BL:	Email:	
BH:		

b:
h ₁ :
h ₂ :

w ₁ :
w ₂ :
x ₁ :
x ₂ :
y ₁ :
y ₂ :
z ₁ :
z ₂ :

Truck Make:
Truck Model:
Truck Capacity:
Fork Capacity/Pair:
Load Center:



Pin Kit Required? Yes No
(circle one)

If No, it is the user's responsibility to provide an acceptable means of fork retention
 REF: ANSI/ITSDF B56.1, 7.27.1

General Notes:

- ① Standard tips and tapers will be supplied, unless specific dimensions are given. Non-Standard requirements MAY be more expensive.
- ② Provide all available stamping information, check both sides of upright.

Shaft / Pin / Bar Type Forks

W:	Dealer Name:	Phone:
T:	Contact Name:	Fax:
BL:	Email:	

BH:
CL:

OS:
IS:
RS:
IL: 0

Bar pin Ø:
Tube In Ø:
Tube Out Ø:
sa:
sd:
sl:
sw:
TU:

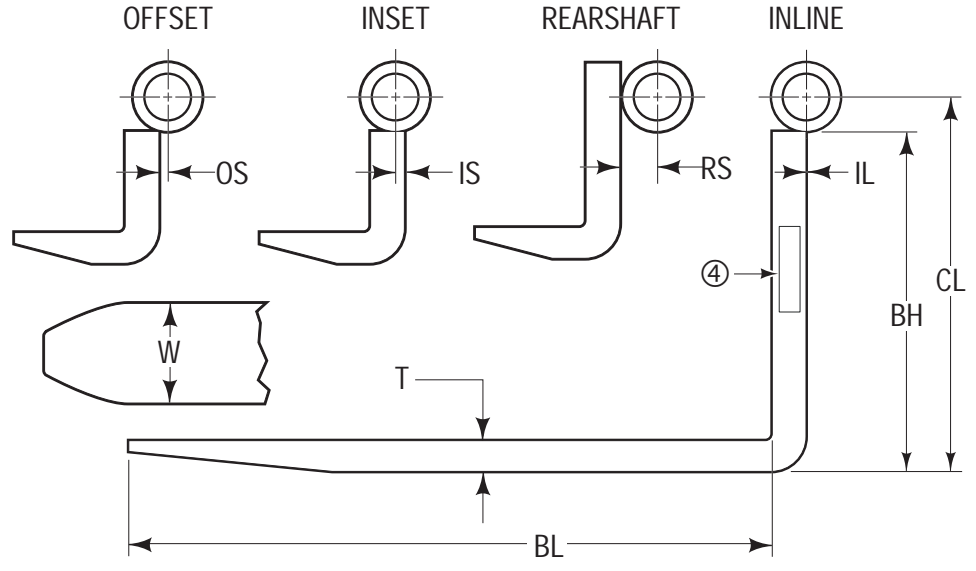
Truck Make:

Truck Model:

Truck Capacity:

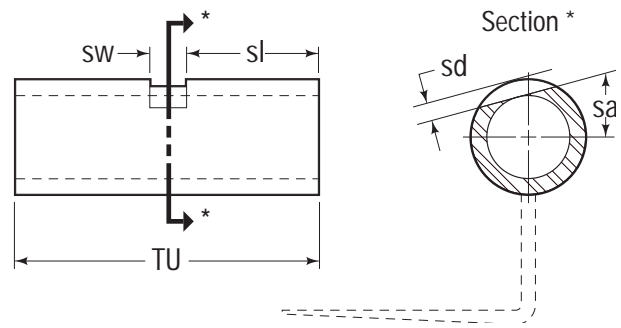
Fork Capacity/Pair:

Load Center:



Is Tube Slotted? Yes No
(circle one)

If Yes, show dimensions (sa to TU)



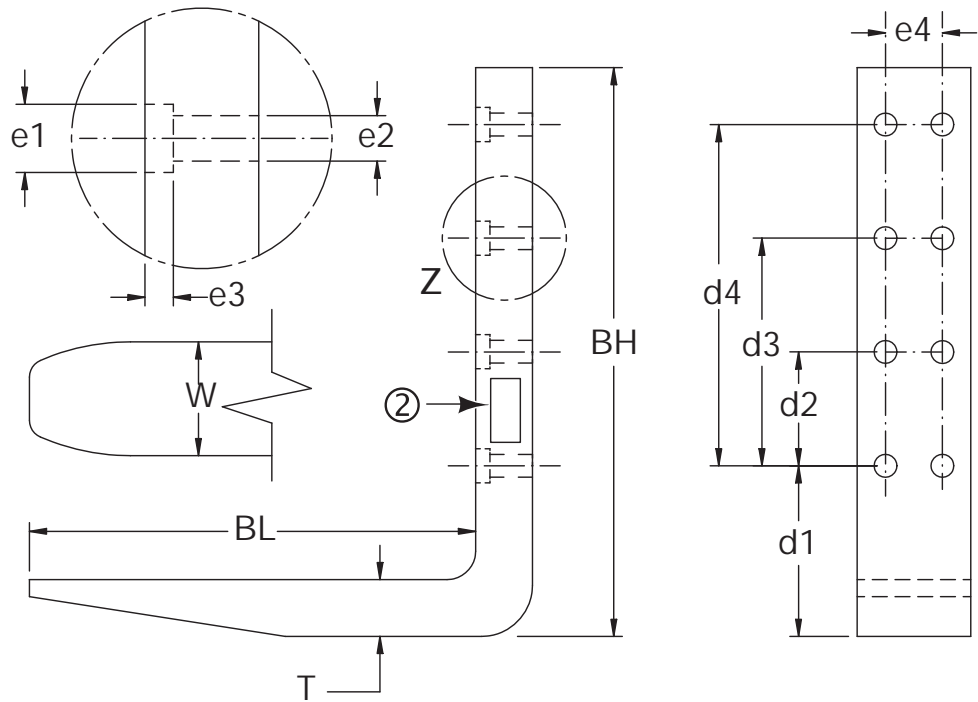
General Notes:

- ① Standard tips and tapers will be supplied, unless specific dimensions are given. Non-Standard requirements MAY be more expensive.
- ② Tube ID will equal bar diameter plus acceptable tolerance.
- ③ Tube OD: Excessively thin walls on the tube may require use of special tube material at extra cost. Consult Cascade.
- ④ Provide all available stamping information, check both sides of upright.

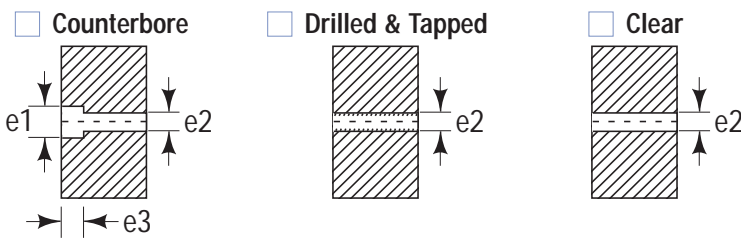
Bolt-On Forks

W:	Dealer Name:	Phone:
T:	Contact Name:	Fax:
BL:	Email:	
BH:		

DETAIL Z



Detail Z: 3 Bore/Hole type designs offered



Indicate thread size _____

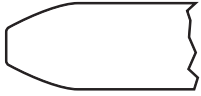
General Notes:

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- ② Provide all available stamping information, check both sides of upright.

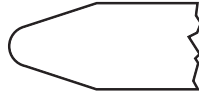
d1:
d2:
d3:
d4:
e1:
e2:
e3:
e4:
Truck Make:
Truck Model:
Truck Capacity:
Fork Capacity/Pair:
Load Center:

Fork Tips

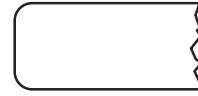
No. 1



No. 2



No. 3



General Notes: No. 1 tip is standard on forks up to and including 7" (180mm).
 No. 2 tip is standard on Block Handling Forks
 No. 3 tip is standard on forks wider than 7" (180mm).

Chisel & Bevel Options



Standard Taper,
 No Bevel



Full Taper & Polish
 with Bottom Bevel



Full Taper & Polish
 with Top Bevel

Note: Other bevels available. Please consult Cascade.

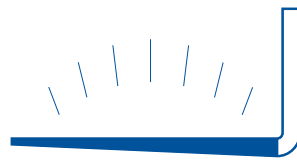
Tapers



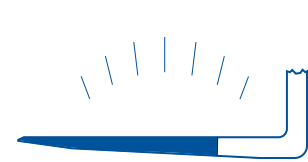
Standard Taper



Full Top Taper
 & Polish



Full Bottom Taper
 & Polish

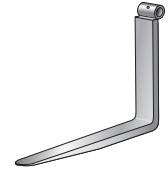


Two Stage
 Taper & Polish

SHAFT FORKS

Shaft Forks suit all pin type carriages

Capacity for rotator and inverted forks deduct 15%.
For dimensions not listed, please call Cascade.



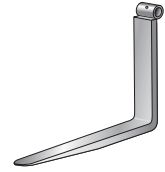
Imperial dimensions		Capacity per pair			Metric dimensions		Capacity per pair		
Thickness	Width	lb @ 24"	lb @ 36"	lb @ 48"	Thickness	Width	kg @ 600	kg @ 900	kg @ 1200
1.25"	4"	3,700	2,400	1,850	35	100	1,700	1,150	850
1.5"	3"	4,200	2,800	2,000	40	80	1,900	1,300	900
1.5"	4"	5,500	3,600	2,750	40	100	2,500	1,650	1,250
1.5"	5"	6,400	4,200	3,200	40	122	3,000	2,000	1,500
1.5"	6"	8,000	5,400	4,000	40	150	3,700	2,400	1,800
1.5"	7"	9,600	6,400	4,800	40	180	4,400	2,900	2,200
1.5"	8"	10,800	7,200	5,400	40	200	4,900	3,300	2,400
1.5"	10"	13,400	9,000	6,600	40	250	6,200	4,100	3,100
1.5"	12"	16,200	10,800	8,000	40	300	7,400	4,900	3,700
1.5"	15"	20,400	13,600	10,200	40	380	9,400	6,300	4,700
1.75"	3"	5,400	3,600	2,600	45	80	2,500	1,600	1,200
1.75"	4"	6,800	4,400	3,400	45	100	3,100	2,100	1,500
1.75"	5"	8,200	5,400	4,000	45	122	3,800	2,500	1,900
1.75"	6"	10,200	6,800	5,000	45	150	4,700	3,100	2,300
1.75"	7"	12,200	8,200	6,000	45	180	5,600	3,700	2,800
2"	1.5"	3,200	2,200	1,600	50	40	1,500	1,000	700
2"	2"	4,200	2,800	2,000	50	50	1,900	1,200	900
2"	4"	8,400	5,600	4,200	50	100	3,800	2,500	1,900
2"	5"	10,200	6,800	5,000	50	122	4,700	3,100	2,300
2"	6"	12,600	8,400	6,200	50	150	5,800	3,800	2,900
2"	7"	15,200	10,000	7,600	50	180	7,000	4,600	3,500
2"	8"	16,800	11,200	8,400	50	200	7,700	5,100	3,800
2"	10"	21,000	14,000	10,400	50	250	9,700	6,400	4,800
2"	12"	25,200	16,800	12,600	50	300	11,600	7,700	5,800
2"	15"	32,000	21,400	16,000	50	380	14,800	9,800	7,400
2"	18"	38,800	25,800	19,400	50	460	17,900	11,900	8,900
2.25"	4"	12,000	8,000	6,000	60	100	5,600	3,700	2,800
2.25"	5"	15,200	10,000	7,600	60	125	7,000	4,600	3,500
2.25"	6"	18,200	12,000	9,000	60	150	8,400	5,600	4,200
2.25"	7"	21,800	14,600	10,800	60	180	10,000	6,700	5,000
2.5"	4"	14,200	9,400	7,000	65	100	6,500	4,300	3,200
2.5"	5"	17,800	11,800	8,800	65	125	8,200	5,400	4,100
2.5"	6"	21,400	14,200	10,600	65	150	9,800	6,500	4,900
2.5"	7"	25,600	17,000	12,800	65	180	11,800	7,800	5,900
2.5"	8"	28,400	19,000	14,200	65	200	13,100	8,700	6,500
2.5"	10"	35,600	23,800	17,800	65	250	16,400	10,900	8,200
2.5"	12"	42,800	28,400	21,400	65	300	19,700	13,100	9,800
2.5"	15"	54,200	36,000	27,000	65	380	25,000	16,600	12,500
2.75"	6"	24,800	16,400	12,400	70	150	11,400	7,600	5,700
2.75"	7"	29,800	19,800	14,800	70	180	13,700	9,100	6,800
2.75"	8"	33,000	22,000	16,400	70	200	15,200	10,100	7,600
2.75"	10"	41,400	27,600	20,600	70	250	19,000	12,700	9,500
2.75"	12"	49,600	33,000	24,800	70	300	22,900	15,200	11,400



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Imperial dimensions		Capacity per pair			Metric dimensions		Capacity per pair		
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3"	6"	28,400	19,000	14,200	75	150	13,100	8,700	6,500
3"	7"	34,200	22,800	17,000	75	180	15,700	10,500	7,800
3"	8"	38,000	25,200	19,000	75	200	17,500	11,600	8,700
3"	10"	47,400	31,600	23,600	75	250	21,900	14,600	10,900
3"	12"	57,000	38,000	28,400	75	300	26,200	17,500	13,100
3.25"	8"	48,800	32,400	24,400	85	200	22,500	15,000	11,200
3.25"	10"	61,000	41,200	30,500	85	250	28,100	18,700	14,050
3.5"	7"	49,200	32,800	24,600	90	180	22,700	15,100	11,300
3.5"	8"	54,600	36,400	27,200	90	200	25,200	16,800	12,600
3.75"	8"	61,000	40,600	30,400	95	200	28,100	18,700	14,000
3.75"	11.5"	89,000	59,200	44,400	95	292	41,000	27,300	20,500
4"	8"	67,600	45,000	33,800	100	200	31,100	20,700	15,500
4"	10"	84,400	56,200	42,200	100	250	38,900	25,900	19,400
4"	12"	101,400	67,600	50,600	100	300	46,700	31,100	23,300
4.25"	12"	122,600	81,800	61,200	110	300	56,500	37,700	28,200
4.5"	8"	89,400	59,600	44,600	115	200	41,200	27,400	20,600
4.5"	10"	111,600	74,400	55,800	115	250	51,500	34,300	25,700
4.5"	12"	134,000	89,400	67,000	115	300	61,800	41,200	30,900
5"	10"	132,000	88,000	66,000	125	250	60,800	40,500	30,400
5"	12"	158,400	105,600	79,200	125	300	73,000	48,600	36,500
5.5"	12"	198,600	132,400	99,200	140	300	91,600	61,000	45,800
6"	12"	228,000	152,000	114,000	150	300	105,100	70,100	52,500
6"	14"	266,200	177,400	133,000	150	350	122,600	81,700	61,300
6"	16"	304,200	206,100	152,100	150	400	140,200	93,500	70,100

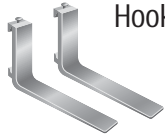
SHAFT MOUNTED BLOCK HANDLING FORKS

Block Forks for pin type carriages.

Fork Size WxT	Capacity/ Pair Lbs. @ 24"	Capacity/ Pair Lbs. @ 36"	Capacity/ Pair Lbs. @ 48"	Fork Size WxT	Capacity/ Pair Kgs. @ 600	Capacity/ Pair Kgs. @ 900	Capacity/ Pair Kgs. @ 1200
	Load Center	Load Center	Load Center		Load Center	Load Center	Load Center
Inches				Millimeters			
1 1/2" x 2"	3,200	2,200	1,600	40 x 50	1,500	1,000	700
2" x 2"	4,200	2,800	2,000	50 x 50	1,900	1,200	900

1. All forks rated above have a minimum safety factor of 3:1 with static load.
2. All ratings listed are per pair - Cascade forks are stamped per individual fork capacity as per ANSI/ITSDF B56.1-2009.
3. Capacities for non-standard sizes and load centers can be obtained from Cascade Sales.

CAPACITY CHART



Hook forks fit standard I.T.A. carriages.

Capacity
@ 24" or
600mm
Load
Center

Fork Size
WxTxL

Part No.
Standard
Taper

Weight
Pounds

Part No.
Full Bottom
Tapered & Polished

Weight
Pounds

	Fork Size		Part No. Standard Taper	Weight Pounds	Part No. Full Bottom Tapered & Polished	Weight Pounds
	Inches	Millimeters				
3,700 Lbs./Pair	4" x 1 1/4" x 30"	100 x 35 x 762	B2A30SD	72	B2A30TP	69
	4" x 1 1/4" x 36"	100 x 35 x 914	B2A36SD	82	B2A36TP	75
	4" x 1 1/4" x 42"	100 x 35 x 1067	B2A42SD	88	B2A42TP	82
1,700 Kgs./Pair	4" x 1 1/4" x 48"	100 x 35 x 1219	B2A48SD	97	B2A48TP	88
	4" x 1 1/4" x 54"	100 x 35 x 1372	B2A54SD	110	B2A54TP	95
	4" x 1 1/4" x 60"	100 x 35 x 1524	B2A60SD	119	B2A60TP	101

5,500 Lbs./Pair	4" x 1 1/2" x 30"	100 x 40 x 762	B2B30SD	77	B2B30TP	77
	4" x 1 1/2" x 32"	100 x 40 x 813	B2B32SD	80	B2B32TP	80
	4" x 1 1/2" x 36"	100 x 40 x 914	B2B36SD	86	B2B36TP	83
	4" x 1 1/2" x 42"	100 x 40 x 1067	B2B42SD	97	B2B42TP	91
2,500 Kgs./Pair	4" x 1 1/2" x 48"	100 x 40 x 1219	B2B48SD	107	B2B48TP	98
	4" x 1 1/2" x 54"	100 x 40 x 1372	B2B54SD	117	B2B54TP	105
	4" x 1 1/2" x 60"	100 x 40 x 1524	B2B60SD	126	B2B60TP	111
	4" x 1 1/2" x 72"	100 x 40 x 1829	B2B72SD	154		

5,500 Lbs./Pair	5" x 1 1/2" x 30"	122 x 40 x 762	B2C30SD	97	B2C30TP	93
	5" x 1 1/2" x 36"	122 x 40 x 914	B2C36SD	108	B2C36TP	102
	5" x 1 1/2" x 42"	122 x 40 x 1067	B2C42SD	117	B2C42TP	105
	5" x 1 1/2" x 48"	122 x 40 x 1219	B2C48SD	130	B2C48TP	119
2,500 Kgs./Pair	5" x 1 1/2" x 54"	122 x 40 x 1372	B2C54SD	141	B2C54TP	121
	5" x 1 1/2" x 60"	122 x 40 x 1524	B2C60SD	154	B2C60TP	137
	5" x 1 1/2" x 72"	122 x 40 x 1829	B2C72SD	190		

5,500 Lbs./Pair	6" x 1 1/2" x 30"	150 x 40 x 762	B2D30SD	119	B2D30TP	113
	6" x 1 1/2" x 36"	150 x 40 x 914	B2D36SD	134	B2D36TP	124
	6" x 1 1/2" x 42"	150 x 40 x 1067	B2D42SD	151	B2D42TP	135
2,500 Kgs./Pair	6" x 1 1/2" x 48"	150 x 40 x 1219	B2D48SD	166	B2D48TP	145
	6" x 1 1/2" x 54"	150 x 40 x 1372	B2D54SD	182	B2D54TP	155
	6" x 1 1/2" x 60"	150 x 40 x 1524	B2D60SD	197	B2D60TP	166

*Lock pin assembly included on all ITA Hook Forks.

Add on Options

Hole in Blade Surface, as per Fork Facts page 34.

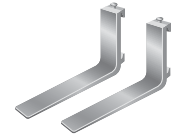
Extra upper hanger for Rotator as per Fork Facts page 41.

NOTES:

- Standard taper forks supplied with no bevel on tips.
- Full bottom & full top tapered & polished forks supplied with beveled tips.
- Purchasing one (1) fork is non returnable and non refundable.
- Metric Program: Cascade has converted to metric cross sections. The actual size shipped will be the metric cross section and has no effect on the stated capacity. To precisely convert from metric to imperial divide the metric number by the factor "25.4". The inches stated have been rounded to the nearest whole number based on this equation.



Hook forks fit standard I.T.A. carriages.



Capacity
@ 24" or
600mm
Load
Center

	Fork Size WxTxL		Part No. Standard Taper	Weight Pounds	Part No. Full Bottom Tapered & Polished	Weight Pounds
	Inches	Millimeters				
5,500 Lbs./Pair 2,500 Kgs./Pair	4" x 1 3/4" x 30"	100 x 45 x 762	B2E30SD	89	B2E30TP	84
	4" x 1 3/4" x 36"	100 x 45 x 914	B2E36SD	93	B2E36TP	92
	4" x 1 3/4" x 42"	100 x 45 x 1067	B2E42SD	105	B2E42TP	100
	4" x 1 3/4" x 48"	100 x 45 x 1219	B2E48SD	118	B2E48TP	107
	4" x 1 3/4" x 54"	100 x 45 x 1372	B2E54SD	129	B2E54TP	115
	4" x 1 3/4" x 60"	100 x 45 x 1524	B2E60SD	140	B2E60TP	122
	4" x 1 3/4" x 72"	100 x 45 x 1829	B2E72SD	169	B2E72TP	138
	4" x 1 3/4" x 84"	100 x 45 x 2134	B2E84SD	192		
	4" x 1 3/4" x 96"	100 x 45 x 2438	B2E96SD	216		

5,500 Lbs./Pair 2,500 Kgs./Pair	5" x 1 3/4" x 30"	122 x 45 x 762	B2F30SD	111	B2F30TP	106	
	5" x 1 3/4" x 36"	122 x 45 x 914	B2F36SD	122	B2F36TP	115	
	5" x 1 3/4" x 42"	122 x 45 x 1067	B2F42SD	130	B2F42TP	125	
	5" x 1 3/4" x 48"	122 x 45 x 1219	B2F48SD	142	B2F48TP	134	
	5" x 1 3/4" x 54"	122 x 45 x 1372	B2F54SD	157	B2F54TP	144	
	5" x 1 3/4" x 60"	122 x 45 x 1524	B2F60SD	170	B2F60TP	153	
	5" x 1 3/4" x 72"	122 x 45 x 1829	B2F72SD	211	B2F72TP	173	
	5" x 1 3/4" x 84"	122 x 45 x 2134	B2F84SD	241			
		5" x 1 3/4" x 96"	122 x 45 x 2438	B2F96SD	271		

*Lock pin assembly included on all ITA Hook Forks.

Add on Options

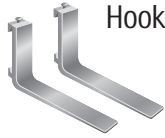
Hole in Blade Surface, as per Fork Facts page 34.

Extra upper hanger for Rotator as per Fork Facts page 41.

NOTES:

1. Standard taper forks supplied with no bevel on tips.
2. Full bottom & full top tapered & polished forks supplied with beveled tips.
3. Purchasing one (1) fork is non returnable and non refundable.
4. Metric Program: Cascade has converted to metric cross sections. The actual size shipped will be the metric cross section and has no effect on the stated capacity. To precisely convert from metric to imperial divide the metric number by the factor "25.4". The inches stated have been rounded to the nearest whole number based on this equation.

ITA HOOK FORK CLASS 2



Hook forks fit standard I.T.A. carriages.

	Fork Size WxTxL		Part No. Standard Taper	Weight Pounds	Part No. Full Bottom Tapered & Polished	Weight Pounds
	Inches	Millimeters				
8,000 Lbs./Pair	6" x 1 1/2" x 42"	150 x 40 x 1067	B3D42SD	165	B3D42TP	149
	6" x 1 1/2" x 48"	150 x 40 x 1219	B3D48SD	180	B3D48TP	159
3,700 Kgs./Pair	6" x 1 1/2" x 54"	150 x 40 x 1372	B3D54SD	196	B3D54TP	170
	6" x 1 1/2" x 60"	150 x 40 x 1524	B3D60SD	211	B3D60TP	180
9,600 Lbs./Pair	7" x 1 1/2" x 42"	180 x 40 x 1067	B3J42SD	197	B3J42TP	177
	7" x 1 1/2" x 48"	180 x 40 x 1219	B3J48SD	215	B3J48TP	190
4,400 Kgs./Pair	7" x 1 1/2" x 54"	180 x 40 x 1372	B3J54SD	234	B3J54TP	196
	7" x 1 1/2" x 60"	180 x 40 x 1524	B3J60SD	253	B3J60TP	215
10,000 Lbs./Pair	8" x 1 1/2" x 42"	200 x 40 x 1067	B3K42SD	218	B3K42TP	196
	8" x 1 1/2" x 48"	200 x 40 x 1219	B3K48SD	239	B3K48TP	210
4,500 Kgs./Pair	8" x 1 1/2" x 54"	200 x 40 x 1372	B3K54SD	259	B3K54TP	224
	8" x 1 1/2" x 60"	200 x 40 x 1524	B3K60SD	280	B3K60TP	238
8,200 Lbs./Pair 3,800 Kgs./Pair	5" x 1 3/4" x 36"	122 x 45 x 914	B3F36SD	126	B3F36TP	127
	5" x 1 3/4" x 42"	122 x 45 x 1067	B3F42SD	139	B3F42TP	137
	5" x 1 3/4" x 48"	122 x 45 x 1219	B3F48SD	154	B3F48TP	149
	5" x 1 3/4" x 54"	122 x 45 x 1372	B3F54SD	169	B3F54TP	158
	5" x 1 3/4" x 60"	122 x 45 x 1524	B3F60SD	184	B3F60TP	165
	5" x 1 3/4" x 72"	122 x 45 x 1829	B3F72SD	224	B3F72TP	185
	5" x 1 3/4" x 84"	122 x 45 x 2134	B3F84SD	248	B3F84TP*	197
	5" x 1 3/4" x 96"	122 x 45 x 2438	B3F96SD	293	B3F96TP*	212
10,000 Lbs./Pair 4,500 Kgs./Pair	7" x 1 3/4" x 42"	180 x 45 x 1067	B3L42SD	214	B3L42TP	196
	7" x 1 3/4" x 48"	180 x 45 x 1219	B3L48SD	235	B3L48TP	209
	7" x 1 3/4" x 54"	180 x 45 x 1372	B3L54SD	256	B3L54TP	220
	7" x 1 3/4" x 60"	180 x 45 x 1524	B3L60SD	277	B3L60TP	236
	7" x 1 3/4" x 72"	180 x 45 x 1829	B3L72SD	320	B3L72TP	264

*These forks come equipped with a two stage taper.
Lock pin assembly included on all ITA Hook Forks.

Add on Options

Hole in Blade Surface, as per Fork Facts page 34.

Extra upper hanger for Rotator as per Fork Facts page 41.

NOTES:

1. Standard taper forks supplied with no bevel on tips.
2. Full bottom & full top tapered & polished forks supplied with beveled tips.
3. Purchasing one (1) fork is non returnable and non refundable.
4. Metric Program: Cascade has converted to metric cross sections. The actual size shipped will be the metric cross section and has no effect on the stated capacity. To precisely convert from metric to imperial divide the metric number by the factor "25.4". The inches stated have been rounded to the nearest whole number based on this equation.



Hook forks fit standard I.T.A. carriages.



	Fork Size WxTxL		Part No. Standard Taper	Weight Pounds	Part No. Full Bottom Tapered & Polished	Weight Pounds
	Inches	Millimeters				
8,400 Lbs./Pair 3,800 Kgs./Pair	4" x 2" x 42"	100 x 50 x 1067	B3H42SD	127		
	4" x 2" x 48"	100 x 50 x 1219	B3H48SD	140		
	4" x 2" x 54"	100 x 50 x 1372	B3H54SD	153		
	4" x 2" x 60"	100 x 50 x 1524	B3H60SD	166		
	4" x 2" x 72"	100 x 50 x 1829	B3H72SD	192		
10,000 Lbs./Pair 4,500 Kgs./Pair	5" x 2" x 36"	122 x 50 x 914	B3M36SD	136	B3M36TP	138
	5" x 2" x 42"	122 x 50 x 1067	B3M42SD	151	B3M42TP	149
	5" x 2" x 48"	122 x 50 x 1219	B3M48SD	168	B3M48TP	159
	5" x 2" x 54"	122 x 50 x 1372	B3M54SD	182	B3M54TP	171
	5" x 2" x 60"	122 x 50 x 1524	B3M60SD	200	B3M60TP	181
	5" x 2" x 72"	122 x 50 x 1829	B3M72SD	234	B3M72TP	201
	5" x 2" x 84"	122 x 50 x 2134	B3M84SD	274	B3M84TP*	216
5" x 2" x 96"	122 x 50 x 2438	B3M96SD	308	B3M96TP*	235	
10,000 Lbs./Pair 4,500 Kgs./Pair	6" x 2" x 36"	150 x 50 x 914	B3N36SD	173	B3N36TP	166
	6" x 2" x 42"	150 x 50 x 1067	B3N42SD	192	B3N42TP	179
	6" x 2" x 48"	150 x 50 x 1219	B3N48SD	211	B3N48TP	191
	6" x 2" x 54"	150 x 50 x 1372	B3N54SD	231	B3N54TP	203
	6" x 2" x 60"	150 x 50 x 1524	B3N60SD	250	B3N60TP	216
	6" x 2" x 72"	150 x 50 x 1829	B3N72SD	290	B3N72TP	237
	6" x 2" x 84"	150 x 50 x 2134	B3N84SD	324	B3N84TP*	241
	6" x 2" x 96"	150 x 50 x 2438	B3N96SD	379	B3N96TP*	290

*These forks come equipped with a two stage taper.
Lock pin assembly included on all ITA Hook Forks.

Add on Options

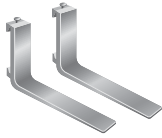
Hole in Blade Surface, as per Fork Facts page 34.

Extra upper hanger for Rotator as per Fork Facts page 41.

NOTES:

1. Standard taper forks supplied with no bevel on tips.
2. Full bottom & full top tapered & polished forks supplied with beveled tips.
3. Purchasing one (1) fork is non returnable and non refundable.
4. Metric Program: Cascade has converted to metric cross sections. The actual size shipped will be the metric cross section and has no effect on the stated capacity. To precisely convert from metric to imperial divide the metric number by the factor "25.4". The inches stated have been rounded to the nearest whole number based on this equation.

ITA HOOK FORK CLASS 3



Hook forks fit standard I.T.A. carriages.

	Fork Size WxTxL		Part No. Standard Taper	Weight Pounds	Part No. Full Bottom Tapered & Polished		Weight Pounds
	Inches	Millimeters					
13,400 Lbs./Pair	10" x 1 1/2" x 42"	250 x 40 x 1067			7502951	267	
	10" x 1 1/2" x 48"	250 x 40 x 1219			7500087	287	
6,200 Kgs./Pair	10" x 1 1/2" x 54"	250 x 40 x 1372			7504627	305	
	10" x 1 1/2" x 60"	250 x 40 x 1524			7505837	317	
	10" x 1 1/2" x 72"	250 x 40 x 1829			7509309	343	
12,600 Lbs./Pair	6" x 2" x 42"	150 x 50 x 1067	B4N42SD	216	B4N42TP	204	
	6" x 2" x 48"	150 x 50 x 1219	B4N48SD	235	B4N48TP	216	
5,800 Kgs./Pair	6" x 2" x 54"	150 x 50 x 1372	B4N54SD	255	B4N54TP	228	
	6" x 2" x 60"	150 x 50 x 1524	B4N60SD	274	B4N60TP	240	
	6" x 2" x 72"	150 x 50 x 1829	B4N72SD	314	B4N72TP	264	
15,200 Lbs./Pair	7" x 2" x 42"	180 x 50 x 1067	B4P42SD	262	B4P42TP	247	
	7" x 2" x 48"	180 x 50 x 1219	B4P48SD	286	B4P48TP	262	
	7" x 2" x 54"	180 x 50 x 1372	B4P54SD	309	B4P54TP	276	
	7" x 2" x 60"	180 x 50 x 1524	B4P60SD	332	B4P60TP	291	
7,000 Kgs./Pair	7" x 2" x 72"	180 x 50 x 1829	B4P72SD	380	B4P72TP	321	
	7" x 2" x 84"	180 x 50 x 2134	B4P84SD	427	B4P84TP*	350	
	7" x 2" x 96"	180 x 50 x 2438	B4P96SD	475	B4P96TP*	380	
16,800 Lbs./Pair	8" x 2" x 42"	200 x 50 x 1067	B4Q42SD	290	B4Q42TP	273	
	8" x 2" x 48"	200 x 50 x 1219	B4Q48SD	316	B4Q48TP	290	
	8" x 2" x 54"	200 x 50 x 1372	B4Q54SD	342	B4Q54TP	306	
	8" x 2" x 60"	200 x 50 x 1524	B4Q60SD	368	B4Q60TP	322	
7,700 Kgs./Pair	8" x 2" x 72"	200 x 50 x 1829	B4Q72SD	422	B4Q72TP	356	
	8" x 2" x 84"	200 x 50 x 2134	B4Q84SD	473	B4Q84TP*	388	
	8" x 2" x 96"	200 x 50 x 2438	B4Q96SD	527	B4Q96TP*	421	

*These forks come equipped with a two stage taper.
Lock pin assembly included on all ITA Hook Forks.

Add on Options

- _____ Hole in Blade Surface, as per Fork Facts page 34.
- _____ Extra upper hanger for Rotator as per Fork Facts page 41.

NOTES:

1. Standard taper forks supplied with no bevel on tips.
2. Full bottom & full top tapered & polished forks supplied with beveled tips.
3. Purchasing one (1) fork is non returnable and non refundable.
4. Metric Program: Cascade has converted to metric cross sections. The actual size shipped will be the metric cross section and has no effect on the stated capacity. To precisely convert from metric to imperial divide the metric number by the factor "25.4". The inches stated have been rounded to the nearest whole number based on this equation.



Hook forks fit standard I.T.A. carriages.

	Fork Size WxTxL		Part No. Standard Taper	Weight Pounds	Part No. Full Bottom Tapered & Polished	Weight Pounds
	Inches	Millimeters				
17,500 Lbs./Pair	6" x 2 1/4" x 42"	150 x 60 x 1067	B4R42SD	259	B4R42TP	243
	6" x 2 1/4" x 48"	150 x 60 x 1219	B4R48SD	283	B4R48TP	250
	6" x 2 1/4" x 54"	150 x 60 x 1372	B4R54SD	308	B4R54TP	271
8,000 Kgs./Pair	6" x 2 1/4" x 60"	150 x 60 x 1524	B4R60SD	331	B4R60TP	283
	6" x 2 1/4" x 72"	150 x 60 x 1829	B4R72SD	377	B4R72TP	314
	6" x 2 1/4" x 84"	150 x 60 x 2134	B4R84SD	424	B4R84TP*	335
	6" x 2 1/4" x 96"	150 x 60 x 2438	B4R96SD	472	B4R96TP*	371
17,500 Lbs./Pair	6" x 2 1/2" x 42"	150 x 65 x 1067	B4T42SD	272	B4T42TP	261
	6" x 2 1/2" x 48"	150 x 65 x 1219	B4T48SD	292	B4T48TP	276
	6" x 2 1/2" x 54"	150 x 65 x 1372	B4T54SD	319	B4T54TP	291
8,000 Kgs./Pair	6" x 2 1/2" x 60"	150 x 65 x 1524	B4T60SD	342	B4T60TP	306
	6" x 2 1/2" x 72"	150 x 65 x 1829	B4T72SD	399	B4T72TP	337
	6" x 2 1/2" x 84"	150 x 65 x 2134	B4T84SD	449	B4T84TP*	366
	6" x 2 1/2" x 96"	150 x 65 x 2438	B4T96SD	495	B4T96TP*	467

*These forks come equipped with a two stage taper.
Lock pin assembly included on all ITA Hook Forks.

Add on Options

Hole in Blade Surface, as per Fork Facts page 34.

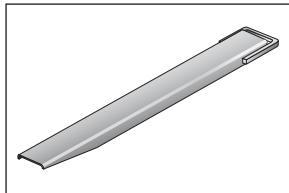
Extra upper hanger for Rotator as per Fork Facts page 41.

NOTES:

1. Standard taper forks supplied with no bevel on tips.
2. Full bottom & full top tapered & polished forks supplied with beveled tips.
3. Purchasing one (1) fork is non returnable and non refundable.
4. Metric Program: Cascade has converted to metric cross sections. The actual size shipped will be the metric cross section and has no effect on the stated capacity. To precisely convert from metric to imperial divide the metric number by the factor "25.4". The inches stated have been rounded to the nearest whole number based on this equation.

Extension Length	Fork Width 4" 100 MM		Fork Width 5" 122 MM		Fork Width 6" 150 MM		Fork Width 7" 180 MM	
	Part No.	Weight lbs.	Part No.	Weight lbs.	Part No.	Weight lbs.	Part No.	Weight lbs.
48"	7000050	29	7000059	32	7000067	36	N/A	—
54"	7000051	32	7000060	36	7000068	40	7000074	45
60"	7000052	36	7000061	39	7000069	44	N/A	—
63"	7000053	37	7000062	41	N/A	—	N/A	—
66"	7000054	39	7000063	43	N/A	—	N/A	—
72"	7000056	43	7000064	47	7000070	53	7000075	59
84"	7000057	50	7000065	55	7000071	62	N/A	—
90"	7005104	53	7004318	59	7001456	66	N/A	—
96"	7000058	57	7000066	63	7000073	70	7000076	78

When ordering extensions please state width, thickness & length of forks. Extensions suit 2"(50mm) maximum fork thickness only. Other sizes available upon request.



Fork Extensions are used to extend the length of the fork blade when handling longer uniform loads.



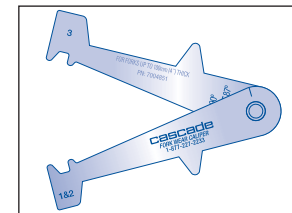
IMPORTANT: In accordance with I.T.A. recommended practices, all Cascade Fork Extensions are identified for use on a specific fork length and cross section. Using a fork extension on a fork size other than that designated can create a safety hazard. Extension length must not exceed 1.5 x Fork Length. For install instructions please refer to Cascade Technical Bulletin #6803992

FORK INSPECTION ACCESSORIES

One (1) Fork Inspection Kit is available free of charge. To order your kit: log on to www.cascorp.com and go to "Americas" then "order". To order more than one (1) inspection kit please contact the Cascade fork division at 1-877-227-2233.

Description	Part No.
Caliper	7004851
Fork Inspection Safety Kit	3014162
Includes fork arm wear caliper guide with inspection log, safety poster, caliper and instructions.	
Fork Safety Poster	3014163

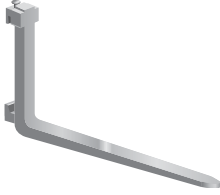
10% wear = 20% reduction in operation capacity.



Designed to indicate, at a glance, when 10% of the original thickness of the fork blade has been removed by wear.

Block forks for standard I.T.A. carriages.

I.T.A. Hook BLOCK FORKS



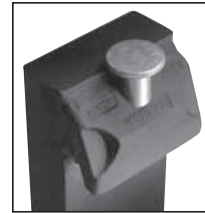
Fork Size Inches WxTxL	Fork Size Millimeters WxTxL	Part No. Standard Taper	Mounting Class	Weight Pounds
1 1/2" x 2" x 42"	40 x 50 x 1067	B2015422	2	64
1 1/2" x 2" x 48"	40 x 50 x 1219	B2015482	2	69
2" x 2" x 42"	50 x 50 x 1067	B2020422	2	77
2" x 2" x 48"	50 x 50 x 1219	B2020482	2	84
1 1/2" x 2" x 42"	40 x 50 x 1067	B2015423	3	71
1 1/2" x 2" x 48"	40 x 50 x 1219	B2015483	3	76
2" x 2" x 42"	50 x 50 x 1067	B2020423	3	85
2" x 2" x 48"	50 x 50 x 1219	B2020483	3	91

Lock pin assembly included.

PIN KIT ASSEMBLIES

Hanger Part No. ①		Pin Kit Part No.		Mounting Class	Diameter of Pin
Old	New	Old	New		
K2100U	7000025	K2PK-M	7000031	2	1/2"
K2122U	7000026	K2PK-M	7000031	2	1/2"
K582		K472	7000040	2	5/8"
K547		K472	7000040	2	5/8"
K3122U	7000027	K3PK-M	7000032	3	1/2"
K3150U	7000028	K3PK-M	7000032	3	1/2"
K577		K484	7000042	3	5/8"
K575		K484	7000042	3	5/8"
K4150U	7000029	K4PK-M	7000033	4	1/2"
K576		K493	7000045	4	5/8"

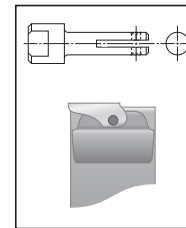
Knob Style



This style refers to pin kits 7000031, 7000032 and 7000033.

Assembly Kit contains one each of metal knob, roll pin, spring and pin.

Lever Style



This style refers to pin kits 7000040, 7000042 & 7000045.

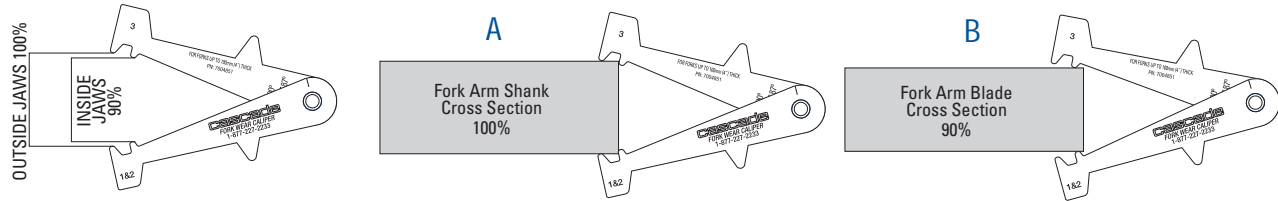
Assembly Kit contains one each of pin, lever, roll pin and spring.

Note:

- ① Look on back of fork hook for Cascade hanger part number.

SUBJECT : FORK ARM WEAR CALIPER GUIDE

Measuring Fork Wear with Calipers



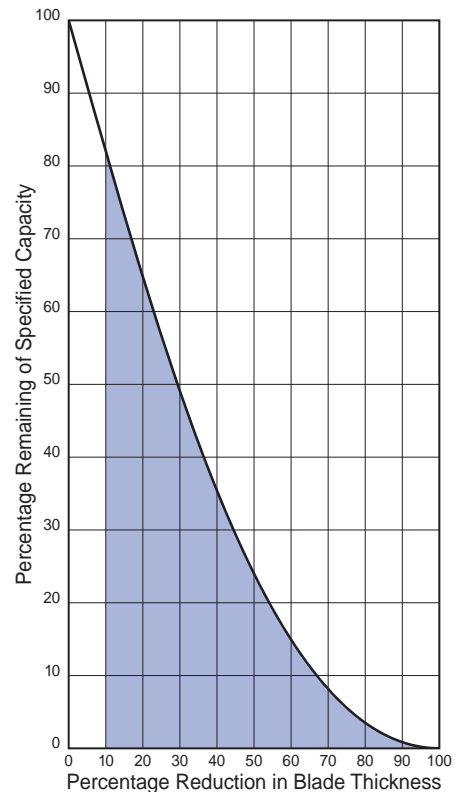
Fork calipers perform two tasks at once. They measure the thickness of the fork arm shank (A) then automatically indicate what a 10% wear factor would be when the calipers are applied to the blade cross section (B).

1. Checking Fork For Thickness Wear

Forks should be inspected (ANSI/ITSDF B56.1-2009, 6.2.8) at least once a year (single-shift operation, and more frequently in severe applications) for wear and distortion. The best method is to use a fork caliper, which is a type of adjustable go/no-go gauge.

Each fork consists of two sections: the shank, which is the vertical part attached to the carriage, and the blade, which is the portion that picks up the load.

Set the front teeth of the jaws by measuring the thickness of the shank (in an area of little or no wear) ensuring that the caliper is held square across the shank (see figure A). Carefully remove the caliper from the shank and position the jaws over the fork arm blade approximately 50mm (2") out from the heel (see figure B). If the inside teeth of the caliper hit the fork blade it has less than 10% wear and can be returned to service. If the inside teeth pass freely over the blade the fork has 10% or more wear and 20% or more reduction in capacity. Remove fork from service. See fork wear chart.



This chart shows how fork wear reduces truck capacity. ANSI/ITSDF B56.1-2009 standards require that each fork be at least half the capacity of the truck at the rated load center distance as shown on the truck nameplate. Refer to ANSI Website: www.itsdf.org/pB56.asp

NOTE: Wear calipers are not recommended for full taper forks. Occasionally forks are manufactured with the blade thinner than the upright. Contact Cascade for verification of original blade thickness-fork identification number required, See stamping on fork both sides of upright.

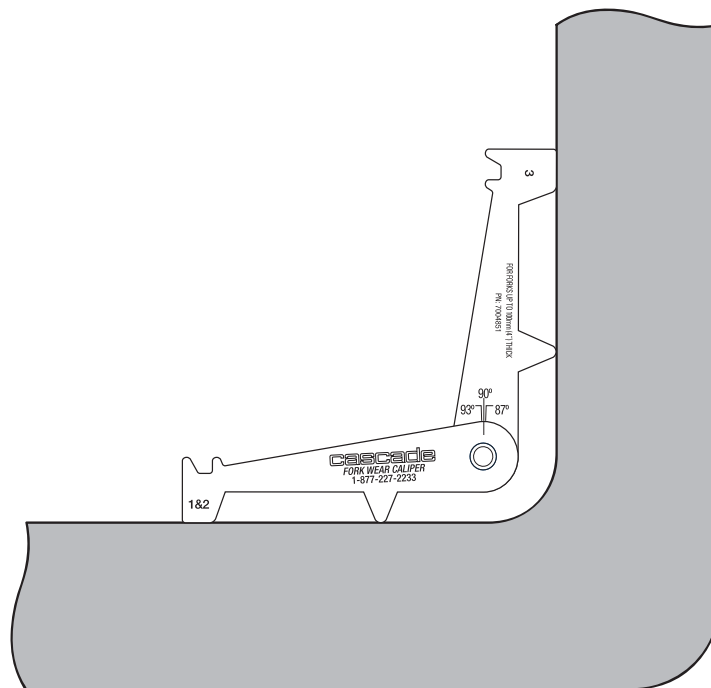
SUBJECT : FORK ARM WEAR CALIPER GUIDE

2. Checking The Fork Heel Angle

- A. Open the calipers to approximately 90° and place the calipers in the top inside heel area of the fork (on top of the blade).
- B. Ensure that the 2 lower pieces on the horizontal leg are both touching the top of the blade.
- C. Move the calipers towards the upright. Ensure that the caliper arms are both parallel to the blade and to the upright.
- D. Open/close the calipers so that the two similar extruding pieces on the vertical leg of the calipers both touch the upright/shank of the fork.
- E. When you are sure that all 4 points are simultaneously in contact with the fork, gently remove the calipers and look at the indicator lines found at the top of the hinge pin.

If the line on the horizontal leg (that points vertically) is found to lie beyond either the 93° or 87° indicator line, the forks should be marked to be checked for either permanent deformation, possible stress cracks or any other defect that could impede the safe use of the fork.

NOTE: Some forks are intentionally built with the fork angle either smaller or greater than 90° . These forks will need to be inspected by other methods.



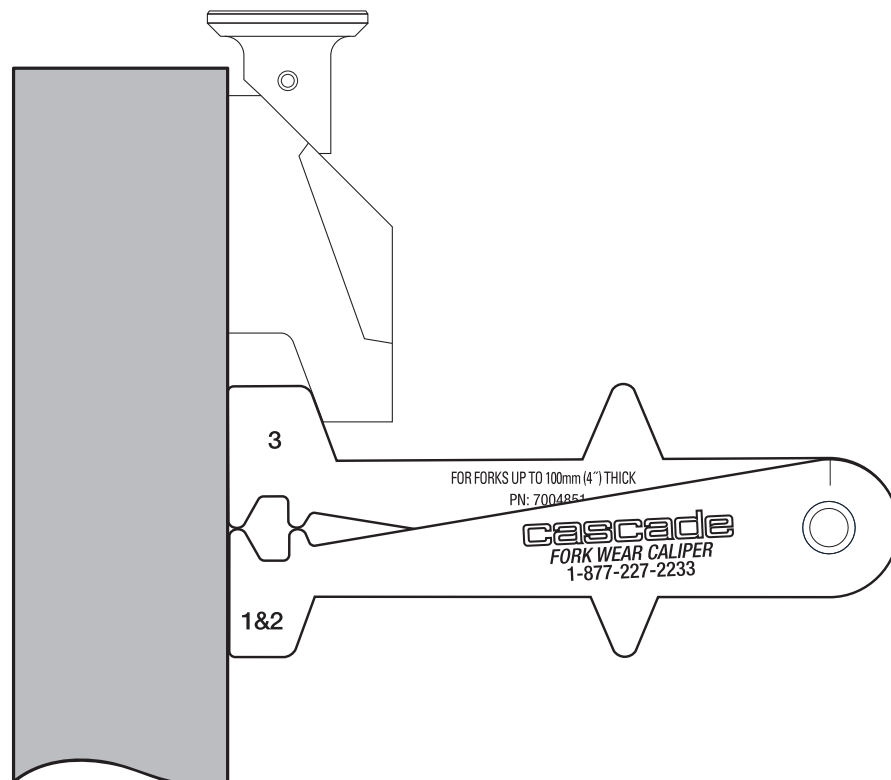
SUBJECT : FORK ARM WEAR CALIPER GUIDE

3. Checking The ITA Hook For Defects

- A. Select the correct Class ITA caliper-gauge for the appropriate ITA hook.
- B. Insert the caliper-gauge up into the hook recess with the corresponding 20° angle face contacting the 20° angle of the hook.
- C. Press the vertical face flat against the fork upright/shank and move the caliper-gauge up into the hook recess. The Caliper gauge must be held at 90° to the hook.

If the (lower) horizontal face of the caliper-gauge can go up high enough to make contact with the lower lip surface on the hook, this would indicate that the 20° angle of the hook is worn or deformed. Check hook welds and heel area for cracks.

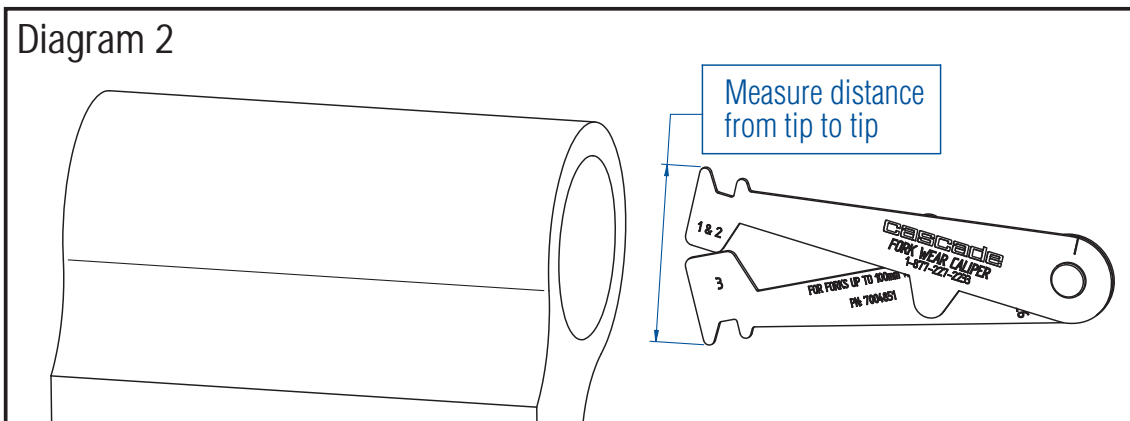
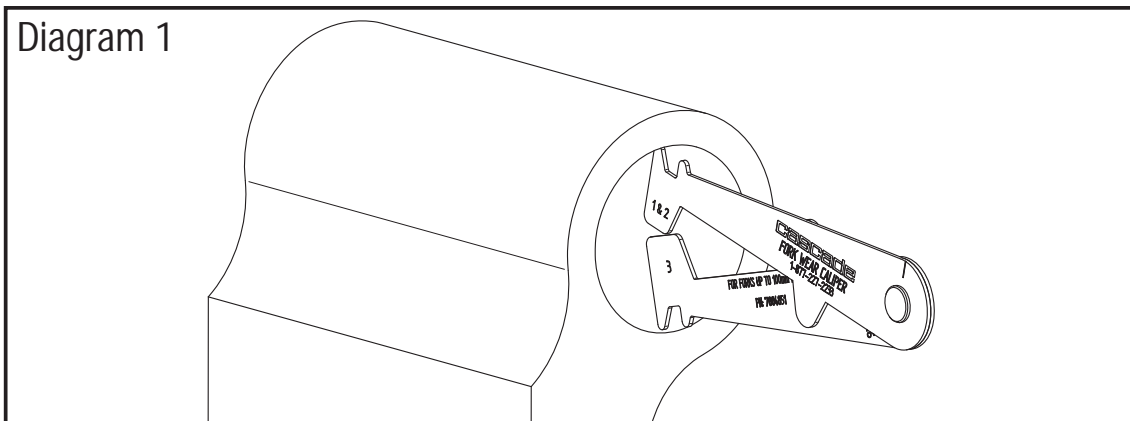
The Cascade Fork Caliper can gauge Class 1, Class 2 and Class 3 ITA Hook Profiles.



SUBJECT : FORK ARM WEAR CALIPER GUIDE

4. Measuring the bore on shaft/pin type forks

Insert the reversed caliper inside the eye of the tube (see diagram 1) opening the teeth until both sides of the teeth come in contact with the inside wall of the tube. Pull the caliper out and measure the distance from tip to tip (see diagram 2).



IMPORTANT NOTE!

The different forks and features shown in this catalog are informative only, and are displayed as examples of some of the many features we can provide. The adding or removing of any of these features to an existing fork/forks, can only be done by Cascade or an approved vendor.

When there are requirements for any new features, Cascade Engineering needs to be consulted to ensure that any additional work applied to the existing fork, will not impede it's intended capability or perhaps render it unsafe.

Prior approval for any work on Cascade forks is required from Cascade.

Please refer to the National Safety Standard:
ANSI/ITSDF B56.1-2009, 6.2.16

SCOPE

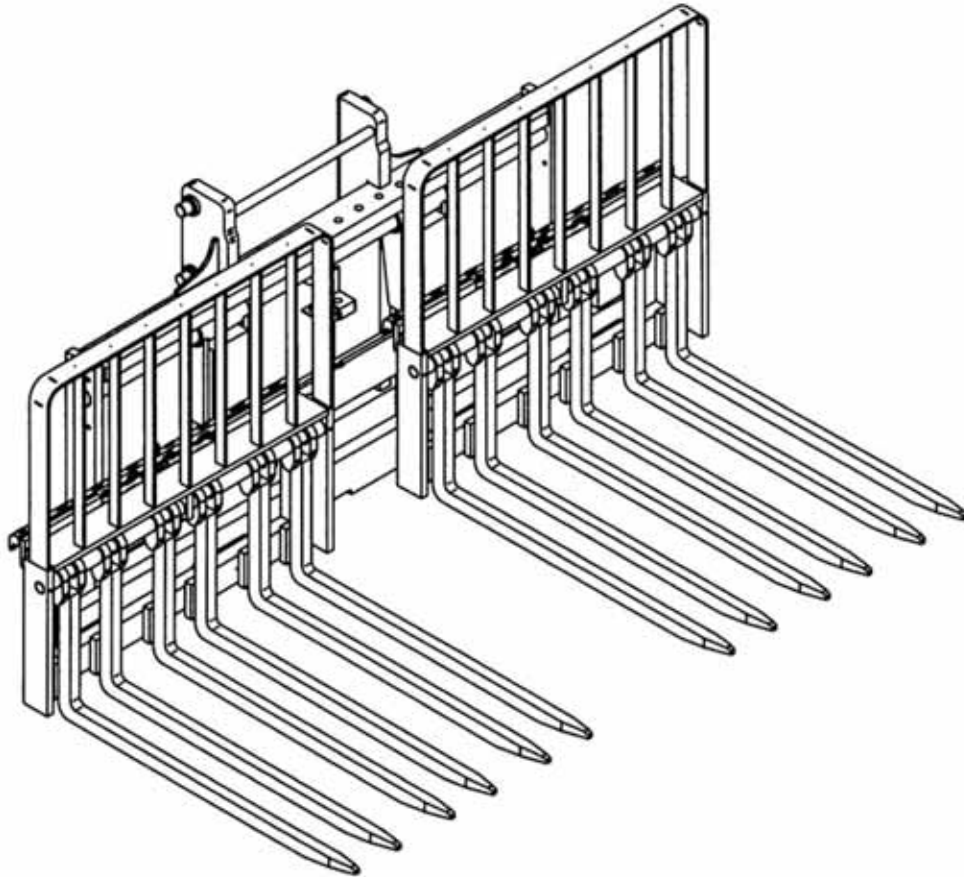
The intention of the "Fork Facts" catalog is to:

- Inform you of features we can provide for different fork applications
- Assist you with technical data
- Make you aware of the safety aspects related to building and using forks

SUBJECT : BLOCK HANDLING FORKS

APPLICATION

Block handling forks are used predominantly for lifting concrete or cement blocks in large numbers. They can be ordered in sets as required, depending on the load-width, configuration, and weight.



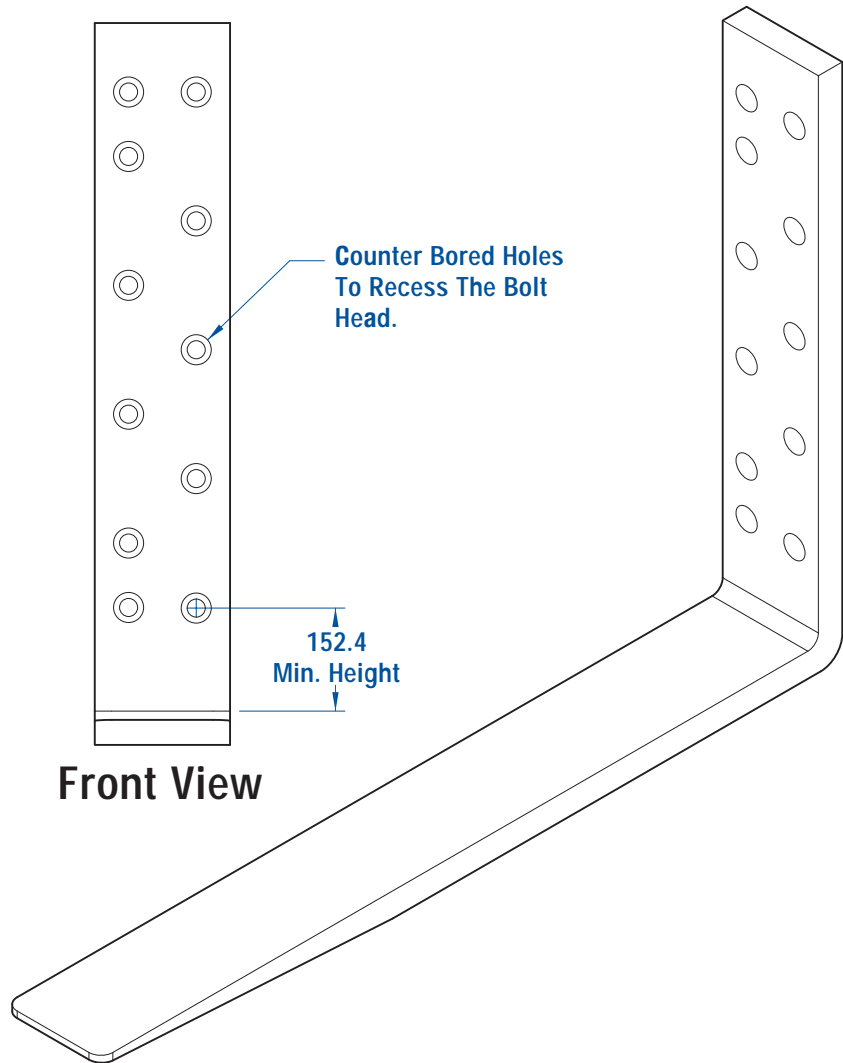
FEATURES

1. The forged heel is enlarged (bent and upset manufacturing process) for maximum strength.
2. The inside heel area can be ordered with an optional special "concave type" radius that will reduce damage to the edges of the product.
3. Some applications may require our optional elongated tube (floating eye) so that when the load is being set down on an uneven surface, the forks first being relieved of the load can rise. This prevents damage to the product when the forks are withdrawn.
4. Block handling forks can be ordered in any length required and are manufactured with tube, hook, or floating eye mountings.
5. Typical section sizes used for block handling forks are 2"x 1.5"(T x W) and 2"x 2"(T x W). Special sizes are available upon request.

SUBJECT : BOLT-ON FORKS

APPLICATION

"Bolt -on forks" are attached to the carriage (fork carrier) with bolts instead of hooks or a tube. This design greatly diminishes any movement of the forks when loaded or when the lift truck is in motion.



Front View

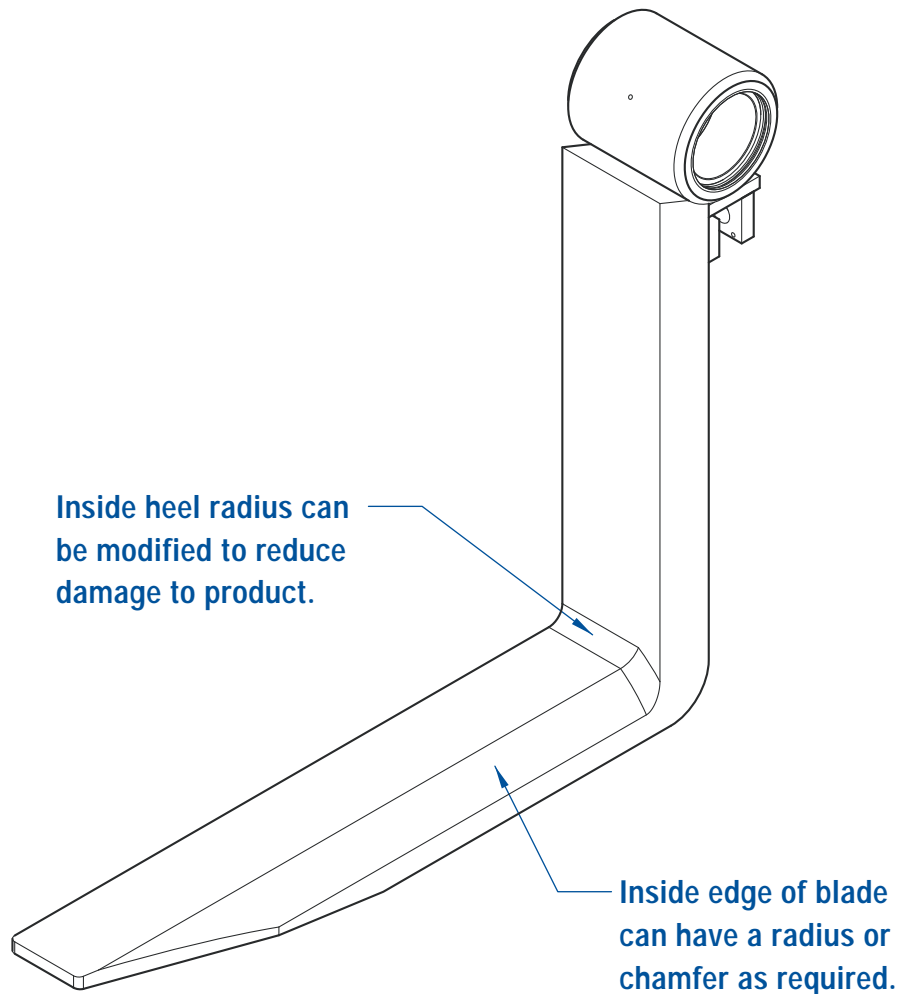
FEATURES

1. Usually the fork is bolted all the way up the upright.
2. In most instances, the bolt-on design reduces deflection in the upright of the fork, thus reducing the overall deflection.
3. The forks can either be bolted on from the front or the back of the carrier.
4. If fitted from the front, the holes will be counter-bored / sunk to alleviate projection of the bolt heads and damaging product.
5. Obtaining the correct bolt-hole pattern for each set of forks is very important. If measuring the pattern up on-site, it is important to first identify if the bolt pattern is imperial or metric. Attachment make and model information is also helpful.
6. Bolt-holes should not be drilled on the outside heel radius. The start of a bolt hole pattern should begin at a minimum of 152.4mm above the top of the blade.

SUBJECT : COIL HANDLING FORKS

APPLICATION

Chamfered or radiused coil handling forks are used to move steel coils, reels, etc when straddling the load is desired. Other products, such as concrete pipes, can also be moved with this type of fork.



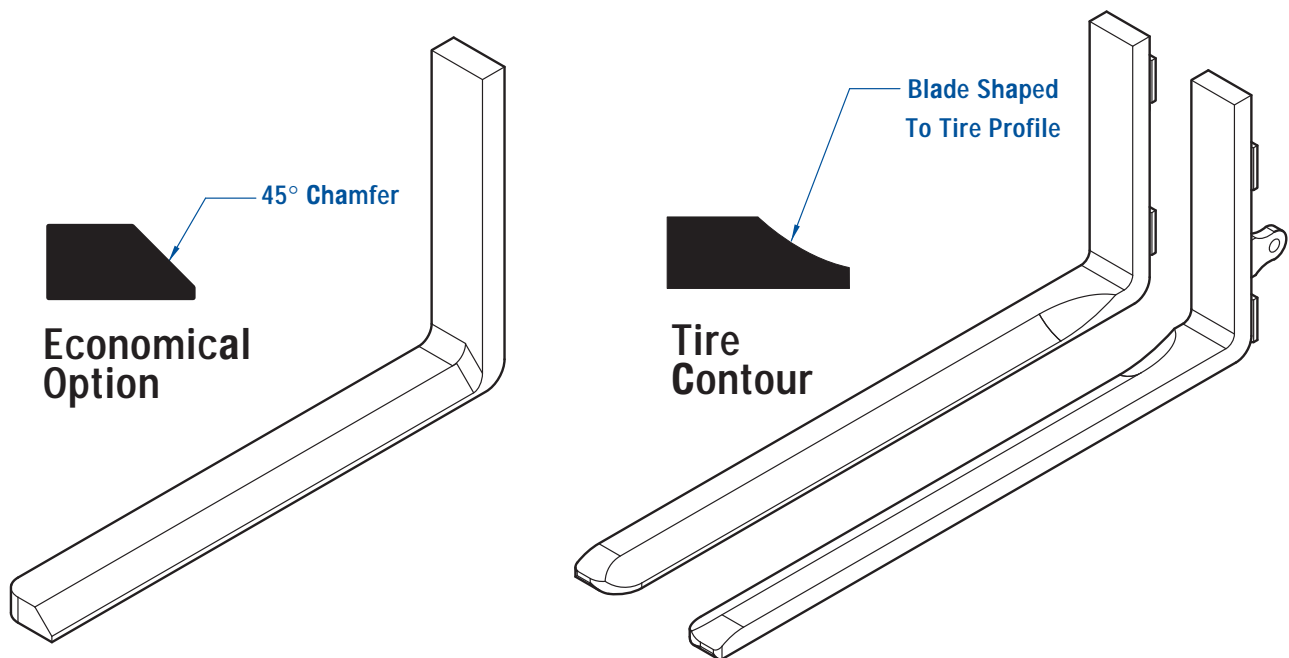
FEATURES

1. A specific chamfer or radius size for the inside of the blades can be recommended.
2. A custom radius can be applied if desired to reduce damage to the product.
3. The top of the upright can also be rounded to reduce damage to the product.
4. The chamfers / radiuses required to the inside edges of the blades will affect the lifting capacity of the forks. Check with Engineering for details.

SUBJECT : TIRE HANDLING FORKS

APPLICATION

Tire handling forks are used for lifting tires of all sizes. The blade can be custom shaped (profiled) for the variety of sizes (radiuses) of tires on the market. If used in a tire recycling environment, there will be a variety of types and sizes of tires to be handled. Where the damage to the load is not a priority, you could order a similar fork with a 45° chamfer on the edge of the blade. This is a more economical option.



FEATURES

1. The blades of the left and right hand fork have a special radius, as specified by the end user, to the top inside edge of each blade. The edges of this radius are finished with soft, round edges, so as not to damage new product.
2. These forks are usually fitted to the carriage (fork carrier) with bolts. It is imperative that the bolt pattern on the upright of each fork match that of the carrier. The bolt pattern on each fork must be accurately obtained from the end user in order to ensure that the blades match each other.



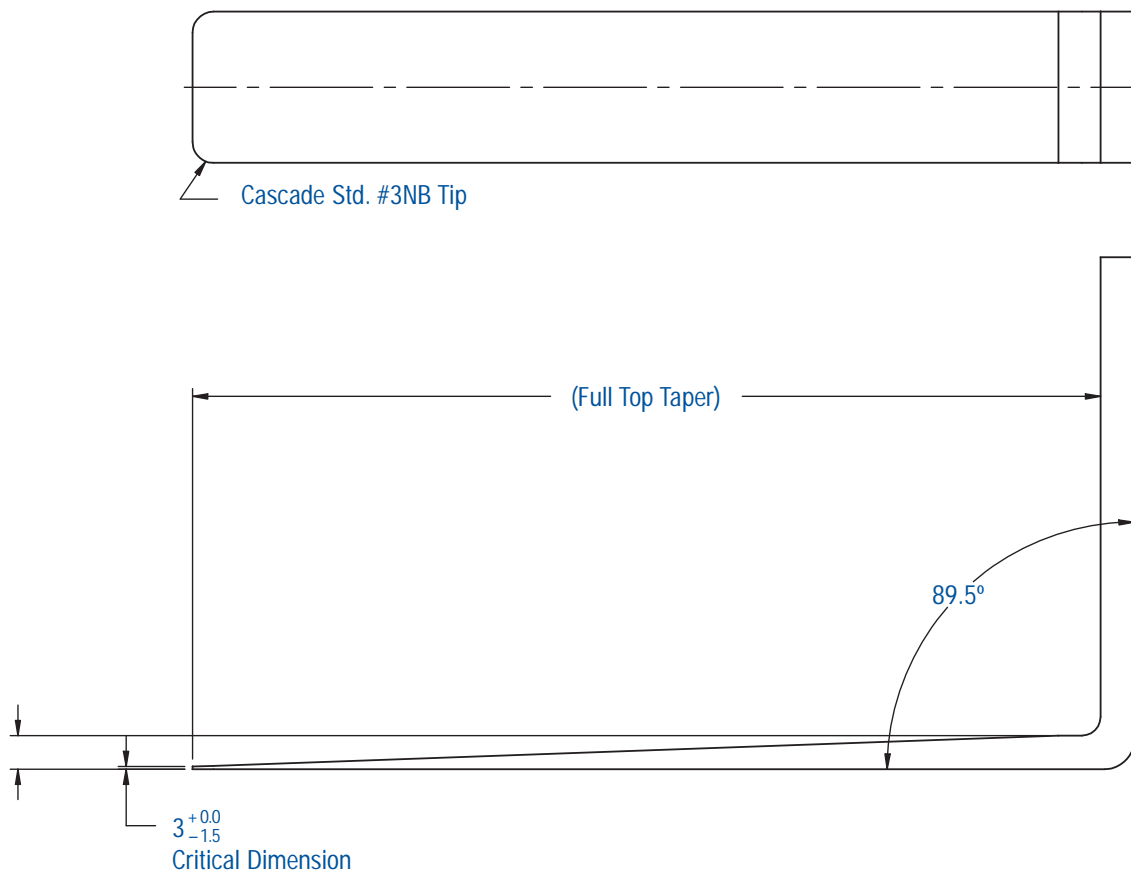
SUBJECT : CORRUGATED HANDLING FORKS (Box Tip)

APPLICATION

Corrugated handling forks are primarily used to wedge under and to lift corrugated sheets that are resting on a floor or similar flat surface, where there is no skid or spacer, separating it from this surface.

They can also be used for other types of product.

These forks can also be used to separate a load (such as thin steel plate, etc.) that has no spacers in between the product to allow for easy entry, and exerts minimal to zero damage to the product..



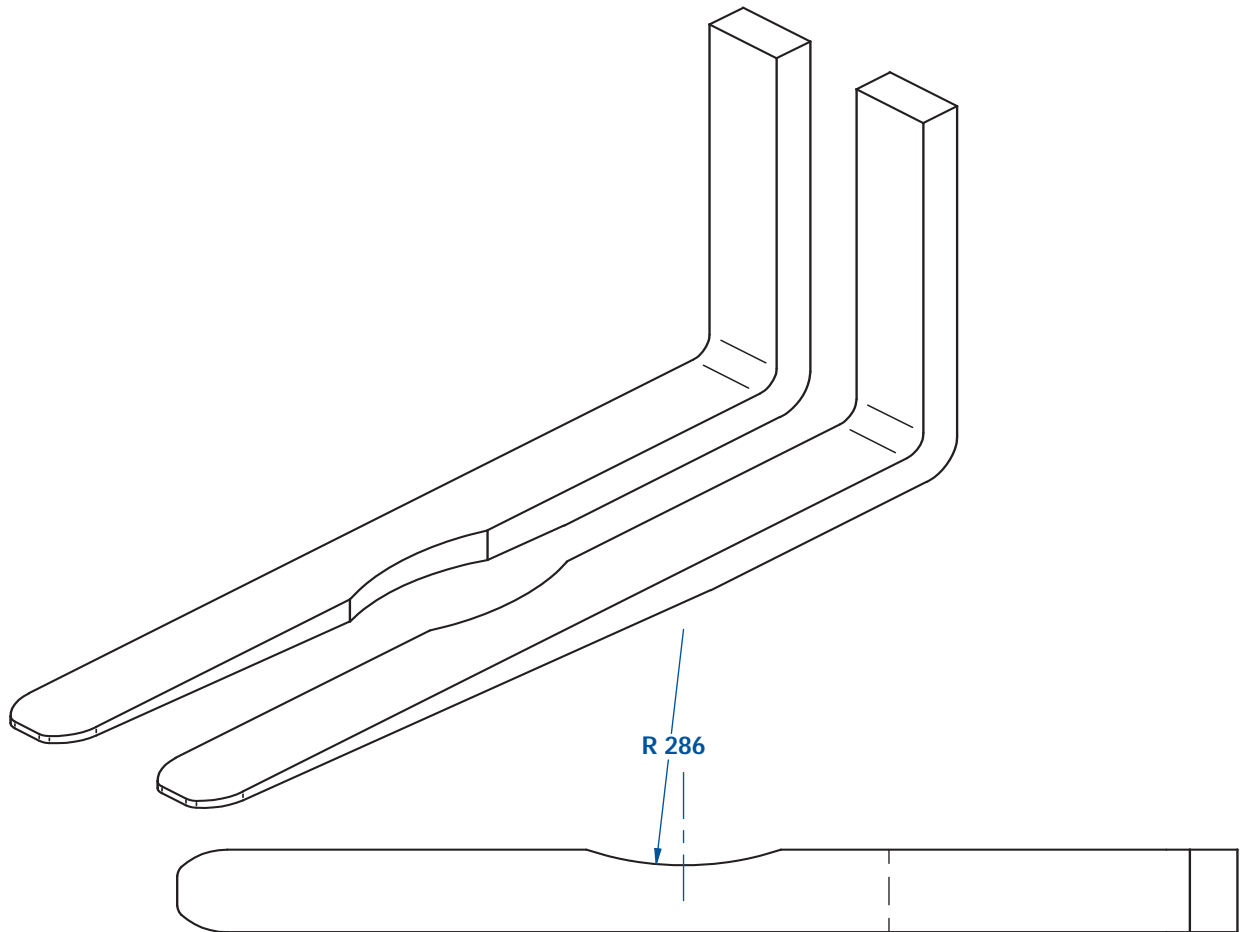
FEATURES

1. The fork blade is reduced in thickness at the tip to a sharp edge. The blade is "fully top tapered", and polished, thus providing a long easy transition in the thickness. The outside edges of the tip are rounded, again to allow for ease of entry.
2. This fork is also available with a "full bottom taper", when the application requires it.
3. Available in many different widths.

SUBJECT : DRUM HANDLING FORKS

APPLICATION

Drum handling forks are designed to be used for lifting one or two drums at one time. Usually these forks are used for moving the standard 45 imperial gallon (55 U.S.) drum. Cascade can also provide forks for custom applications if the radius of the drum should differ.



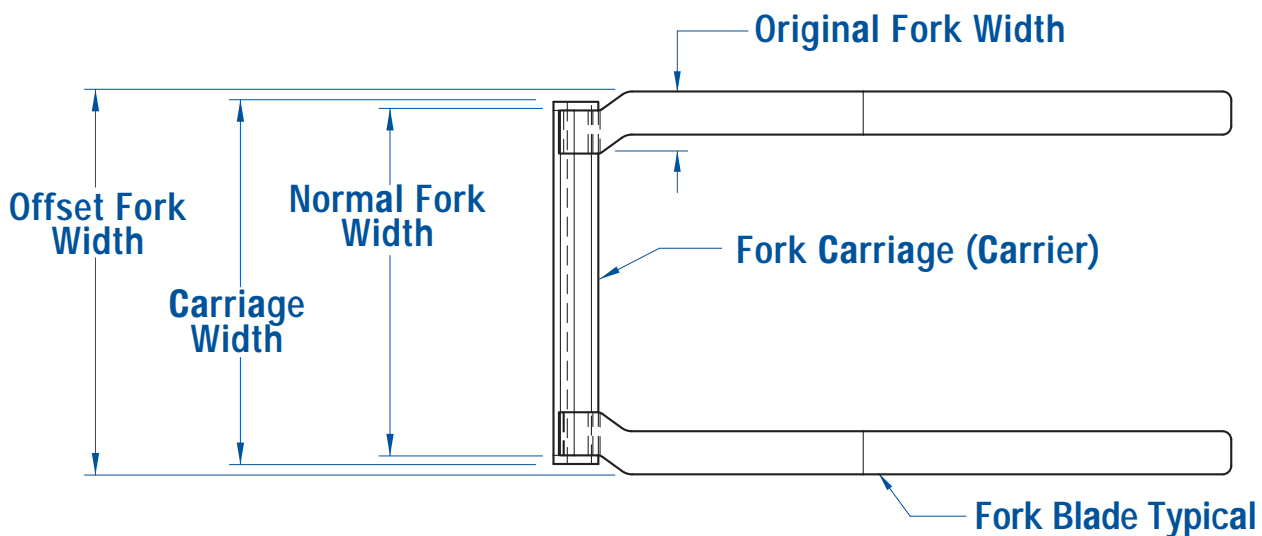
FEATURES

1. The blades of each of the left and right hand fork have an arc cut-away on the inside edge of the blade to match the drum diameter that is required.
2. Fork blades can be supplied with either one or two cut-outs.
3. The same forks can also be used for lifting conventional loads such as skids giving you a dual purpose attachment.

SUBJECT : OFFSET FORKS

APPLICATION

Offset forks are designed primarily for the purpose of enabling the forks on the lift truck to be wider than the carriage (fork carrier). It is important to note that by doing this the load capacity of the fork will need to be re-evaluated. Inset forks, which make the forks narrower than the carriage, can also be designed. Inset forks are usually required to fit around a vertical centre support bar on the carriage. Consideration should be given to the load now being carried on the extreme edges of the forks. This can impose some twisting and some additional load on the edges of the hooks.



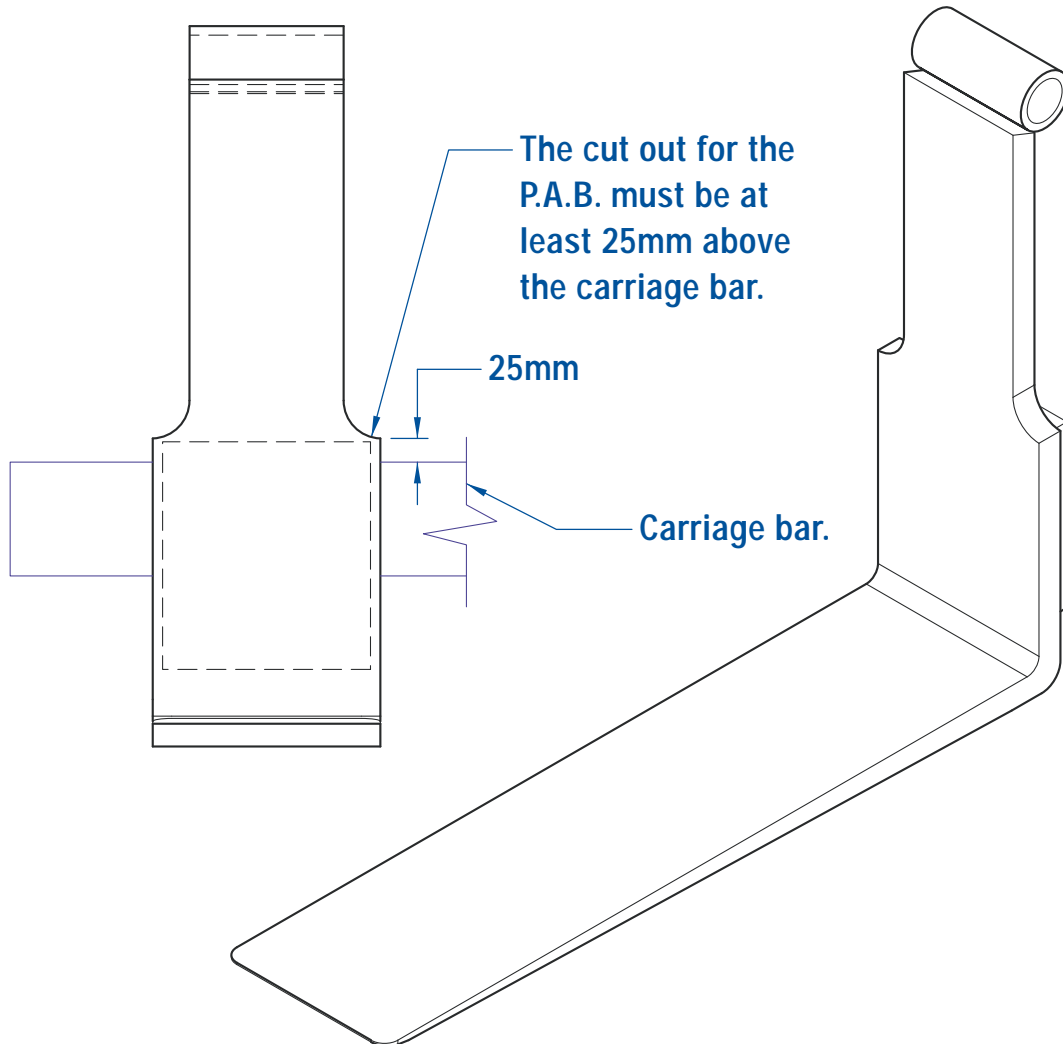
FEATURES

1. When offset, the blades of the left and right hand extend further out than the upright portion of the fork. Custom specifications will dictate what the required dimensions will be.
2. The opposite will apply to inset forks.

SUBJECT : PEEK-A-BOO FORKS (P.A.B.)

APPLICATION

Peek-A-Boo forks have been developed primarily to increase the visibility of the lift truck driver. This type of fork is usually wide, with a blade less than 50mm thick and used predominantly in the lumber industry. Reducing the shank width is possible because the stress exerted on the fork, while lifting, diminishes gradually as one progresses towards the top of the shank. All requests for P.A.B. forks should be confirmed with Engineering, as the cut out will be dependent on the load.



FEATURES

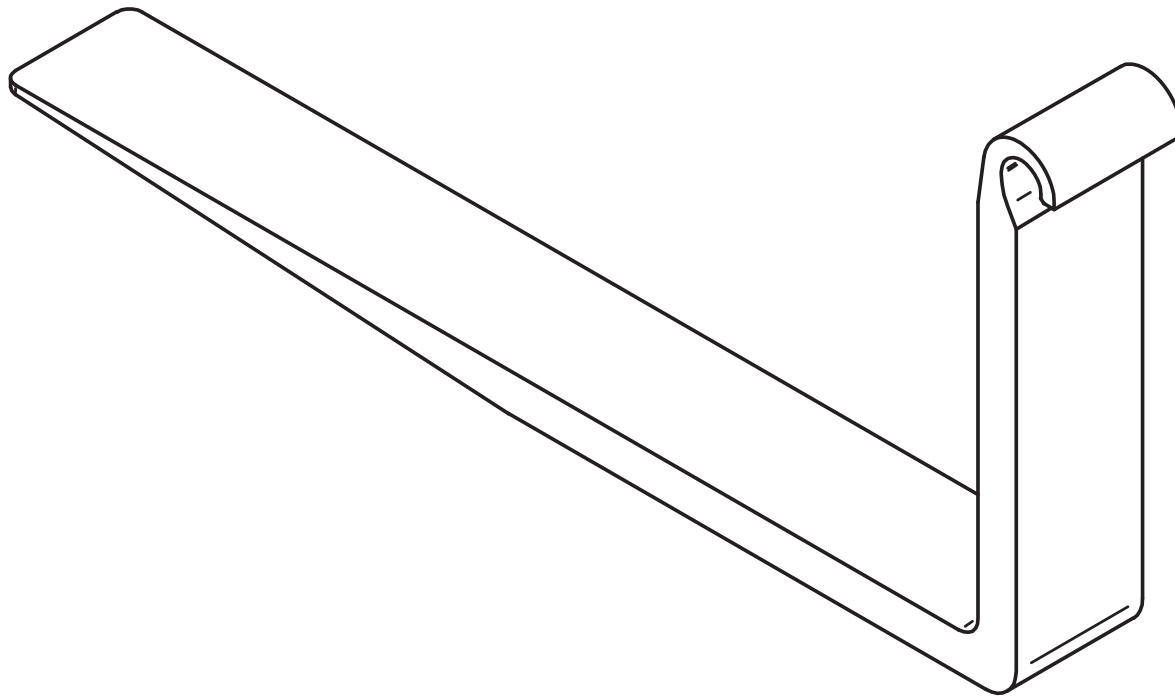
1. Peek-A-Boo's or P.A.B. forks can be custom ordered to fit either in a predetermined pocket, with a wider tube for stability or as per the end users request.
2. The lower part of the cut-away which forms the P.A.B. should never be less than 25mm above the top of the lower carriage bar.

SUBJECT : QUICK DETACH FORKS

APPLICATION

Quick Detach Forks are designed to be easily and quickly **removed from the lift truck's carriage when required. The key feature is the upper hook which allows the fork to be removed without the need to remove the carriage/fork 'retaining bar', which would result in 'down time' for the lift truck.

This design is usually required for big forks that are difficult to handle due to their weight. Another reason may be that the truck is capable of handling a different lifting tool for a different application (E.G. - a coil ram), therefore quick interchangeability is a huge time and financial advantage.



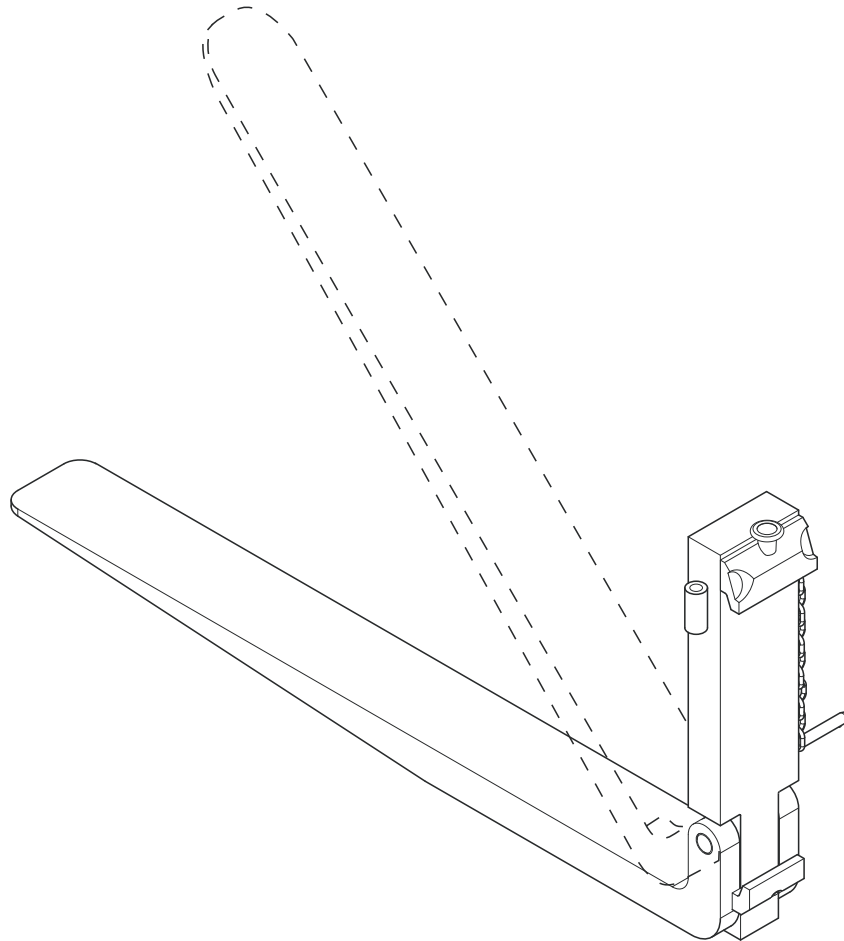
FEATURES

1. Quick detach forks have an open style hook which could either fit over a round or square carriage bar.
2. Depending on the surface the truck is working on, (indoor surface or outdoor uneven surface) each fork may require a lower retaining fixture to prevent the fork from unintentionally disengaging.
3. **Owners and operators must ensure a safe and secured method and area for removing the forks. National Safety Guidelines must be adhered to, to prevent any accidents or injury.

SUBJECT : FOLDING FORKS

APPLICATION

Folding forks are designed to fold at the heel on a pin, allowing the blade to be placed in a vertical position, and secured with a chain. Folding forks are often necessary when operating in a confined and restricted work environment and for lift trucks that are transported to different work sites on trailers.



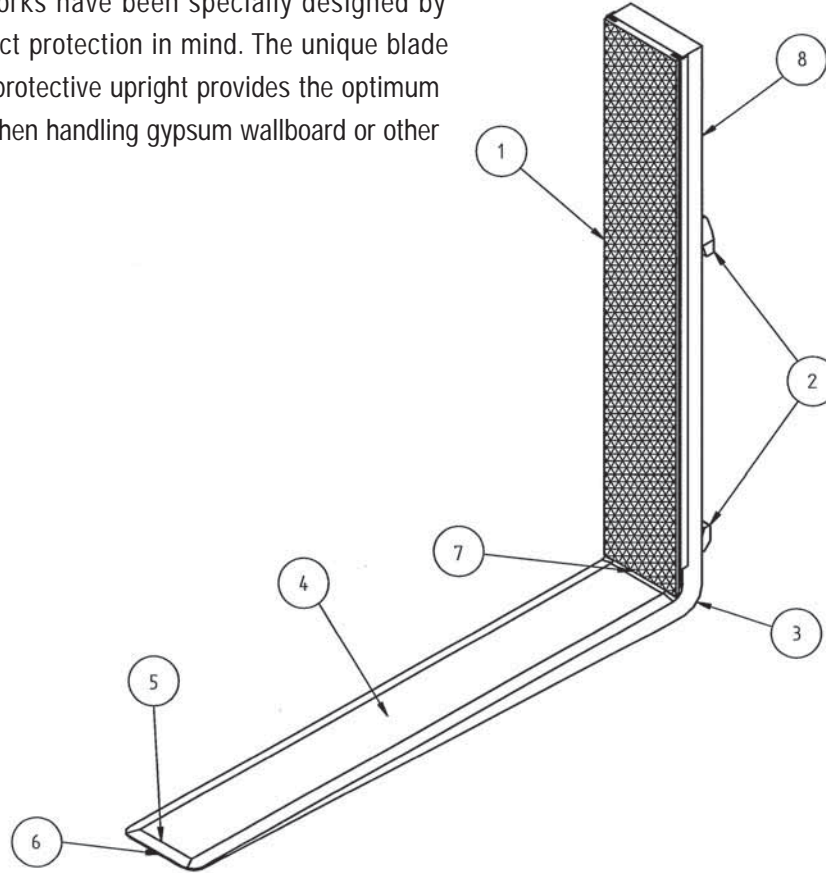
FEATURES

1. Folding forks consist of a blade, upright, pin and either a hook or shaft mount attachment.
2. There is a chain attached to a pin that wraps around the blade. The chain locks into a pin retainer to ensure the blade is held in the vertical position.
3. There are many variables to be considered when ordering a folding fork assembly, so please contact Engineering to assist you to design a safe and reliable product.

SUBJECT : GYPSUM HANDLING FORKS

APPLICATION

Gypsum handling forks have been specially designed by Cascade with product protection in mind. The unique blade design and vertical protective upright provides the optimum product protection when handling gypsum wallboard or other similar products.



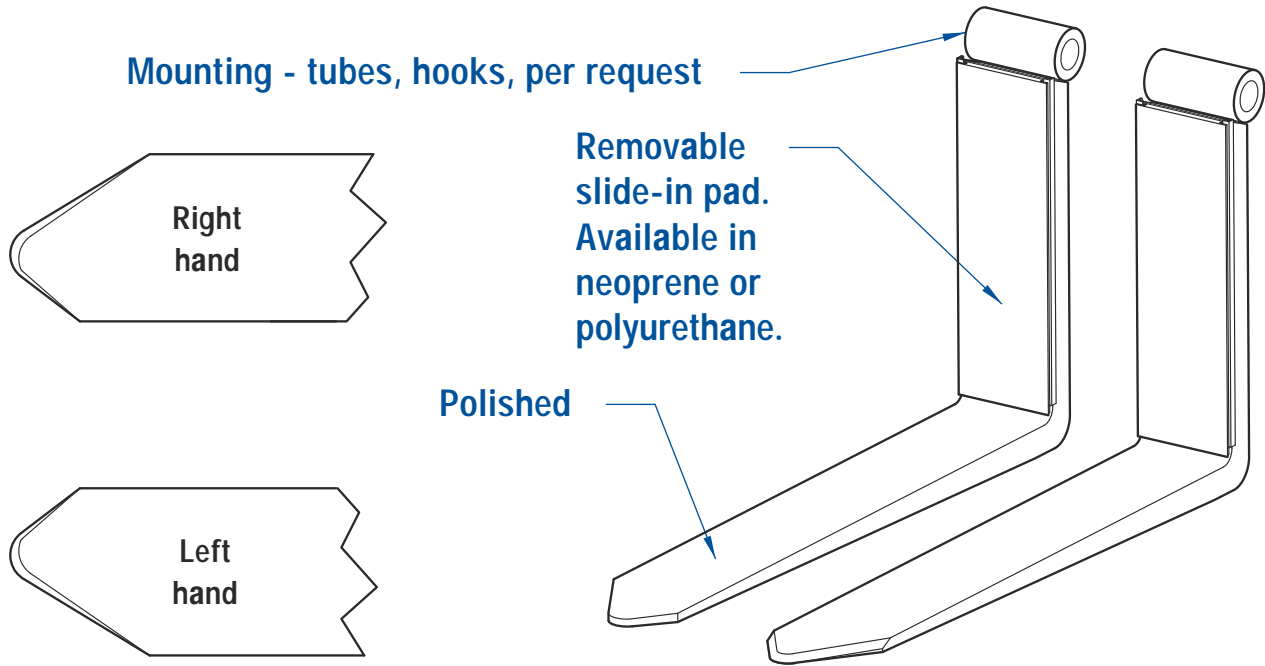
FEATURES

1. Cascade's slide in Urethane pad is rated at 70 Durometer. The hardness of the Urethane pad is similar to that of an automobile tire. Replacement pads are available. The pads are impervious to grease and do not mark the sheet as would other similar materials; it is extremely durable. The 70 Durometer pad is bonded to a steel plate for stability and rigidity. The slide-in feature of the pad makes replacement quick and simple, thus averting any expensive down time.
2. Hook or shaft type mountings are available to suit your lift truck.
3. Bent and Upset heel section.
4. The blade is polished and all sharp corners removed (preventing damage to gypsum board).
5. There is a double sided bevel at the tip for easy entry between gypsum sheets.
6. Fork widths are normally up to 300mm (12").
7. Square corner in heel prevents damage to edge of gypsum sheet.
8. High back support (if required).

SUBJECT : TIN PLATE FORKS

APPLICATION

Tin plate forks are used to load can forming machines.



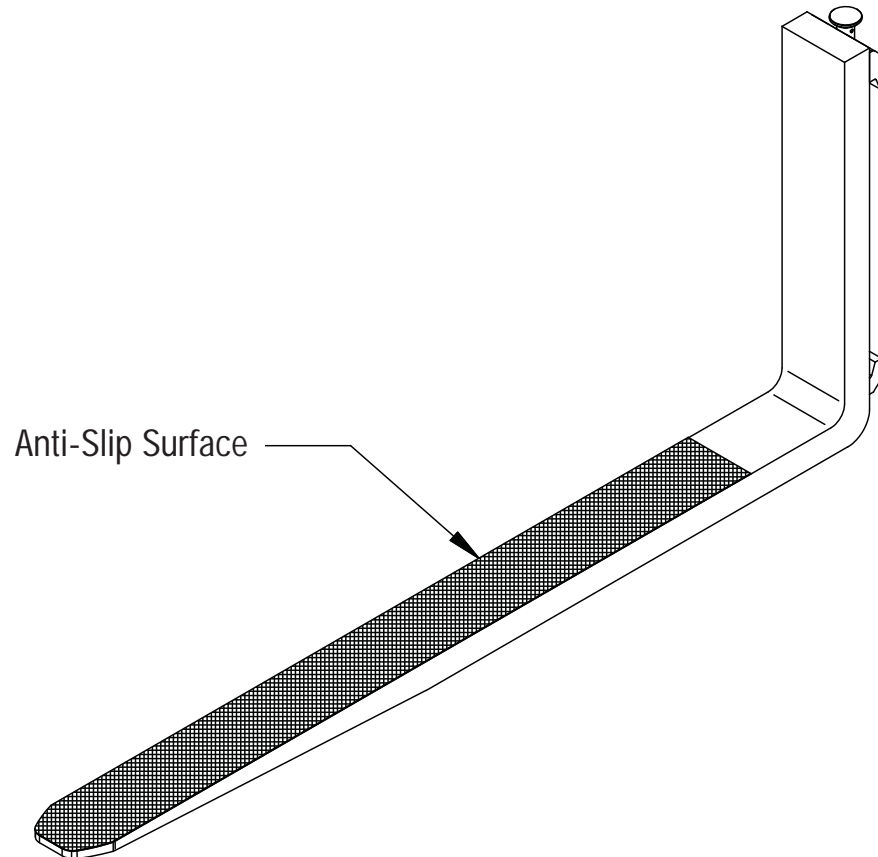
FEATURES

1. The tapered and offset tips are designed for easier entry into small skids.
2. The polyurethane backing is to protect the steel sheets from indentations, which could cause the forming machine to jam up and stop. The "slide in" polyurethane backing on the upright is removable and can also be supplied in neoprene.

SUBJECT : ANTI-SLIP FORKS

APPLICATION

Designed primarily to be used for handling plastic pallets, Anti-Slip Forks have a durable abrasive coating applied to the top of the blade. The coating is a hardened steel alloy consisting of sharp peaks and valleys that provides a jagged surface to grip the pallet. The added grip helps to ensure that loads remain safely on the forks while moving, changing direction or stopping.



FEATURES

1. Superior grip over regular forks.
2. Hardened abrasive surface (55-63 Rockwell C).
3. Coating adds minimal thickness to the fork.
4. Uniform surface ensures minimal damage to pallets and product.
5. Forks are also suitable for general applications including wooden pallets.
6. Positive feedback from current users.

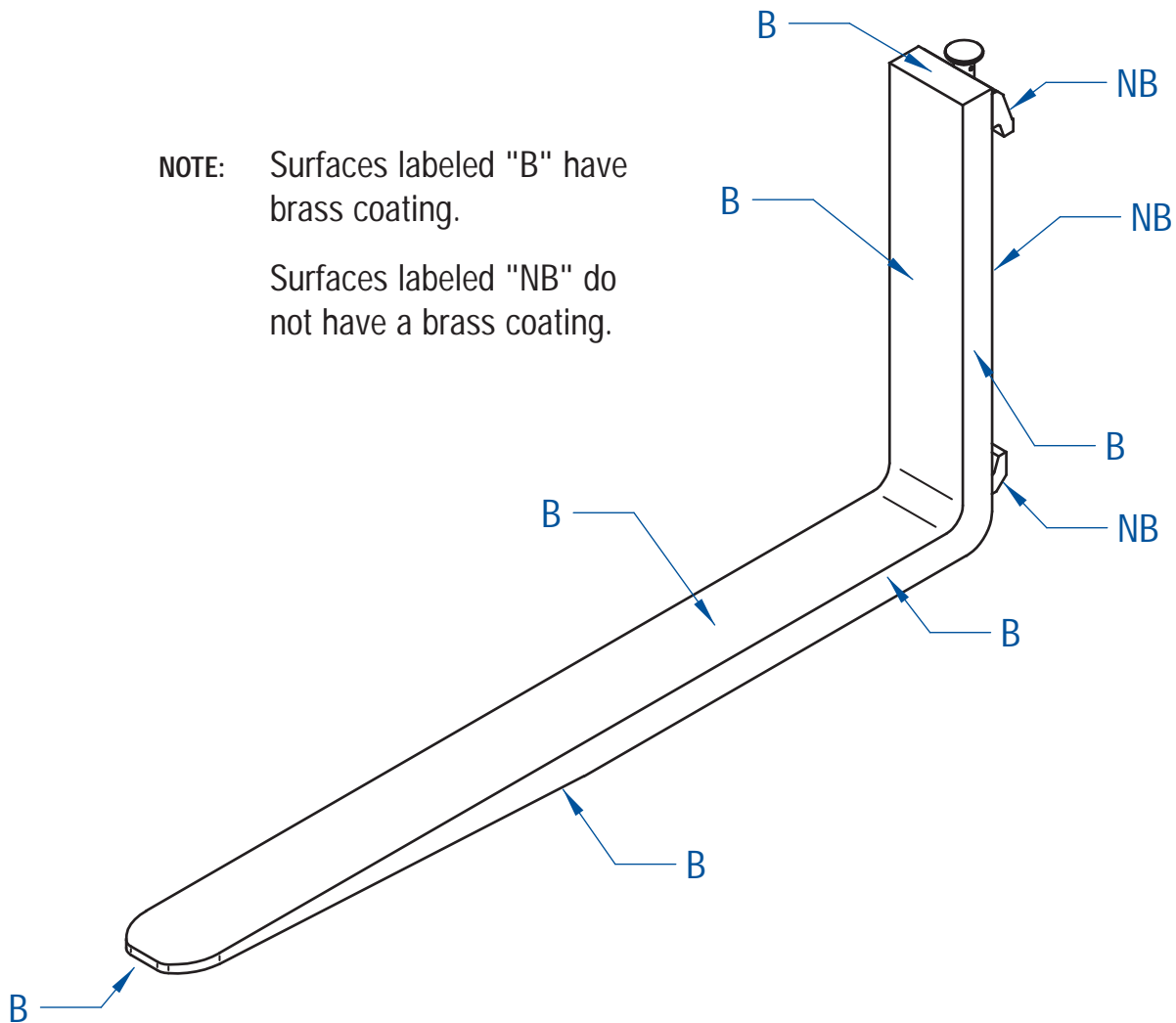
NOTE: While Anti-Slip Forks are mainly intended for handling plastic pallets they may be used in alternate applications such as handling product in cold storage facilities, etc. They are not recommended for use when contacting other metal or hard surface loads.

SUBJECT : SPARK RETARDANT FORKS

APPLICATION

Spark retardant forks are used on lift trucks operating in hazardous locations. These include places such as chemical plants, grain elevators, mines, paint plants, munitions, arsenal manufacturing, and storage facilities.

NOTE: Surfaces labeled "B" have brass coating.
Surfaces labeled "NB" do not have a brass coating.



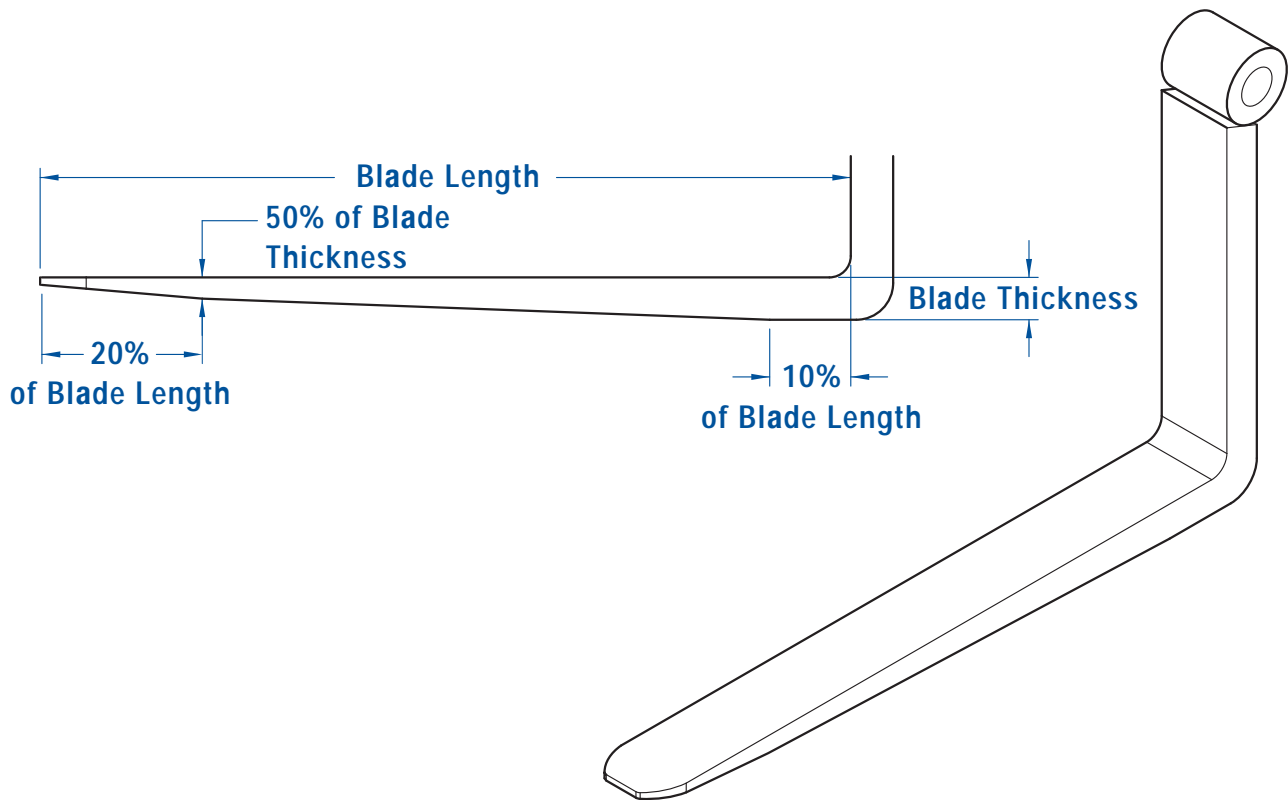
FEATURES

1. The most popular spark retardant fork is covered in ASTM B36 alloy 6 brass that is 0.125" thick, (except rear of upright and hooks) and brazed 100% along all seams.
2. Similarly coated forks (using stainless steel) are also available for the food industry though these are not spark retardant.

SUBJECT : TWO STAGE TAPER

APPLICATION

The use of 2" x 4" timber spacers, designed to separate lumber stacks has diminished in size over the years. This has resulted in smaller spaces between the stacks. When handling longer or double depth stacks of lumber, a fully tapered fork was tried, but was prone to deflection, causing unstable load conditions. Hence the two stage Tapered Fork was developed to address and resolve these concerns. This design is recommended on forks 72" and longer.



FEATURES

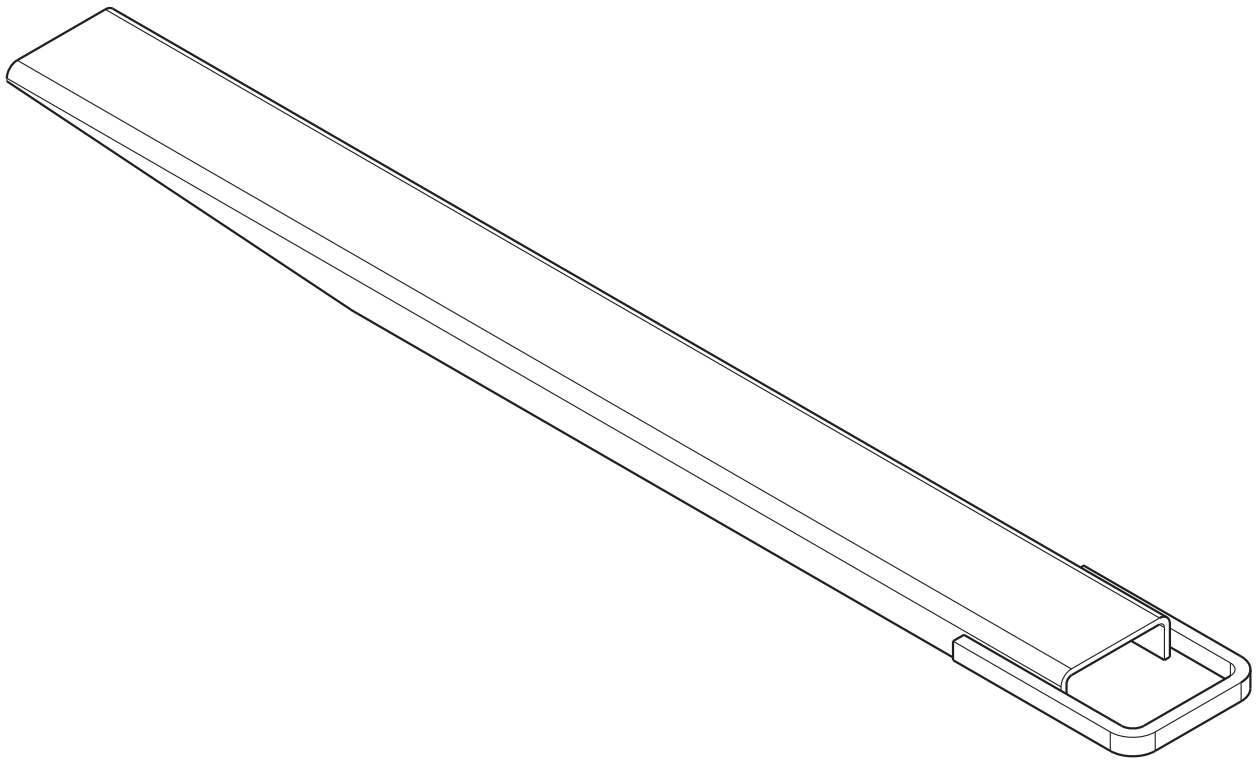
1. There is a two stage taper factored into the blade design.
2. There is a shorter but more durable slim tip for easy entry into the stack.
3. 10% of the blade near the inside of the heel is now at full thickness, providing increased rigidity.
4. 20% from the tip of the fork is now 50% of the full thickness of the blade, thus reducing fork deflection.
5. The top of the blade can be polished to reduce friction when engaging a load.

SUBJECT : FORK EXTENSIONS

APPLICATION

Fork extensions are used to compliment a fork that is lifting a load that is longer than the fork. Extensions are designed for uniform loading; they should never be tip loaded. The length of the extension must not be more than 1.5 x the length of the fork blade.

EG: Fork blade length=1219, (48")...Extension length=1829 (72")



FEATURES

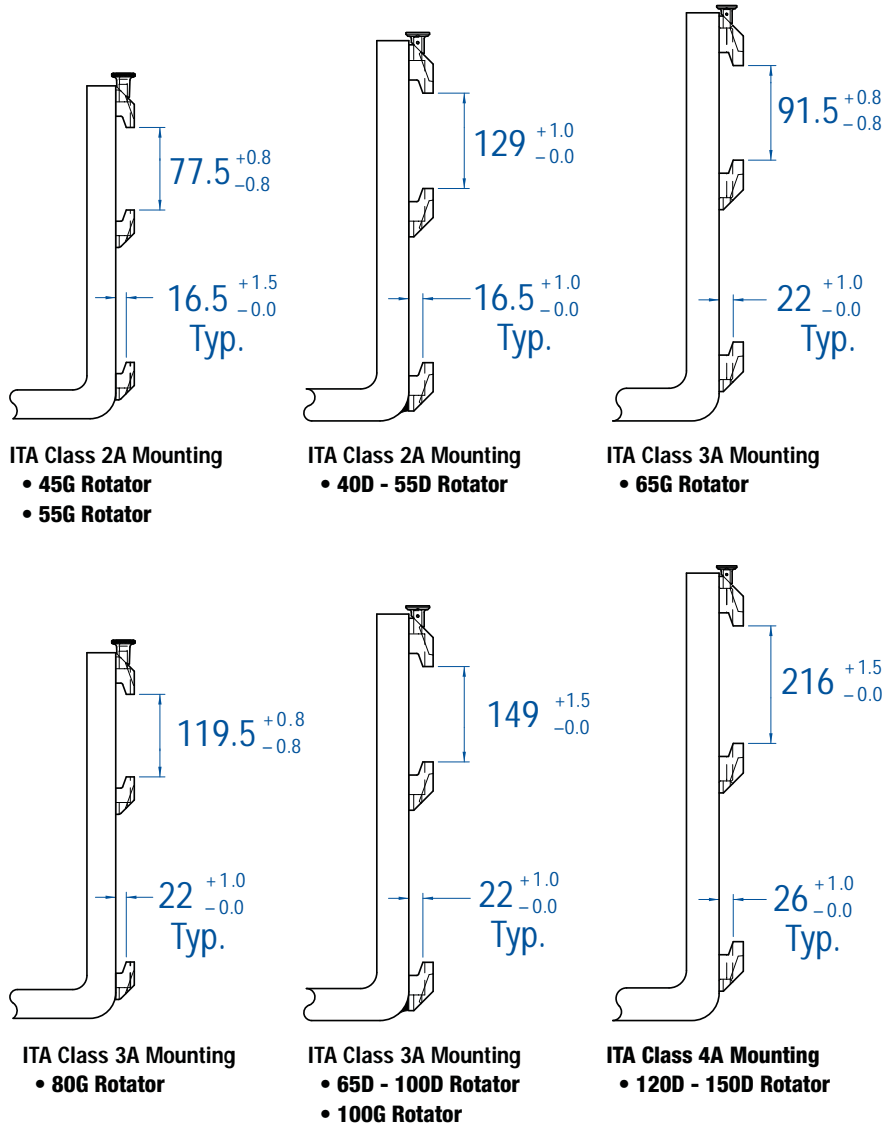
1. Fork extensions are readily available to fit 100, 122, 150 and 180mm wide forks.
2. Fork extensions for the above widths can be acquired up to 2438mm long. (96")
3. Heavy-duty and any special extensions are available upon request.
4. Fork extensions are built in compliance with the ANSI/ITSDF Standard, B56.1-2005.

For install instructions please refer to Cascade Technical Bulletin #6803992

SUBJECT : ROTATOR - HOOK FORKS

APPLICATION

Rotator hook forks are attached to a rotator attachment, which can invert the forks. Usually the forks fit into pockets in a bin that needs to be tilted or inverted to empty the contents.

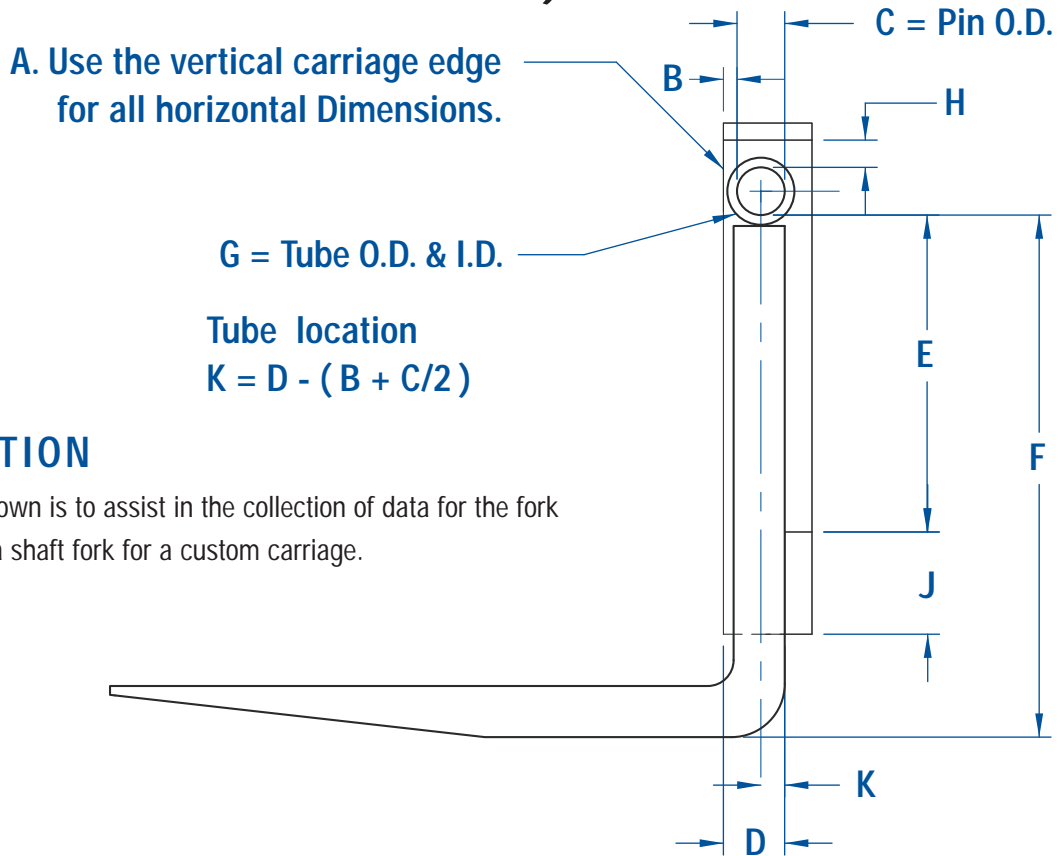


FEATURES

Rotator Forks:

1. Each fork has 3 'upper' hooks, one at the top, middle and bottom of the upright. (The lower hook would be on top when inverted, therefore it requires the strength of an 'upper' size hook).
2. The middle hook is at a special spacing (different for each of class 2, 3, & 4).
3. The capacity is reduced by 15% to compensate for the fork when in the inverted position.

SUBJECT : COLLECTING SHAFT FORK DATA (MEASURING THE CARRIAGE)



A. Use the vertical carriage edge for all horizontal Dimensions.

G = Tube O.D. & I.D.

Tube location
 $K = D - (B + C/2)$

APPLICATION

The diagram shown is to assist in the collection of data for the fork when ordering a shaft fork for a custom carriage.

FEATURES

- A. Use the outer straight edge of the vertical carriage support at one side (left or right) as a common datum to measure from.
- B. Measure horizontally across to the front of the shaft that supports the fork.
- C. Measure the diameter of the shaft. (Preferably away from the center of the shaft as it may be worn.)
- D. Measure horizontally across to front face of the lower carriage bar.
- E. Measure vertically from the underside of the shaft to the top of the lower carriage bar.
- F. First check for wear on the underside of blade just in front of the outside heel, if there is no wear, lower the forks onto a flat smooth surface and measure from that surface up to the underside of the shaft to get a vertical dimension.
- G. Measure the I.D. and O.D. of the tube. Check if the tube has a bushing in the I.D.
- H. Check for any other restrictions for the tube that can limit the tube O.D. such as a top carriage cross-member.
- J. Measure the carriage bar height.
- K. Use the TUBE LOCATION formula above to establish; INSET, OFFSET or INLINE value.

SUBJECT : SHAFT FORKS

APPLICATION

Shaft forks are used as an alternative to hook forks. They are also referred to as Pin Type forks. Shaft forks are more readily found on larger lift trucks, although there are a number of small lift trucks with a pin type carriage. There are a large variety of sizes of shaft forks to be found in the materials handling industry.

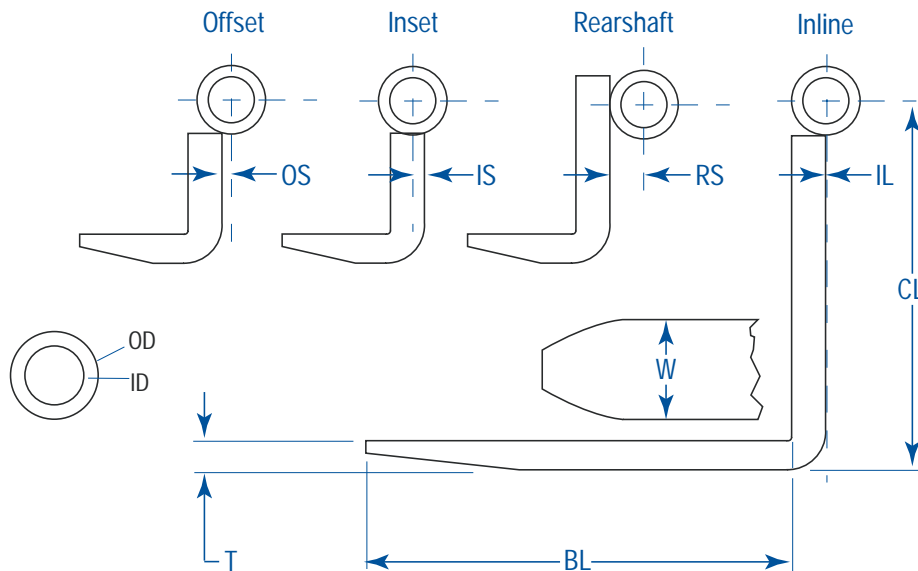
FORK SPECIFICATIONS

Clearance must exist between shaft and tube ID.

CL _____ To Centerline of Tube
 OS _____ Offset
 IS _____ Inset
 RS _____ Rearshaft
 IL _____ 0" _____ Inline

Choose one style only. Dimension required.

T _____ Thickness
 W _____ Width
 BL _____ Length
 O.D. _____ Outside Diameter
 I.D. _____ Inside Diameter
 S.D. _____ Shaft/Pin Diameter on Carriage



FEATURES

When ordering a shaft fork, the following information is important due to the variety of configurations in the field.

1. Truck make and model number.
2. **CL**: CENTER-LINE OF TUBE.
3. **OS**: OFFSET, **IS**: INSET, **RS**: REARSHAFT or **IL**: INLINE.
4. **T**: thickness, **W**: width and **BL**: length of blade.
5. Outside and inside diameter of tube. (**O.D.** & **I.D.**).
6. **SD**: Shaft diameter (fork carrier shaft pin diameter on carriage).

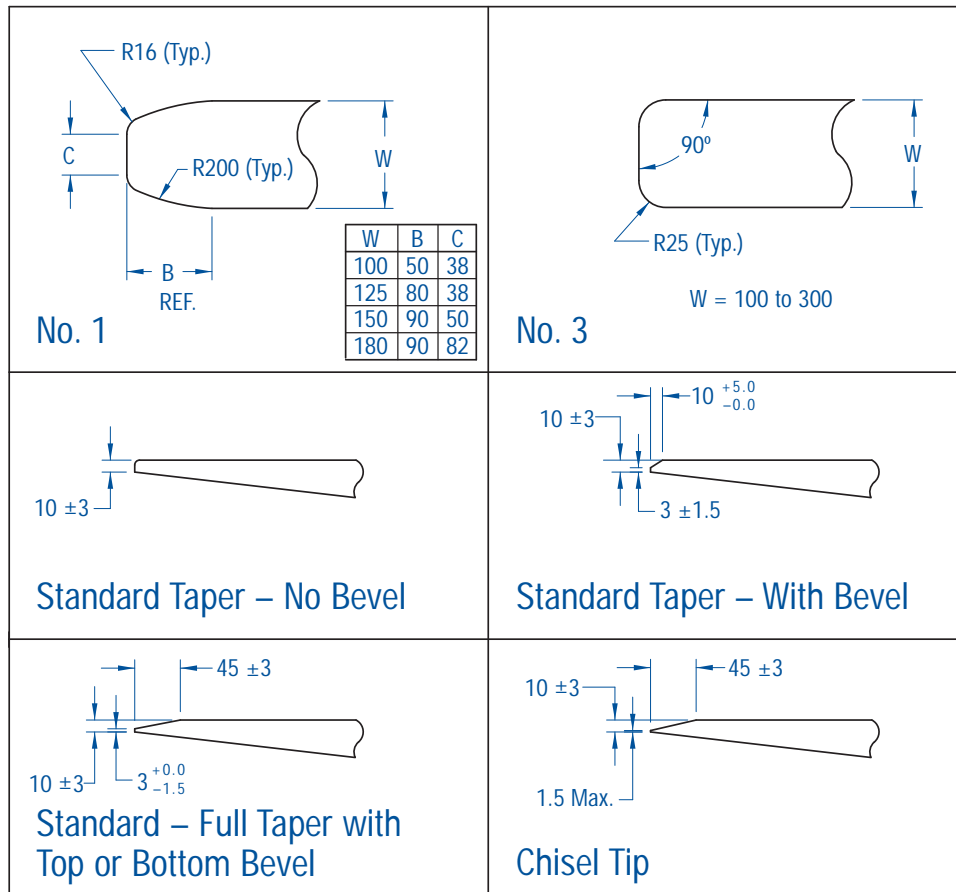
SUBJECT : FORK TAPERS, TIPS & TIP BEVELS

APPLICATION

Fork tapers are required to enhance the ease of travel of the fork when engaged into a load.

Fork tips and tip bevels are required for ease of entry into a load, depending on the application.

These three features should be carefully selected when deciding on how the tip of the fork will engage into a specific load.



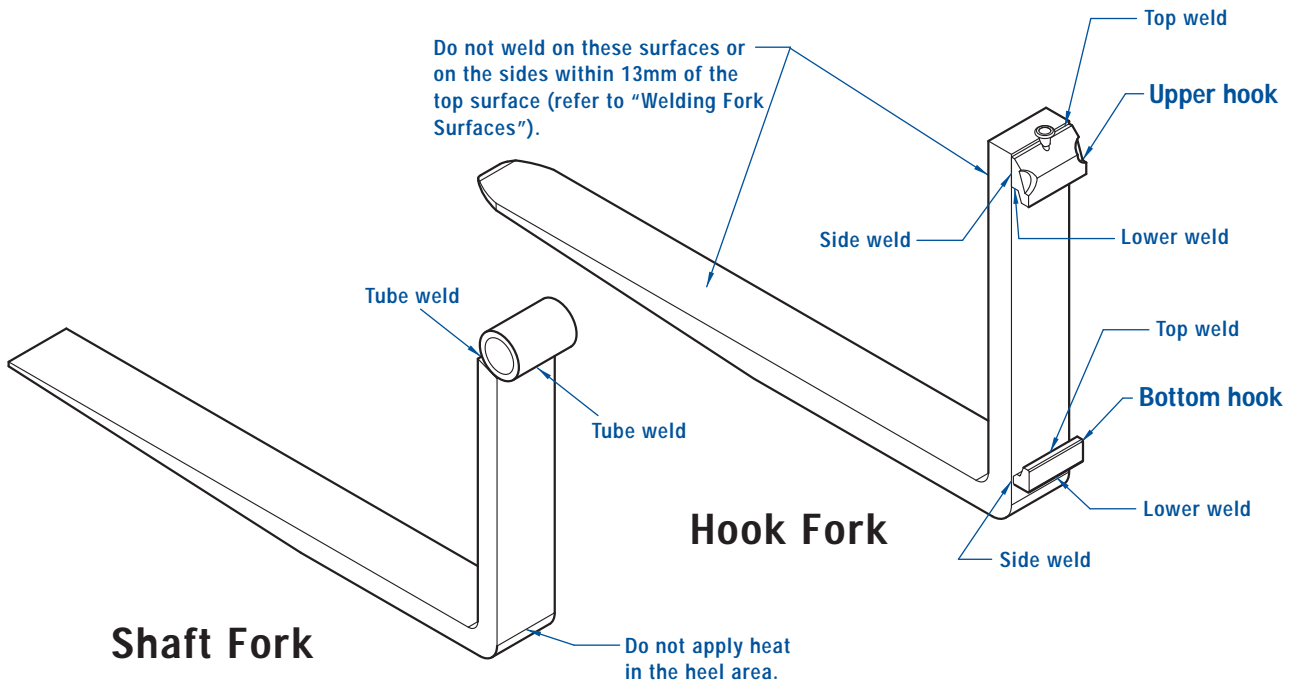
FEATURES

1. Careful choice of a tip configuration will enhance the fork's functionality.
2. There are 2 commonly requested top tip profiles:- NO.1 & NO.3 (refer to diagram)
3. Tips can be ordered with or without a bevel.
4. Bevels can be requested. There are 4 basic designs (refer to diagram).
5. Tapers can be ordered as required. There are 4 basic designs.
6. A selection of the variables above can be custom ordered, recommended, or come standard with a specific fork requirement.

SUBJECT : MODIFICATIONS TO FORKS

APPLICATION

Modifications and additions shall not be approved by Cascade unless the changes are made by Cascade or an approved supplier.

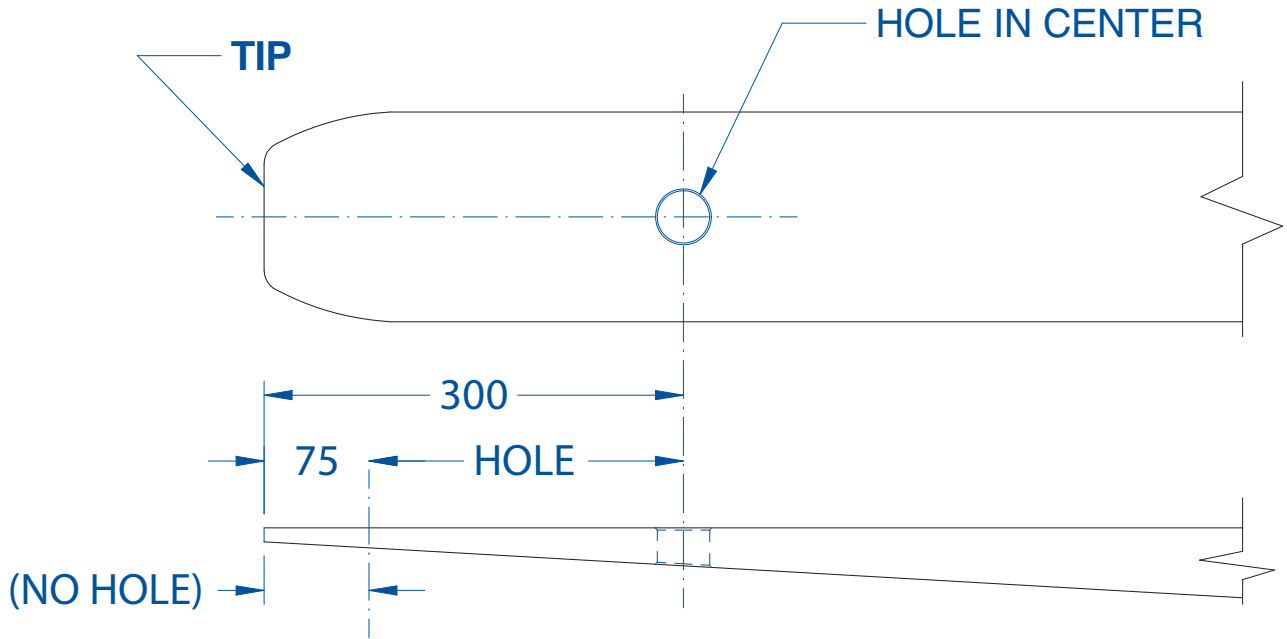


Refer to the diagram provided above for a complete understanding of the critical elements and locations on a fork. Refer to "Welding Fork Surfaces" for additional information.

SUBJECT : HOLES IN FORK BLADES

APPLICATION

Cascade can provide a drilled hole in the fork tip area. The hole size can be up to 25% of the blade width at the hole location. The top and bottom of the hole will be countersunk to remove all sharp edges.



**HOLE POSITION:
BETWEEN 75mm & 300mm MAX' FROM THE TIP**

FEATURES

The hole, or any lifting device in the hole, must not be used for pushing, pulling or side-loading, as a fork is an attachment that is designed for lifting and lowering only. Vehicles such as tractors are better suited for pushing and pulling applications.

Tip loading or prying with the tip is prohibited.

If you intend to have a 'hole feature' added to an existing fork:

- Please refer to the IMPORTANT NOTICE at the beginning of the Fork Facts section.
- A new LOAD & LOAD CENTER must be established for this new lifting position, when a hook or similar lifting device is suspended from the hole.

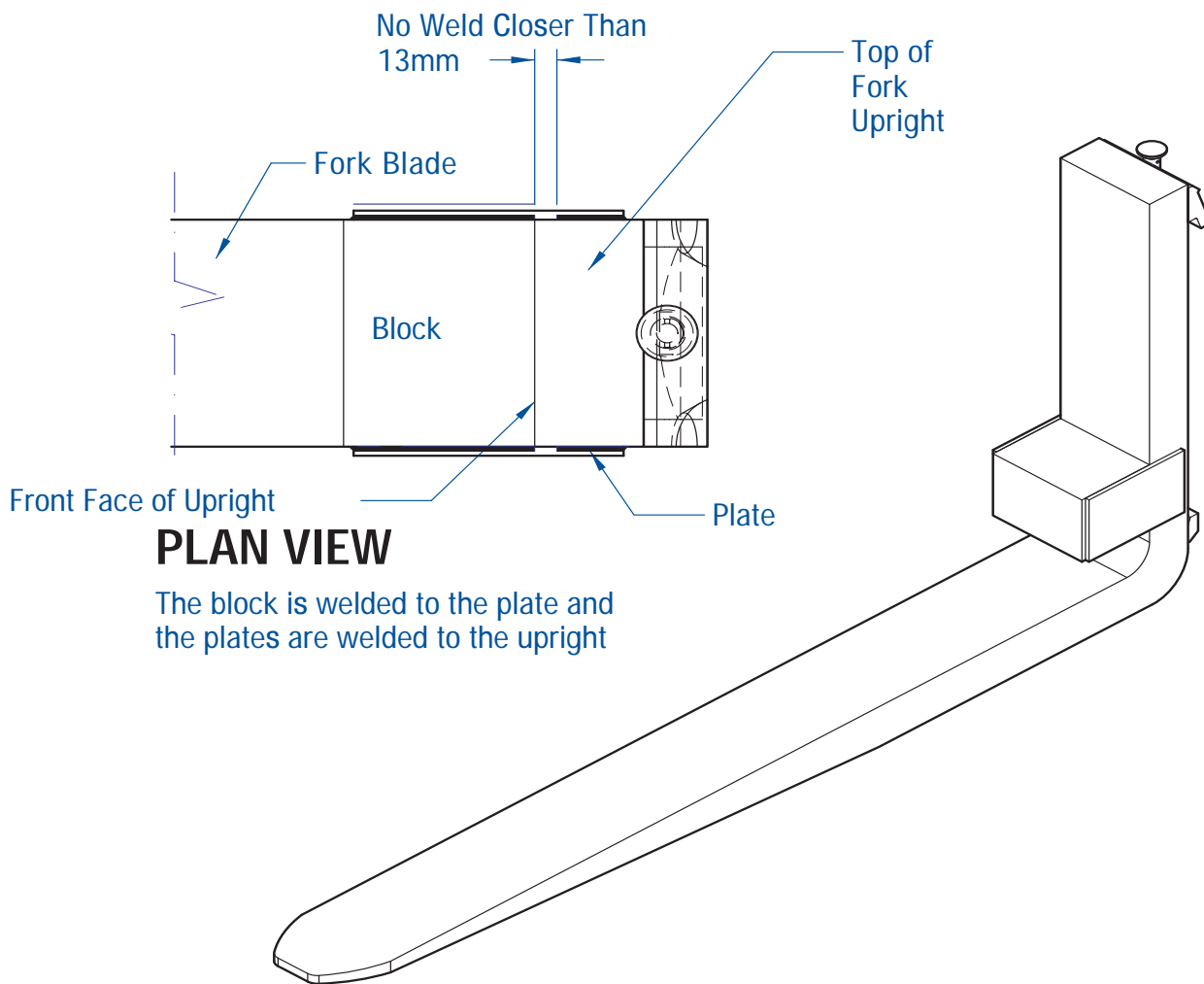
SUBJECT : WELDING FORK SURFACES

APPLICATION

Any welding on a fork can effect the fork properties negatively.

The general rule is that there should be no welding on the top surface of the blade or the front face of the upright (as they are in tension). Any deviation from this rule must always be discussed with Engineering so that the appropriate safety margins can be applied.

There are a number of methods where applications can be adjusted to avoid welding in critical areas. For example this block is welded at the side rather than the front.

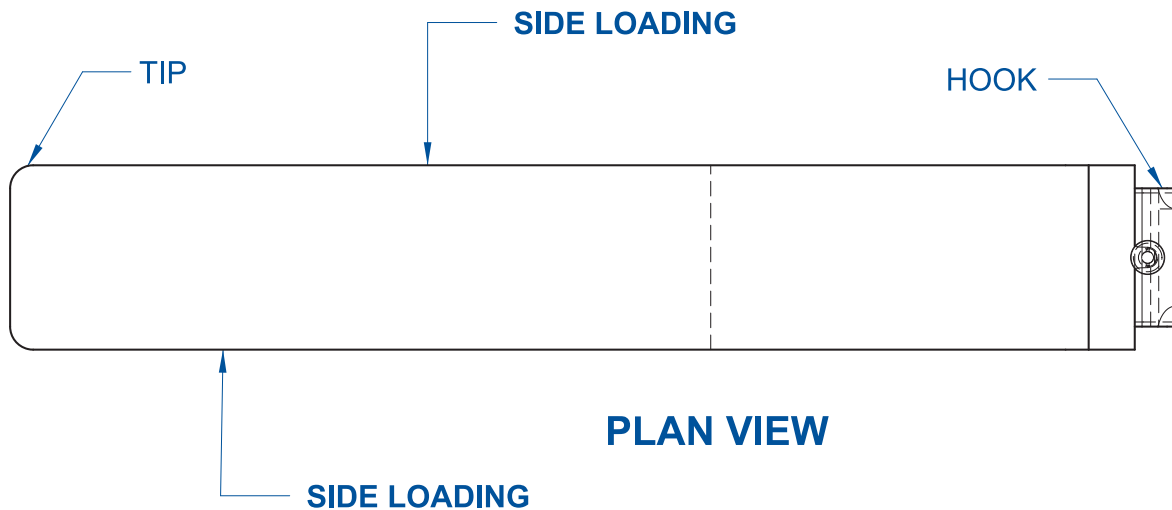


DO NOT WELD WITHIN A MINIMUM OF 13mm (1/2") FROM THE SURFACES DESCRIBED ABOVE. ALSO SEE: "MODIFICATIONS TO FORKS"

SUBJECT : SIDE LOADING

APPLICATION

Forks must not be used for side loading unless specially designed for a particular application. In order to produce such a design, details of the load and load systems are required.



Specially designed hooks or tubes would probably be required if a special design was requested.



SUBJECT : LOST LOAD CENTER

APPLICATION (Forks only, not attachments)

"Lost load center" is one of the terms assigned to describe the difference in distance between the fork thickness that was originally designed for the lift truck and the new thicker fork required.

FOR EXAMPLE:

Original fork = 40mm thick, ...new fork = 50mm thick, ...therefore the "Lost load center" is:

$$40 - 50 = -10$$

The minus sign indicates "lost" and the 10 shows the difference.

This information is given back to the OEM who will recalculate the load and load center of the lift truck, which will appear on the "capacity plate" of the truck.

FEATURES

Listed below are the average fork thicknesses for standard ISO forks for classes 2,3 & 4.
(Check specifications for the truck in question)

CLASS	ORIGINAL FORK	- NEW FORK	= LOST LOAD DISTANCE
2	40mm	-	
3	50mm	-	
4	65mm	-	

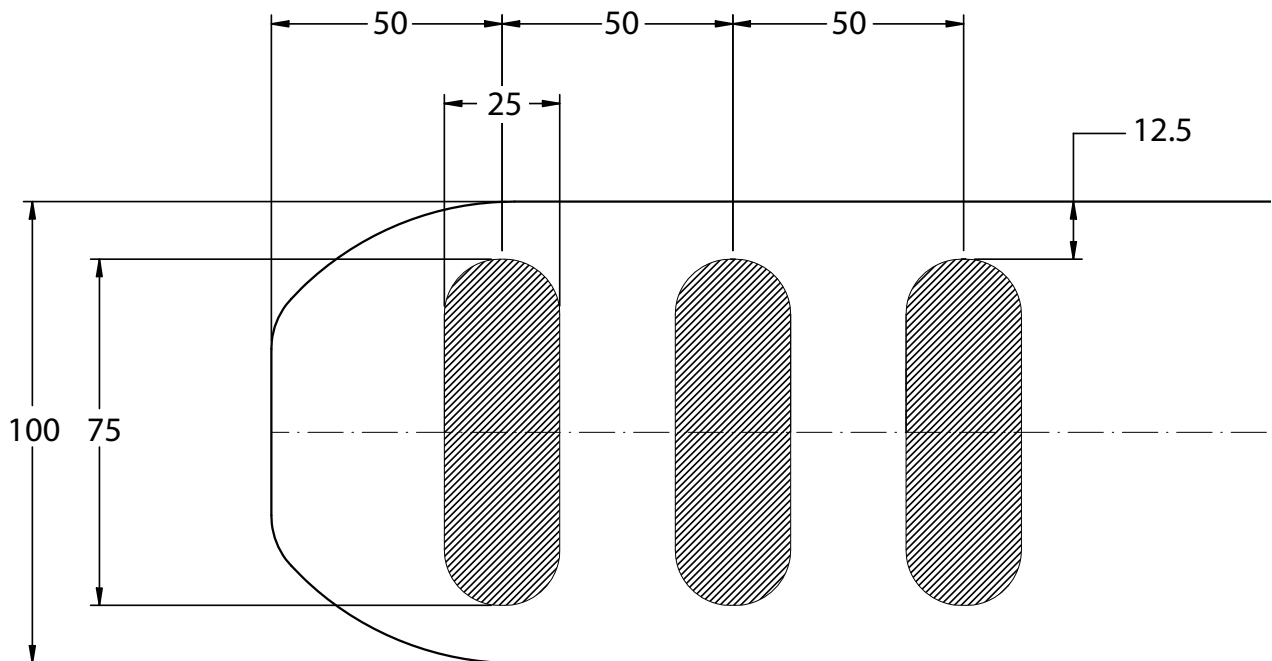
Consult Engineering for all other enquiries.

There are also other changes to a fork which can cause a "movement forward" resulting in a lost load. These changes must also be taken into consideration.

SUBJECT : FORK TIP LOCATOR BARS

APPLICATION

Available at the tips of forks, these recessed yellow bars are designed to increase visibility of the forks from above or below. These marks help the operator determine the exact position of their fork tips while entering or exiting the pallet. Increased fork tip visibility can result in faster, safer, damage free handling.



Example Diagram

FEATURES

1. 3 recessed bars, located on the bottom or the top of the fork blade.
2. The length of the recessed bars are 25mm less than the width of the fork blade.
3. Supplied with safety yellow paint.
4. 1 mm deep recessed bars.



CONDITIONS OF SALE

1. **Prices**—Prices quoted are F.O.B. point of shipment, unless otherwise specified, are based upon our understanding of your requirements and specifications, and are subject to change or withdrawal without notice.
2. **Terms of Payment**—Unless otherwise specified, payment for all sales shall be due net 30 days, subject to credit approval at time of shipment. In the event Seller's Credit Department shall have any doubt as to Buyer's financial responsibility, Seller reserves the right to make shipments hereunder only upon receipt of cash payment prior to shipment or of satisfactory security for payment of the purchase price.
3. **Delivery**—Delivery dates set forth herein are approximate. Seller shall not be liable for any delay in or failure of delivery due to causes beyond its reasonable control, including without limitation, acts of God or public authority, including, without limiting the generality of the foregoing, acts or omissions of any custom or border officers, acts of the Buyer, fires, labor disturbances, floods, extreme weather conditions, accidents, war, insurrection or riot, civil or military authority, freight embargoes, failures of and delays by carriers, shortages of material or manufacturing facilities, or delays of a supplier or subcontractor due to causes beyond its control.
4. **Cancellations**—Cancellation of orders for standard product may require a restocking charge. Cancellation of special custom engineered products is subject to all costs incurred by Cascade including labor, materials, engineering and administrative costs.
5. **Taxes**—Sales taxes payable by Buyer, which are presently or may hereafter be imposed by any taxing authority, are not included in the quoted sale price; any direct or excise tax which may hereafter be imposed by any taxing authority upon the manufacture, sale or delivery of articles covered hereby, or any increase in rate of any such tax now in force, shall be added to the purchase price of such articles and shall be paid by the Buyer. If not collected at time of payment of sale price, Buyer will hold Seller harmless. On sales to United States customers only, quoted sale price includes both duty and brokerage fees, unless otherwise specified.
6. **Permissible Variations**—(a) Material shall be within the limits, conforming with standard practices in the industry by the Seller. (b) Seller reserves the privilege of shipping overages or underages in accordance with Seller's standard practices.
7. **Default in Payment**—In case Buyer shall fail to make payments on any contract resulting herefrom or any other contract between Buyer and Seller in accordance with Seller's terms, the Seller may defer further shipments until such payments are made or may, at its option, cancel unshipped balance.
8. **Warranties**—All goods sold hereunder are warranted to be free from defects in material and workmanship, and/or to conform to applicable specifications, drawings, blueprints and/or samples set forth or described herein, if any, for a period of one year after date of shipment from Seller's plant. This warranty does not extend to goods or part thereof which have been subjected to misuse (examples; excessive side and/or tip loading, single fork loading) and/or neglect, damaged by accident or otherwise where the damage is not directly due to a defect in material and workmanship, rendered defective by reason of improper installation or by the performance of repairs or alterations outside Seller's plant, except when performed under Seller's specific authorization. This warranty shall not apply to any goods or parts thereof furnished by Buyer or acquired from others at Buyer's request and/or to Buyer's specifications. This warranty extends only to articles owned by original purchase.

When claiming a breach of the above warranty, Buyer must notify Seller promptly in writing whereupon Seller will either examine the goods at their site or issue shipping instructions for return to Seller (transportation costs prepaid by Buyer). Claims not made in writing within 30 days after discovery of the alleged defect or failure to conform shall be deemed waived. When any goods are proved to be other than as warranted. **Seller's sole obligation under this warranty shall be to repair or replace the goods, at its option, without charge to Buyer, and to bear transportation costs (cheapest way) to and from Seller's plant, reimbursing Buyer for any such transportation costs incurred by it. No allowance shall be made for any labour, charges of buyer for replacement of parts, adjustments or repairs, or any other work, unless such charges are authorized in advance by seller.**

The above warranty comprises Seller's sole and entire warranty obligation and liability to buyer in connection with goods sold hereunder. All other warranties, express, statutory or implied, including without limitation warranties of merchantability and fitness for a particular purpose, are expressly excluded. Warranty and all other obligations of seller, either under these conditions of sale or at law shall cease upon buyer making any repairs, modifications, alterations or adaptations to purposes other than purpose for which product sold without the prior written consent of seller.

9. **Consequential Damages**—In no event shall Seller be liable for consequential damages arising out of a delay in or failure of delivery, defects in material and workmanship and/or failure of goods to conform to applicable specifications, drawings, blueprints, or samples set forth or described herein, if any, or a breach by Seller or any other terms or obligation of Seller under the contract resulting herefrom.

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