

Articulating Ball  
& Ring Hitches



Hitch systems that define  
safety, simplicity & strength

### Articulating Ball Hitch

The patented Articulating Ball Hitch provides a tight pin-to-hitch connection while preserving articulation and flexibility. The maximum-contact design of the AB Hitch dramatically increases durability by eliminating impact-wear while maximizing implement control for accurate GPS guidance, tight turns and rough terrain.

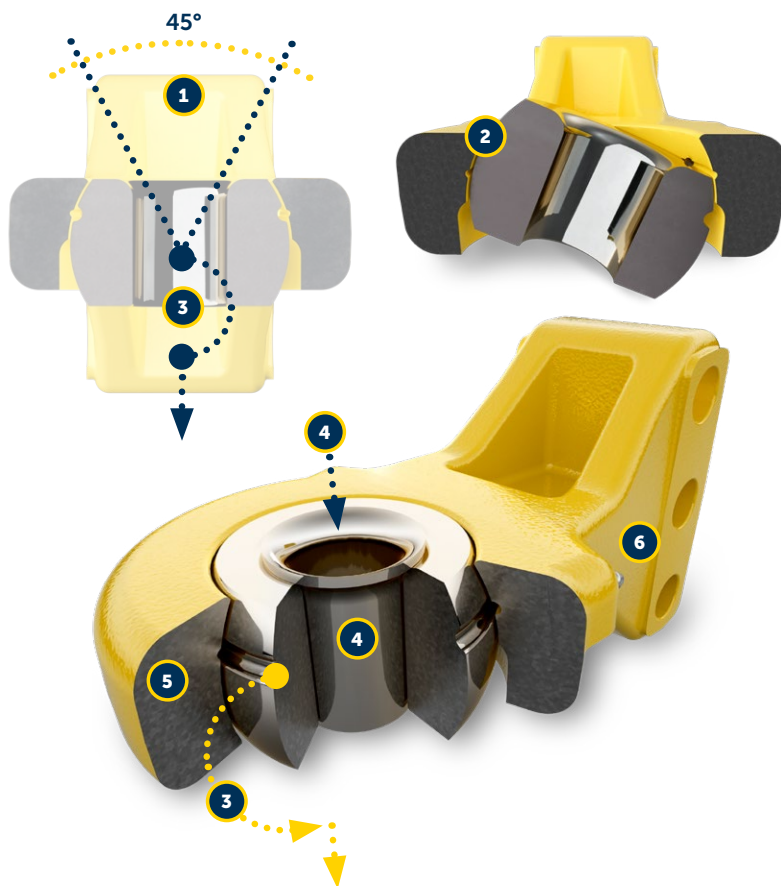
The interchangeable sizes of Ball Bushings, and step-down Sleeve Bushings provide patented no-tool pin-size versatility. Multiple size options and drop-in bushings quickly accommodate any drawpin size on the S3 PowerPin Drop Pin clevis that has become a standard feature on most North American tractors.

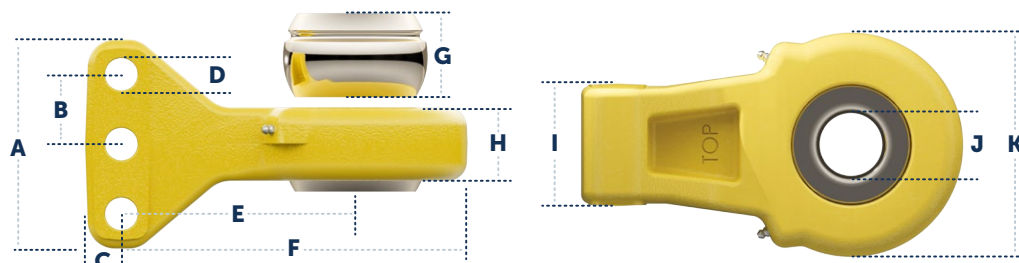
### Load Ratings

Cat.	Part Number	Material	Maximum Vert. Load	Maximum Draft Load
5	BH5SABA 2 3/4" & 2" pin	ADI Grade 3	30,000 lbf	139,000 lbf
4	BH4SABA 2" & 1 1/2" pin	ADI Grade 3	25,000 lbf	114,000 lbf
4	BH4SAB3HA 2" & 1 1/2" pin	ADI Grade 3	25,000 lbf	131,000 lbf
4	BH4SABROA 2" & 1 1/2" pin	ADI Grade 3	25,000 lbf	114,000 lbf
3	BH3SABA 1 1/2" & 1 1/4" pin	ADI Grade 3	22,000 lbf	77,000 lbf
3	BH3SAB3HA 1 1/2" & 1 1/4" pin	ADI Grade 3	22,000 lbf	95,000 lbf

### Features

- 1 The AB Hitch allows for 45° of articulation.
- 2 At any angle, maximum surface area contact is maintained for superior implement control and minimal wear.
- 3 No tools are required for quick bushing changes for different drawpin sizes—simply rotate the ball bushing 90° and remove from the bottom.
- 4 Step-down flanged bushing allows for even faster changes to smaller drawpins while maintaining a tight fit for reduced wear and maximum strength. Reduces the need for multiple Ball Bushings.
- 5 All hitches meet or exceed ISO 21244-2008 standards.
- 6 Grease zerks are positioned at the back of the hitch for maximum impact protection.





### Dimensions

Dimensions		Category 5		Category 4				Category 3						
		BH5SABA	BH5SABSA	BH4SABA	BH4SABROA	BH4SABSA	BH4SAB3HA	BH4SAB3HSA	BH3SABLA	BH3SABA	BH3SABSA	BH3SAB3HLA	BH3SAB3HA	BH3SAB3HSA
Receiver height	A	6.75"	6.75"	4.5"	4.91"	4.5"	6.75"	6.75"	4.5"	4.5"	4.5"	4.5"	4.5"	4.5"
Bolt hole centers distance	B	2.25"	2.25"	2.25"	—	2.25"	2.25"	2.25"	2.25"	2.25"	2.25"	1.5"	1.5"	1.5"
Bolt hole center to back	C	1.18"	1.18"	1.18"	2.25"	1.18"	1.18"	1.18"	1.18"	1.18"	1.18"	.87"	.87"	.87"
Bolt hole size	D	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	.77"	.77"	.77"
Draw pin to hole mounting	E	7.57"	7.57"	6.92"	5.87"	6.92"	7"	7"	6.91"	6.91"	6.91"	6.32"	6.32"	6.32"
Nose to hole mounting	F	11.20"	11.20"	10.07"	8.75"	10.07"	9.82"	9.82"	9.72"	9.72"	9.72"	9.12"	9.12"	9.12"
Ball thickness	G	2.88"	2.75"	2.56"	2.56"	2.56"	2.56"	2.56"	2.56"	2.56"	2.56"	2.56"	2.56"	2.56"
Tongue thickness	H	2.38"	2.38"	2"	2.06"	2"	2.06"	2.06"	1.94"	1.94"	1.94"	1.88"	1.88"	1.88"
Width for receiver	I	3.96"	3.96"	3.96"	2.88"	3.96"	3.96"	3.96"	3.96"	3.96"	3.96"	3.96"	3.96"	3.96"
Draw pin size	J	2.75"	2"	2"	2"	1.5"	2"	1.5"	2"	1.5"	1.25"	2"	1.5"	1.25"
Ball housing diameter	K	7.25"	7.25"	6.3"	5.75"	6.3"	5.62"	5.62"	5.62"	5.62"	5.62"	5.62"	5.62"	5.62"
Number of bolts in receiver		3	3	2	1	2	3	3	2	2	2	3	3	3
Weight (lbs)		41.8	42.8	27	28.7	27	31	31	25.5	25.5	25.5	23	22.8	23

### Articulating Ball Bushings

Up to 45° of total articulation while maximizing contact area. Reduces hitch wear, easily removable with no tools.



		Inner Diam.
Category 5	HM33B	2 3/4"
Category 5	HM42B	2"
Category 3&4	HM31B	2"
Category 3&4	HM32B	1 1/2"
Category 3	HM36B	1 1/4"

### Flanged Sleeve Bushings

Fast step-down to smaller pin sizes when using AB Bushings. Flanged to ensure easy pin drop-ins.



		Inner Diam.	Outer Diam.
Category 5	HM34F	2"	2 3/4"
Category 3&4	HM35F	1 1/2"	2"
Category 3&4	HM37F	1 1/4"	2"
Category 3&4	HM38F	1 1/4"	1 1/2"

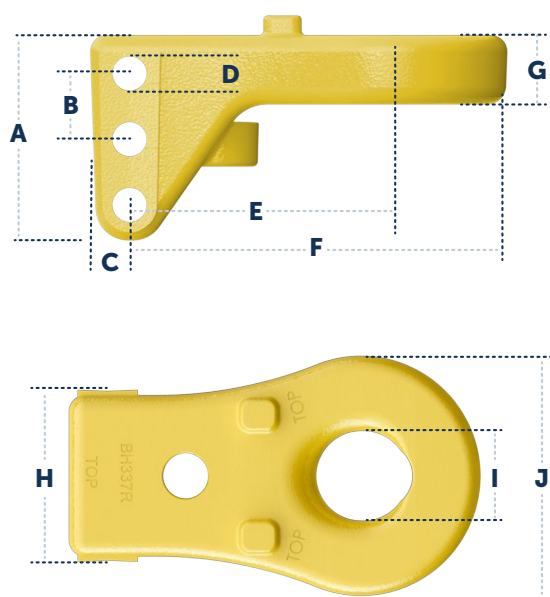
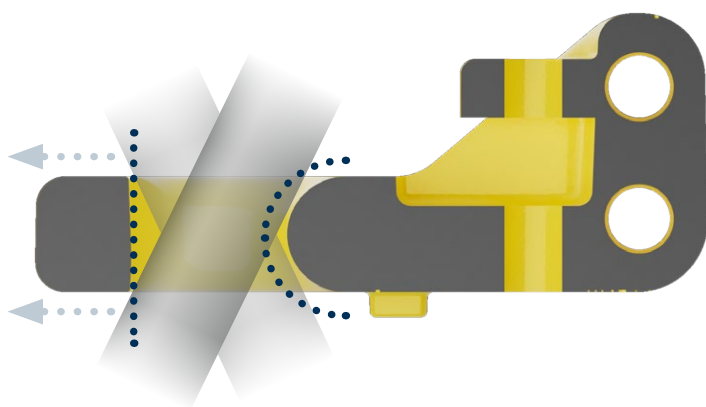


### Ring Hitch

Designed to allow for pin articulation while keeping maximum surface area at the forward primary contact point for minimal wear.

### Load Ratings

Cat.	Part Number	Material	Maximum Vert. Load	Maximum Draft Load
5	BH53ADI	ADI Grade 3	12,000 lbf	135,000 lbf
4	BH421ADI	ADI Grade 4	10,000 lbf	120,000 lbf
3	BH337R	D80	7,000 lbf	97,000 lbf
3	BH337ADI	ADI Grade 4	9,500 lbf	108,000 lbf
3	BH321R	D80	7,000 lbf	97,000 lbf
3	BH321ADI	ADI Grade 4	9,500 lbf	108,000 lbf
2	BH236-2R	D80	3,700 lbf	55,000 lbf



### Dimensions

Dimensions		Cat. 5	Cat. 4	Category 3			Cat. 2	
		BH53ADI	BH421ADI	BH321R	BH321ADI	BH337R	BH337ADI	BH236-2R
Receiver height	A	6.63"	4.75"	4.68"	4.68"	4.68"	4.68"	5.38"
Bolt hole centers distance	B	2.25"	2.25"	2.25"	2.25"	1.5"	1.5"	2.00"
Bolt hole center to back	C	1.18"	1.18"	1"	1"	1"	1"	.87"
Bolt hole size	D	1"	1"	1"	1"	.77"	.77"	.625"
Draw pin to hole mounting	E	7.8"	7.19"	5.78"	5.78"	5.87"	5.87"	5.15"
Nose to hole mounting	F	11.12"	10.32"	8.56"	8.56"	8.56"	8.56"	7.25"
Tongue thickness	G	2.13"	1.97"	1.58"	1.58"	1.58"	1.58"	1.42"
Width for receiver	H	3.96"	3.96"	3.96"	3.96"	3.96"	3.96"	2.72"
Draw pin size	I	2.75"	2"	2"	2"	2"	2"	1.50"
Ring outside diameter	J	6.75"	6.25"	5.56"	5.56"	5.53"	5.53"	4.25"
Number of bolts in receiver		3	2	2	2	3	3	3
Weight (lbs)		35.2	30	18	18	18	18	11.75

## Specifications

135,000	Max draft load (lbf)
12,000	Max Vertical Load (lbf)
2.75"	Max drawpin diameter
ADI Grade 3	Construction material
1"	Bolt hole size
2.25"	Bolt holes center distance
4"	Receiver width
.875"	Minimum bracket thickness Bracket not included

- ADI Grade 3 iron to ASTM 897-90 Standard.
- ISO 21244-2008 compliant.

## Optional Pin Step-down Kit

BH53KIT is a optional kit that takes up the slack when using a smaller 2" drawpin, increasing control and eliminating impact-wear. The patented Step-down plate is adjustable with no tools to allow for side-mounting when not in use.

## Mounting

Use (3) 1" diameter Grade 8 fasteners. (Not included)

Ensure there is no side-play between hitch and bracket by shimming with appropriate washers if necessary. Failure to do so may result the premature failure of mounting hardware.



Inverted for use  
with optional Pin  
Step-down Kit.



Pin Step-down Kit



## Specifications

139,000	Max draft load (lbf)
30,000	Max Vertical Load (lbf)
2.75"	Max drawpin diameter (BH5SABA) With included HM33B Ball Bushing
2"	Max drawpin diameter (BH5SABSA) With included HM42B Ball Bushing
ADI Grade 3	Construction material
1"	Bolt hole size
2.25"	Bolt holes center distance
4"	Receiver width
.875"	Minimum bracket thickness Bracket not included

- ADI Grade 3 iron to ASTM 897-90 Standard.
- ISO 21244-2008 compliant.

## Articulating Ball Bushing

The AB Hitch design allows for 45° of total articulation which maximizes contact at any angle. Dramatically reduces drawpin and implement ring hitch wear. The AB Hitch eliminates excessive slack in the connection to accommodate for tight turns and rough terrain and provides much smoother operation and increased control for GPS navigation.

Multiple optional ball sizes available, and flanged sleeve bushings allow for even faster small step-down to accommodate smaller pin sizes.

## Mounting

Use (3) 1" diameter Grade 8 fasteners. (Not included)

Ensure there is no side-play between hitch and bracket by shimming with appropriate washers if necessary. Failure to do so may result the premature failure of mounting hardware.



## Specifications

120,000	Max draft load (lbf)
10,000	Max Vertical Load (lbf)
2"	Max drawpin diameter
ADI Grade 4	Construction material
1"	Bolt hole size
2.25"	Bolt holes center distance
4"	Receiver width
.75"	Minimum bracket thickness
	Bracket not included

- ADI Grade 4 iron to ASTM 897-90 Standard.
- ISO 21244-2008 compliant.

## Clevis Option

The patented weld-on clevis can be purchased to accommodate a 1.25" drawpin. Clevis top and bottom plate are slotted to allow for articulation.

Note that the Clevis has a maximum draft load of 20,500 lbf when in use with a 1.25" drawpin. The Clevis can be swung aside when not in use.

## Mounting

Use (2) 1" diameter Grade 8 fasteners. (Not included)

Ensure there is no side-play between hitch and bracket by shimming with appropriate washers if necessary. Failure to do so may result the premature failure of mounting hardware.



With optional weld-on clevis





# Articulating Ball Hitch 3-bolt

BH4SAB3HA, BH4SAB3HSA

## Specifications

<b>131,000</b>	Max draft load (lbf)
<b>25,000</b>	Max Vertical Load (lbf)
<b>2"</b>	Max drawpin diameter (BH4SAB3HA) With included HM31B Ball Bushing
<b>1.5"</b>	Max drawpin diameter (BH4SAB3HSA) With included HM32B Ball Bushing
<b>ADI Grade 3</b>	Construction material
<b>1"</b>	Bolt hole size
<b>2.25</b>	Bolt holes center distance
<b>4"</b>	Receiver width
<b>.75"</b>	Minimum bracket thickness Bracket not included

- ADI Grade 3 iron to ASTM 897-90 Standard.
- ISO 21244-2008 compliant.

## Articulating Ball Bushing

The AB Hitch design allows for 45° of total articulation which maximizes contact at any angle. Dramatically reduces drawpin and implement ring hitch wear. The AB Hitch eliminates excessive slack in the connection to accommodate for tight turns and rough terrain and provides much smoother operation and increased control for GPS navigation.

Multiple optional ball sizes available, and flanged sleeve bushings allow for even faster small step-down to accommodate smaller pin sizes.

## Mounting

Use (3) 1" diameter Grade 8 fasteners. (Not included)

Ensure there is no side-play between hitch and bracket by shimming with appropriate washers if necessary. Failure to do so may result the premature failure of mounting hardware.





# Articulating Ball Hitch 2-bolt

BH4SABA, BH4SABSA

## Specifications

<b>114,000</b>	Max draft load (lbf)
<b>25,000</b>	Max Vertical Load (lbf)
<b>2"</b>	Max drawpin diameter (BH4SABA) With included HM31B Ball Bushing
<b>1.5"</b>	Max drawpin diameter (BH4SABSA) With included HM32B Ball Bushing
<b>ADI Grade 3</b>	Construction material
<b>1"</b>	Bolt hole size
<b>2.25"</b>	Bolt holes center distance
<b>4"</b>	Receiver width
<b>.75"</b>	Minimum bracket thickness Bracket not included

- ADI Grade 3 iron to ASTM 897-90 Standard.
- ISO 21244-2008 compliant.

## Articulating Ball Bushing

The AB Hitch design allows for 45° of total articulation which maximizes contact at any angle. Dramatically reduces drawpin and implement ring hitch wear. The AB Hitch eliminates excessive slack in the connection to accommodate for tight turns and rough terrain and provides much smoother operation and increased control for GPS navigation.

Multiple optional ball sizes available, and flanged sleeve bushings allow for even faster small step-down to accommodate smaller pin sizes.

## Mounting

Use (2) 1" diameter Grade 8 fasteners. (Not included)

Ensure there is no side-play between hitch and bracket by shimming with appropriate washers if necessary. Failure to do so may result the premature failure of mounting hardware.



# Articulating Ball Hitch

**BH4SABROA**

For 2 7/8" diameter spindle

## Specifications

<b>114,000</b>	Max draft load (lbf)
<b>25,000</b>	Max Vertical Load (lbf)
<b>2"</b>	Max drawpin diameter
<b>ADI Grade 3</b>	Construction material
<b>1"</b>	Bolt hole size
<b>2.895"</b>	Receiver diameter

- ADI Grade 3 iron to ASTM 897-90 Standard.
- ISO 21244-2008 compliant.

## Articulating Ball Bushing

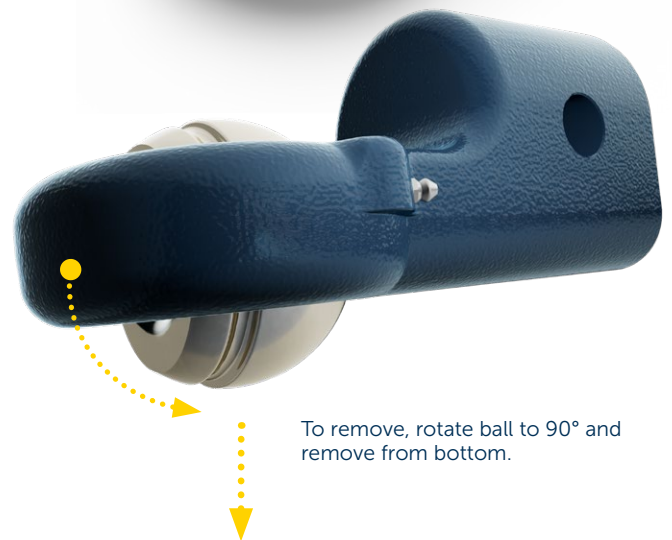
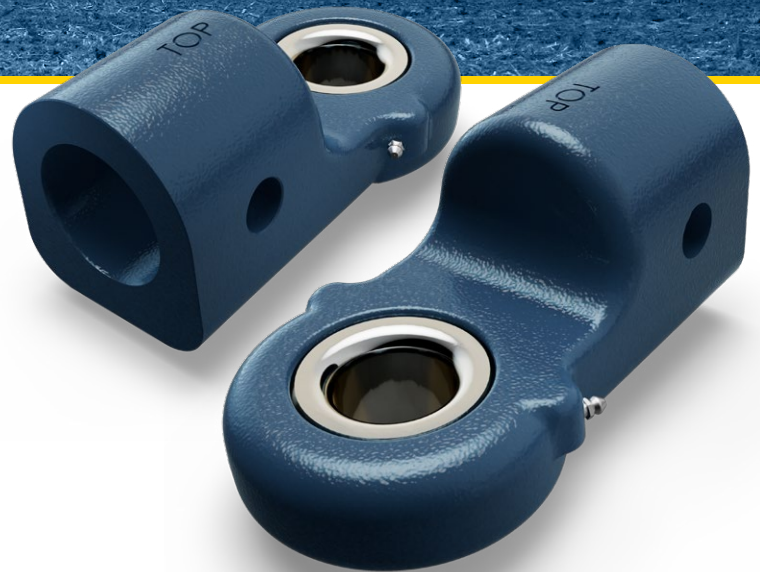
The AB Hitch design allows for 45° of total articulation which maximizes contact at any angle. Dramatically reduces drawpin and implement ring hitch wear. The AB Hitch eliminates excessive slack in the connection to accommodate for tight turns and rough terrain and provides much smoother operation and increased control for GPS navigation.

Multiple optional ball sizes available, and flanged sleeve bushings allow for even faster small step-down to accommodate smaller pin sizes.

## Mounting

Use (1) 1" diameter Grade 8 fasteners. (Not included)

Ensure there is no side-play between hitch and bracket by shimming with appropriate washers if necessary. Failure to do so may result the premature failure of mounting hardware.





## Specifications

BH321ADI	
<b>ADI Grade 4</b>	Construction material
<b>108,000</b>	Max draft load (lbf)
<b>9,500</b>	Max Vertical Load (lbf)
BH321R	
<b>D80-55-06</b>	Construction material
<b>97,000</b>	Max draft load (lbf)
<b>7,000</b>	Max Vertical Load (lbf)
<b>2"</b>	Max drawpin diameter
<b>1"</b>	Bolt hole size
<b>2.25"</b>	Bolt holes center distance
<b>4"</b>	Receiver width
<b>.625"</b>	Minimum bracket thickness
	Bracket not included

- ISO 21244-2008 compliant.
- Ring-Hitch allows for articulation while having a flat surface on the inner ring to reduced wear
- Turn the base Hitch over to allow for more height adjustment.

## Mounting

Use (2) 1" diameter Grade 8 fasteners. (Not included)

Ensure there is no side-play between hitch and bracket by shimming with appropriate washers if necessary. Failure to do so may result the premature failure of mounting hardware.

## Clevis Option

The clevis (C3CKIT with bolt assembly and top / bottom plate) can be purchased to accommodate a 1.25" drawpin. Clevis top and bottom plate are slotted to allow for articulation.

Note that the Clevis has a maximum draft load of 20,500 lbf when in use with a 1.25" drawpin. The Clevis can be swung aside when not in use.



With optional clevis.



With optional clevis.

## Specifications

BH337ADI	
<b>ADI Grade 4</b>	Construction material
<b>108,000</b>	Max draft load (lbf)
<b>9,500</b>	Max Vertical Load (lbf)
BH337R	
<b>D80-55-06</b>	Construction material
<b>97,000</b>	Max draft load (lbf)
<b>7,000</b>	Max Vertical Load (lbf)
<b>2"</b>	Max drawpin diameter
<b>.77"</b>	Bolt hole size
<b>1.5"</b>	Bolt holes center distance
<b>4"</b>	Receiver width
<b>.625"</b>	Minimum bracket thickness Bracket not included

- ISO 21244-2008 compliant.
- Ring-Hitch allows for articulation while having a flat surface on the inner ring to reduced wear
- Turn the base Hitch over to allow for more height adjustment.

## Mounting

Use (3) .75" diameter Grade 8 fasteners. (Not included)

Ensure there is no side-play between hitch and bracket by shimming with appropriate washers if necessary. Failure to do so may result the premature failure of mounting hardware.

## Clevis Option

The clevis (C3CKIT with bolt assembly and top / bottom plate) can be purchased to accommodate a 1.25" drawpin. Clevis top and bottom plate are slotted to allow for articulation.

Note that the Clevis has a maximum draft load of 20,500 lbf when in use with a 1.25" drawpin. The Clevis can be swung aside when not in use.



With optional clevis.





# Articulating Ball Hitch 2-bolt

BH3SABLA, BH3SABA, BH3ABSBA

## Specifications

<b>77,000</b>	Max draft load (lbf)
<b>22,000</b>	Max Vertical Load (lbf)
<b>2"</b>	Max drawpin diameter (BH3SABLA) With included HM31B Ball Bushing
<b>1.5"</b>	Max drawpin diameter (BH3SABA) With included HM32B Ball Bushing
<b>1.25"</b>	Max drawpin diameter (BH3ABSBA) With included HM36B Ball Bushing
<b>ADI Grade 3</b>	Construction material
<b>1"</b>	Bolt hole size
<b>2.25"</b>	Bolt holes center distance
<b>4"</b>	Receiver width
<b>.75"</b>	Minimum bracket thickness Bracket not included

- ADI Grade 3 iron to ASTM 897-90 Standard.
- ISO 21244-2008 compliant.

## Mounting

Use (2) 1" diameter Grade 8 fasteners. (Not included)

Ensure there is no side-play between hitch and bracket by shimming with appropriate washers if necessary. Failure to do so may result the premature failure of mounting hardware.

## Articulating Ball Bushing

The AB Hitch design allows for 45° of total articulation which maximizes contact at any angle. Dramatically reduces drawpin and implement ring hitch wear. The AB Hitch eliminates excessive slack in the connection to accommodate for tight turns and rough terrain and provides much smoother operation and increased control for GPS navigation.

Multiple optional ball sizes available, and flanged sleeve bushings allow for even faster small step-down to accommodate smaller pin sizes.



# Articulating Ball Hitch 3-bolt

BH3SAB3HLA , BH3SAB3HA, BH3SAB3HSA

## Specifications

<b>95,000</b>	Max draft load (lbf)
<b>22,000</b>	Max Vertical Load (lbf)
<b>2"</b>	Max drawpin diameter (BH3SAB3HLA) With included HM31B Ball Bushing
<b>1.5"</b>	Max drawpin diameter (BH3SAB3HA) With included HM32B Ball Bushing
<b>1.25"</b>	Max drawpin diameter (BH3SAB3HSA) With included HM36B Ball Bushing
<b>ADI Grade 3</b>	Construction material
<b>.77"</b>	Bolt hole size
<b>1.5"</b>	Bolt holes center distance
<b>4"</b>	Receiver width
<b>.625"</b>	Minimum bracket thickness Bracket not included

- ADI Grade 3 iron to ASTM 897-90 Standard.
- ISO 21244-2008 compliant.

## Mounting

Use (3) .75" diameter Grade 8 fasteners. (Not included)

Ensure there is no side-play between hitch and bracket by shimming with appropriate washers if necessary. Failure to do so may result the premature failure of mounting hardware.

## Articulating Ball Bushing

The AB Hitch design allows for 45° of total articulation which maximizes contact at any angle. Dramatically reduces drawpin and implement ring hitch wear. The AB Hitch eliminates excessive slack in the connection to accommodate for tight turns and rough terrain and provides much smoother operation and increased control for GPS navigation.

Multiple optional ball sizes available, and flanged sleeve bushings allow for even faster small step-down to accommodate smaller pin sizes.



To remove, rotate ball to 90° and remove from bottom.





## Specifications

<b>55,000</b>	Max draft load (lbf)
<b>3,700</b>	Max Vertical Load (lbf)
<b>1.5"</b>	Max drawpin diameter
<b>D80-55-06</b>	Construction material
<b>.625"</b>	Bolt hole size
<b>2"</b>	Bolt holes center distance
<b>2.75"</b>	Receiver width
<b>.625"</b>	Minimum bracket thickness Bracket not included

- Ductile iron D80-55-06 to ASTM A536 Standard.
- ISO 21244-2008 compliant.

## Mounting

Use (3) 5/8" diameter Grade 8 fasteners. (Not included)

Ensure there is no side-play between hitch and bracket by shimming with appropriate washers if necessary. Failure to do so may result the premature failure of mounting hardware.

## Clevis Option

The weld-on clevis can be purchased (C2CKIT with bolt assembly and top / bottom plate) to accommodate a 1.25" drawpin. Clevis top and bottom plate are slotted to allow for articulation.

Note that the Clevis has a maximum draft load of 17,500 lbf when in use with a 1.25" drawpin. The Clevis can be swung aside when not in use.



With optional clevis.





Hitch systems that define safety, simplicity and strength.



#### S3 PowerPin

598 Second Street East, Fort  
Qu'Appelle SK S0G 1S0  
Canada

Toll Free: 877-348-0066  
Phone: 306-332-5034  
Fax: 519-348-5035



#### S3 AWS Airbar

3890 Wellington St.  
Mitchell ON N0K 1N0  
Canada

Toll Free: 877-348-0066  
Phone: 519-348-0066  
Fax: 519-348-0061



#### S3 Manufacturing

**South Building**  
2180 Oman Drive  
P.O. Box 1780  
Swift Current SK S9H 4J8  
Canada

Toll Free: 844-441-3030  
Phone: 306-773-0646  
Fax: 306-773-9318



#### S3 Wireform

**North Building**  
2180 Oman Drive  
P.O. Box 1207  
Swift Current SK S9H 3X4  
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Toll Free: 844-441-1010  
Phone: 306-773-0644  
Fax: 306-773-1188



#### S3 Delta Harrows

800 South Fremont St.  
Shenandoah IA 51601  
USA

Toll Free: 877-874-3020  
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#### S3 Air Systems

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