

3rd AG-IMPLEMENT HITCH CATALOGUE



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PLEASE DISCARD ALL PREVIOUS CATALOGUES



CANADIAN TOOL & DIE LTD.

1331 Chevrier Blvd, Winnipeg, MB Canada R3T 1Y4
Ph. (204) 453-6833 Fax (204) 453-3803
<http://www.canadiantool.com>

ISO 9001: 2000

This catalogue of Hitching Components is the first of its kind in North America. This project has rural roots and is the culmination of efforts by Power Pin Inc., and Canadian Tool & Die Ltd.

The mission statement from day one has been to provide farmers with a one-trip Tractor-Implement Drawbar Coupling System that is safer and more efficient than the old practice.

We believe that by supplying Drawbar Hitching Components to both the Tractor and the Implement Manufacturers, that there will be compatibility in the connection in much the same manner as the Power Take-Off and the Hydraulic Interface was made compatible.

On the tractor drawbar we supply a low profile hammerstrap that provides dramatically more clearance for the PTO than previous hammerstraps, plus our unit has the feature of a "DROP-PIN" that drops and locks the drawpin when proper alignment of the implement has been achieved. This is a major benefit for the customer as it makes hook-up safer and faster (Drop-Pin Hammerstrap not shown in this catalogue).

On the Implement side, we have categorized our hitches much the same as three-point hitches and used the ISO Standards as the ultimate goal. We wanted to standarize to where the world market was going, plus adapt to the ring-hitch that has been used by the construction industry for years. The ability to pull implements behind trucks with a pintle hook was also a goal we thought would lead to increased public safety.

Our implement hitches come with a number of options which make them adaptable to North America as well as other world markets.

We believe that with our hitches manufacturers can offer increased benefits while reducing costs for design, tooling, and inventory.

Brian Olson

*President
Power pin, Inc.*



A BRIEF HISTORY ON THE PRODUCT...

In 1993, Canadian Tool & Die Ltd. introduced an innovative line of ductile-iron implement-hitches, intended to provide farmers with a one trip tractor-implement drawbar coupling that was safer and more efficient than existing systems, and which would enable manufacturers to reduce design and tooling costs, as well as parts inventories.

In the ten years succeeding their initial launch, these hitches have been an overwhelming success, gaining the acclaim and loyalty of hundreds of manufacturers and parts distributors, from across both North America and Europe. During that time the original line-up has grown and transformed - striving to keep pace with the ever-evolving agricultural implement market - to encompass a greater range of applications. To the continuation of that effort, Canadian Tool & Die Ltd. is now proud to introduce the newest additions to our hitch line:

Austempered Hitches.

WHAT OUR CUSTOMERS ARE SAYING...

On behalf of Bergen Ind., we would like to thank you for providing our customers with the "Perfect Hitch". Having the "Perfect Hitch" on our "Self-Levelling" harrow bars has been a definite selling feature. To date we have not had one defect in any way...match that with pleased consumers and that's tough to beat. Numerous customers have also requested the "Perfect Hitch" to upgrade their older harrows. The only way to describe the customers' acceptance of the "Perfect Hitch" is...enthusiastic!!

Al Bergen
Bergen Industries

Summers Mfg. switched exclusively to the "Perfect Hitch" (PPI-331VS) on towed implements in 1997. The 40 degree articulation, provided by the Perfect Hitch, is exactly what we need for large diameter hitch pins used on our high draft tillage implements. The back stop and clevis options are popular on our lighter draft implements including sprayers and rockpickers. Our customers are very satisfied with the quality and service life of the "Perfect Hitch". Satisfied customers combined with competitive cost confirms that we made the right choice changing to "Perfect Hitch".

Pete Almen
Summers Manufacturing Corporation

Kello-Bilt tillage equipment works in the toughest tillage applications in Western North America. One of the key components to our equipment is the hitch. The "Perfect Hitch" is an important part of our drawbar assembly. The durability of the "Perfect Hitch" is second to none.

Rob Kellough
Kello-Bilt Incorporated

Westward Products Ltd. switched over to using the "Perfect Hitch" several years ago on all our manufactured "Jiffy" equipment. It is also used on the custom built equipment we manufacture for other companies. We do not hesitate on recommending the use of this hitch for its' intended purposes.

Garry Harris
Westward Products Incorporated

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BASE HITCH



- *Thirteen variations of Base Hitches available in Categories 1 to 4 - now also including Austempered variations.*
- *Vertical and Horizontal mount-ups*
- *Ring-Hitch Design allows for articulation*
- *Products made of Ductile Iron (80-55-06) in accordance with ASTM A536 Standards*

CLEVIS OPTION



- *Bolt the Clevis onto the bottom of the Base Hitch using a Grade 8 Bolt to ensure the vertical loads are taken by the Base Hitch.*

Warning: Wrong installation of the clevis may result in failure of the mounting bolt.



PERFECT HITCH OPTION

- *Turn the Base Hitch over and bolt the adjustable features of the Perfect Hitch into the top cavity.*
- *Always use the Neoprene Cushions. To adjust the drawpin hole size, add or remove one or both of the cushions.*
- *The adjustment of the Perfect Hitch to the drawpin provides a tight, flexible Tractor-Implement Drawbar connection.*

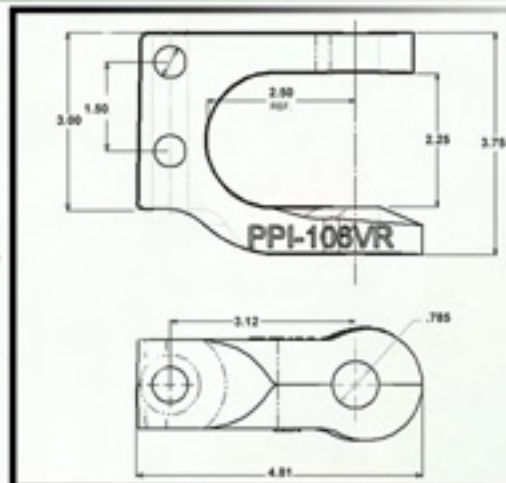


CATEGORY: 1

BASE HITCH
PPI-106M



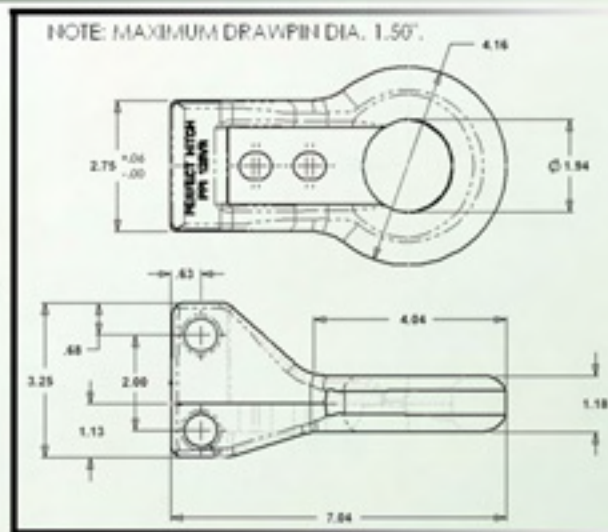
- Vertical Mounting Hitch
- Draft Load 7,800 lbs. pull on bottom tongue.



BASE HITCH
PPI-126VR



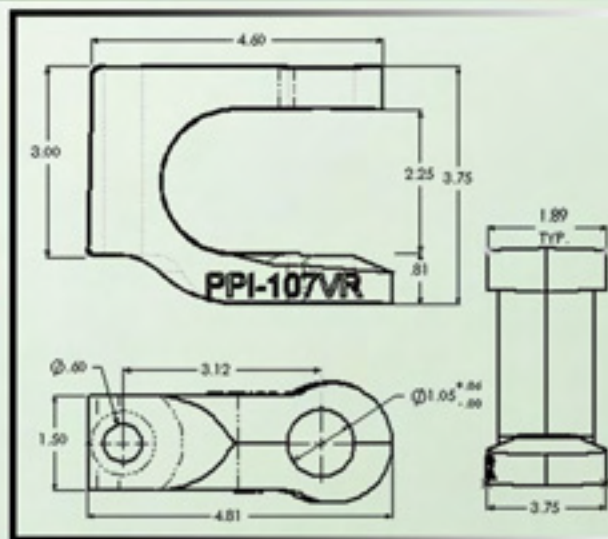
- Vertical Mounting Hitch
- Vertical Load 930 lbs.
- Draft Load 29,000 lbs.
- Maximum Drawpin Size 1.5" for 40° of Roll & Pitch Articulation



BASE HITCH
PPI-126VR
CLEVIS OPTIONS

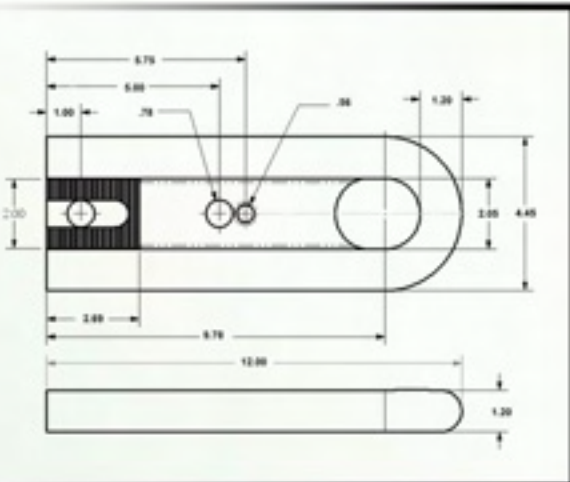


- PPI-106VR (Clevis - 3/4" drawpin size)
- 7,500 lbs. Pull on Bottom Tongue
- WB99 (Grade 5 Bolt)
- WB68 Nut



- PPI-107VR (1" drawpin size)
- 7,893 lbs. pull on bottom tongue

CATEGORY: 2



- *Horizontal Mounting Hitch*
- *Vertical Load 3,500 lbs.*
- *Draft Load 44,000 lbs.*
- *Maximum Drawpin Size 1.5" for 40° of Roll & Pitch Articulation*



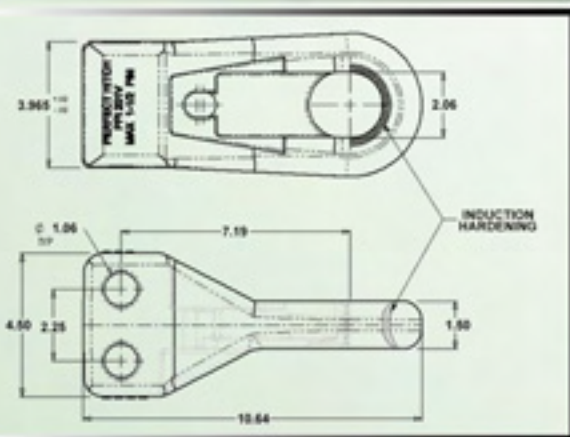
BASE HITCH
PPI-201HR



- *PPI-202H (Top Plate)*
- *PPI-203HR (V-Block)*
- *PPI-204HR (Angle Plate)*
- *PPI-205H (Neoprene Cushions)*
- *3/4" Bolt - NOT supplied*



PPI-201HR
OPTIONS



- *Vertical Mounting Hitch*
- *Vertical Load 4,000 lbs.*
- *Draft Load 56,000 lbs.*
- *Maximum Drawpin Size 1.5" for 40° of Roll & Pitch Articulation*
- *Also available with 3-sided heat treatment - PPI-201V3*



BASE HITCH
PPI-201VH



- *PPI-206VR (1" Drawpin Size)*
- *PPI-207V (1.375" Drawpin Size)*
- *PPI-208VR (1.25" x 1.75" Slotted Hole)*
- *15,000 lbs. Pull on Bottom Tongue*
- *WB90 (Grade 8 Bolt)*
- *WB91 Nut*

PPI-201VH
CLEVIS OPTIONS



- *PPI-202V (Top Plate)*
- *PPI-203VR (V-Block)*
- *PPI-205H (Neoprene Cushions)*
- *WB85 (Grade 5 Bolt)*

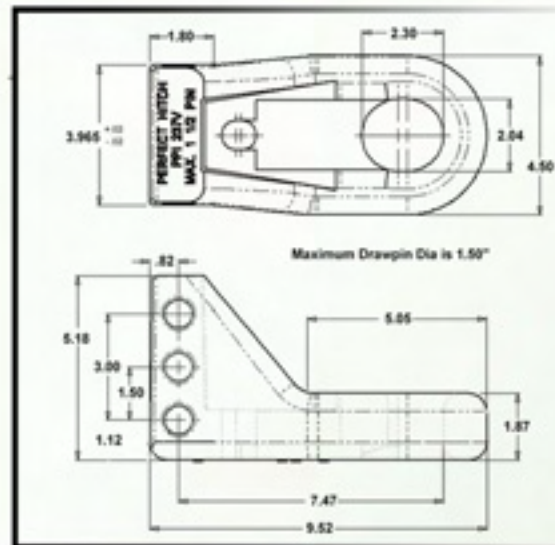
PPI-201VH
HITCH OPTION

CATEGORY: 3

BASE HITCH
PPI-237VR



- Vertical Mounting Hitch
- Vertical Load 4,000 lbs.
- Draft Load 56,000 lbs.
- Maximum Drawpin Size 1.5" for 40° of Roll & Pitch Articulation



PPI-237VR
PERFECT HITCH OPTION

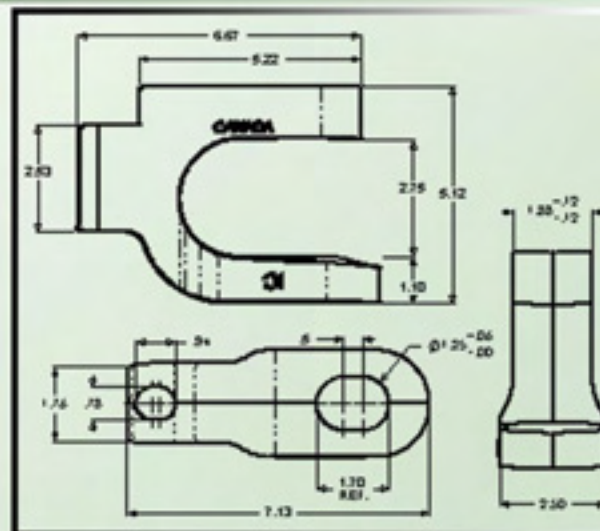


- PPI-202V (Top Plate)
- PPI-203VR (V-Block)
- PPI-205H (Neoprene Cushions)
- WB83 (Grade 5 Bolt)

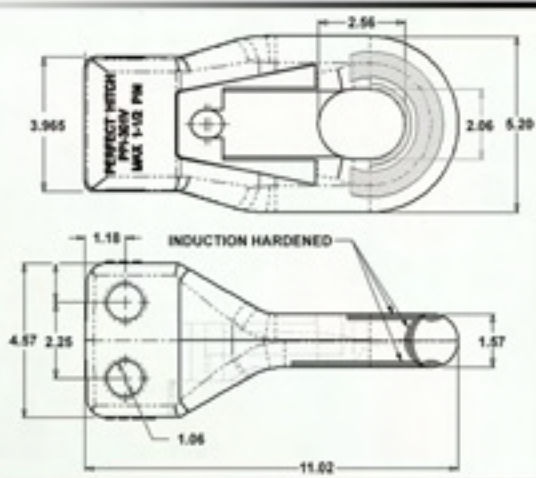
BASE HITCH
PPI-237VR
CLEVIS OPTIONS



- PPI-206VR (Clevis - 1" Drawpin Size)
- PPI-207V (Clevis - 1.375" Drawpin Size)
- PPI-208VR (Clevis - 1.25" x 1.75" Slotted Hole)
- 15,000 lbs. pull on bottom tongue
- WB90 (Grade 8 Bolt)
- WB91 (Nut)



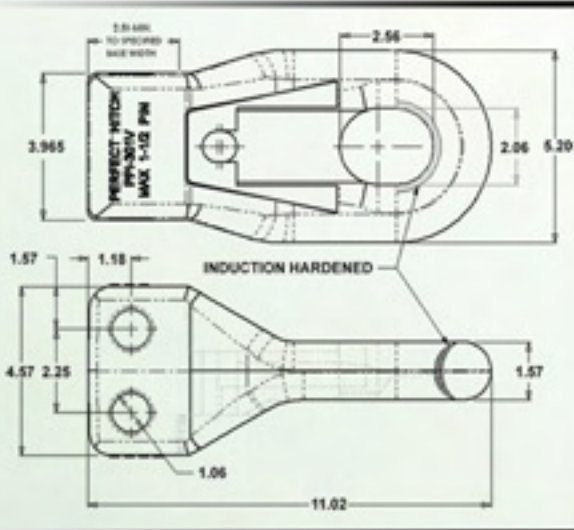
CATEGORY: 3



- Vertical Mounting Hitch
- Vertical Load 5,000 lbs.
- Draft Load 68,000 lbs.
- Maximum Drawpin Size 1.5" for 40° of Roll & Pitch Articulation



BASE HITCH
PPI-301VH



- Vertical Mounting Hitch
- Vertical Load 5,000 lbs.
- Draft Load 68,000 lbs.
- Maximum Drawpin Size 1.5" for 40° of Roll & Pitch Articulation



BASE HITCH
PPI-301V3



CLEVIS OPTIONS
PPI-301VH
PPI-301V3

- PPI-206VR (1" Drawpin Size)
- PPI-207V (1.375" Drawpin Size)
- PPI-208VR (1.25" x 1.75" Slotted Hole)
- 15,360 lbs. pull on bottom tongue
- WB90 (Grade 8 Bolt)
- WB91 (Nut)



PERFECT HITCH OPTIONS
PPI-301VH
PPI-301V3

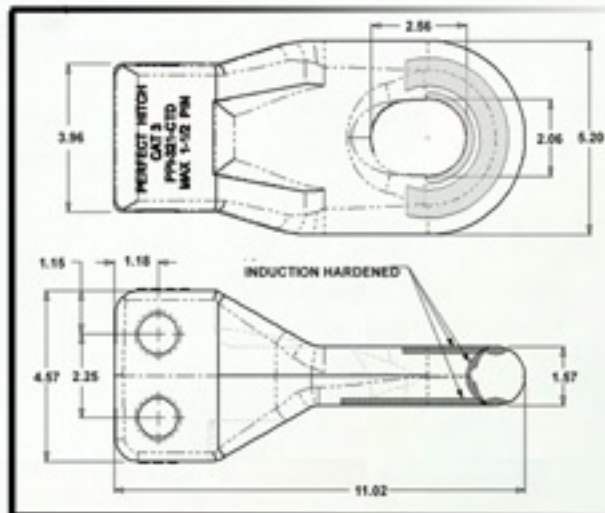
- PPI-302V (Top Plate)
- PPI-203VR (V-Block)
- PPI-205H (Neoprene Cushions)
- WB83 (Grade 5 Bolt)

CATEGORY: 3

BASE HITCH PPI-321CTD3



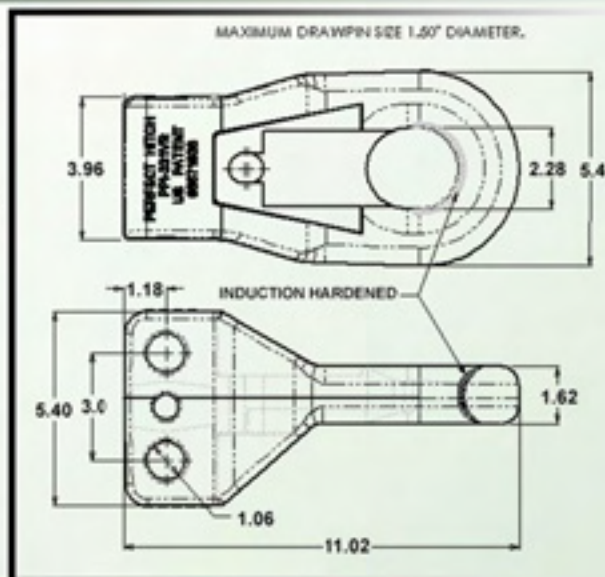
- Vertical Mounting Hitch
- Vertical Load 6,000 lbs.
- Draft Load 68,000 lbs.
- Maximum Drawpin Size 1.5" for 40° of Roll & Pitch Articulation



BASE HITCH PPI-331VH



- Vertical Mounting Hitch
- Vertical Load 5,000 lbs.
- Draft Load 76,000 lbs.
- Maximum Drawpin Size 1.5" for 40° of Roll & Pitch Articulation



CLEVIS OPTIONS PPI-331VH



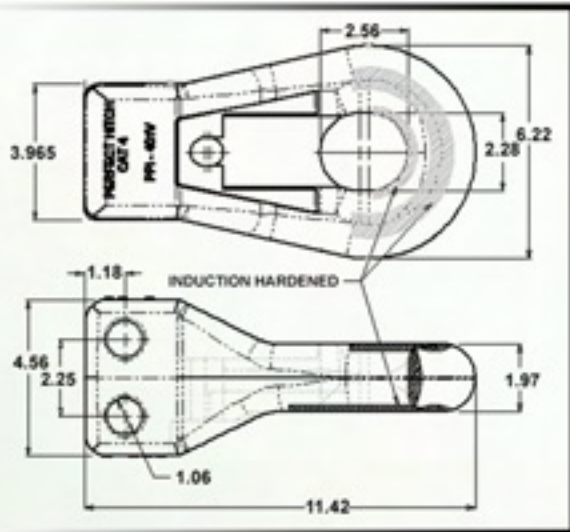
- PPI-206VR (1" Drawpin Size)
- PPI-207V (1.375" Drawpin Size)
- PPI-208VR (1.25" x 1.75" Slotted Hole)
- 15,000 lbs. Pull on Bottom Tongue
- WB82 (Grade 8 Bolt)
- WB91 (Nut)

PERFECT HITCH PPI-331VH OPTION



- PPI-302V (Top Plate)
- PPI-203VR (V-Block)
- PPI-205H (Neoprene Cushions)
- WB83 (Grade 5 Bolt)

CATEGORY: 4



- Vertical Mounting Hitch
- Vertical Load 7,500 lbs.
- Draft Load 106,000 lbs.
- Maximum Drawpin Size 2.0" for 40° of Roll & Pitch Articulation



BASE HITCH
PPI-401V3



Clevis on Cat. 4 Hitch for transport use only!

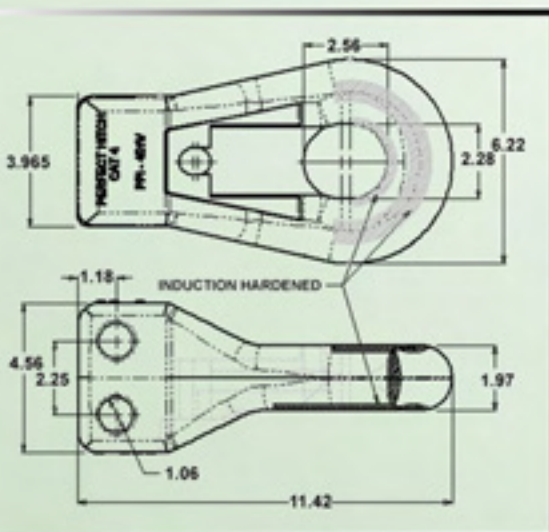
- PPI-206VR (1" Drawpin Size)
- PPI-207V (1.375" Drawpin Size)
- PPI-208VR (1.25" x 1.75" Slotted Hole)
- 15,000 lbs. Pull on Bottom Tongue
- WB82 (Grade 8 Bolt)
- WB91 (Nut)

PERFECT HITCH OPTION
PPI-401V3

- PPI-302V (Top Plate)
- PPI-203VR (V-Block)
- PPI-205H (Neoprene Cushions)
- WB83 (Grade 5 Bolt)



CLEVIS OPTION
PPI-401V3



- Vertical Mounting Hitch
- Vertical Load 8,000 lbs.
- Draft Load 106,000 lbs.
- Maximum Drawpin Size 2.0" for 40° of Roll & Pitch Articulation



BASE HITCH
PPI-421V3

AUSTEMPERED HITCHES

AUSTEMPERING
PROCESS

Austempered ductile iron (ADI) is ductile iron (DI) that has undergone a special austemper heat treat process. Compared to conventional grades of DI, ADI exhibits more than twice the strength for a given level of ductility. This process is obtained by heating the casting to a suitable austenitizing temperature and holding for the time necessary to saturate the austenite with carbon. Then the casting is quenched, at a rate rapid enough to avoid the formation of pearlite (or other high temperature transformation products) to a temperature above the martensite start (M(8)) temperature. The casting is held at that temperature for a time sufficient to produce the desired structure. The part is then cooled to room temperature.

AVAILABLE HITCH OPTIONS

PP23XL is fully compatible with the standard Perfect Hitch Option:

- PPI-202V (Top Plate)**
- PPI-203VR (V-block)**
- PPI-205H (Neoprene Cushions)**
- WB83 (Bolt)**



For mounting, the following brackets must be used:

- HB126 (for PP12XL)**
- HB237H (for PP23XL)**
- HB402 (for PP42XL)**



Both PP12XL and PP23XL are designed to accept standard Perfect Hitch Clevis:

PP12XL:

- Use **PPI-106VR (3/4" Drawpin Size)** or **PPI-107VR (1" Drawpin Size)**

***Both clevis' use:**

- WB99 Bolt (1/2" - 20UNF x 4 1/2" lg.)**
- WB68 Nut (1/2")**

PP23XL:

- Use **PPI-206VR (1" Drawpin Size)** or **PPI-207V (1.375" Drawpin Size)**
- PPI-208VR (1.25" x 1.75" Slotted Hole)**

***Both clevis' use:**

- WB90 Bolt (3/4" - 10UNC x 5" lg.)** and **WB91 Nut (3/4")**

*Grade 8 bolts must be used for all clevis attachments (all bolts listed above are Grade 8)

*Use only hooks or pins of 1 1/2" diameter or less

*CTD is not liable for any failures while using improper hooks or pins or extreme applications out of A.S.A.E. standards.

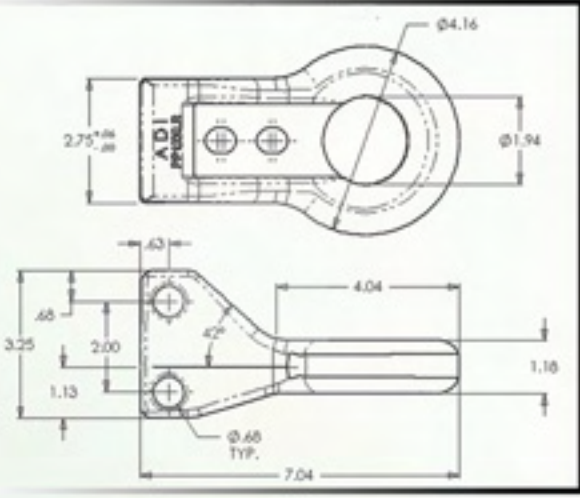


AUSTEMPERED HITCHES:

CATEGORY: 1

PP12XL

BASE HITCH



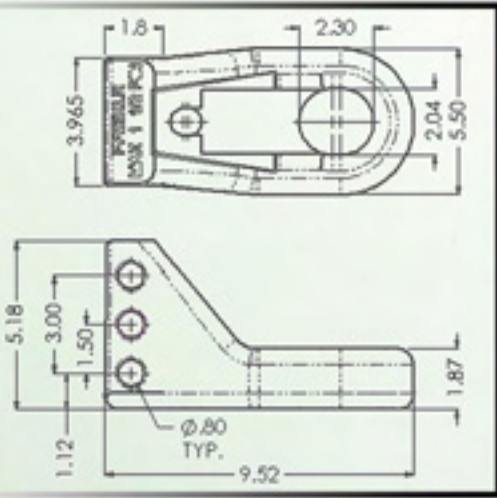
- Vertical Mounting Hitch
- For under 100 HP Draft
- Vertical Load 1,400 lbs.
- Draft Load 45,000 lbs.
- Maximum Drawpin Size 1.5" for 40° of Roll & Pitch Articulation



CATEGORY: 3

PP23XL

BASE HITCH



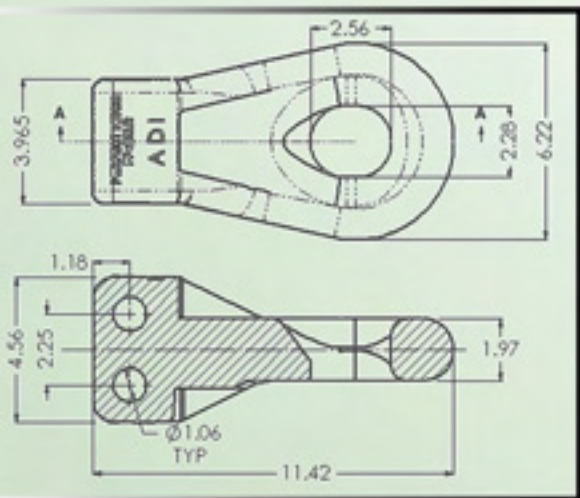
- Vertical Mounting Hitch
- For up to 250 HP Draft
- Vertical Load 6,600 lbs.
- Draft Load 85,000 lbs.
- Maximum Drawpin Size 1.5" for 40° of Roll & Pitch Articulation



CATEGORY: 4

PP42XL

BASE HITCH



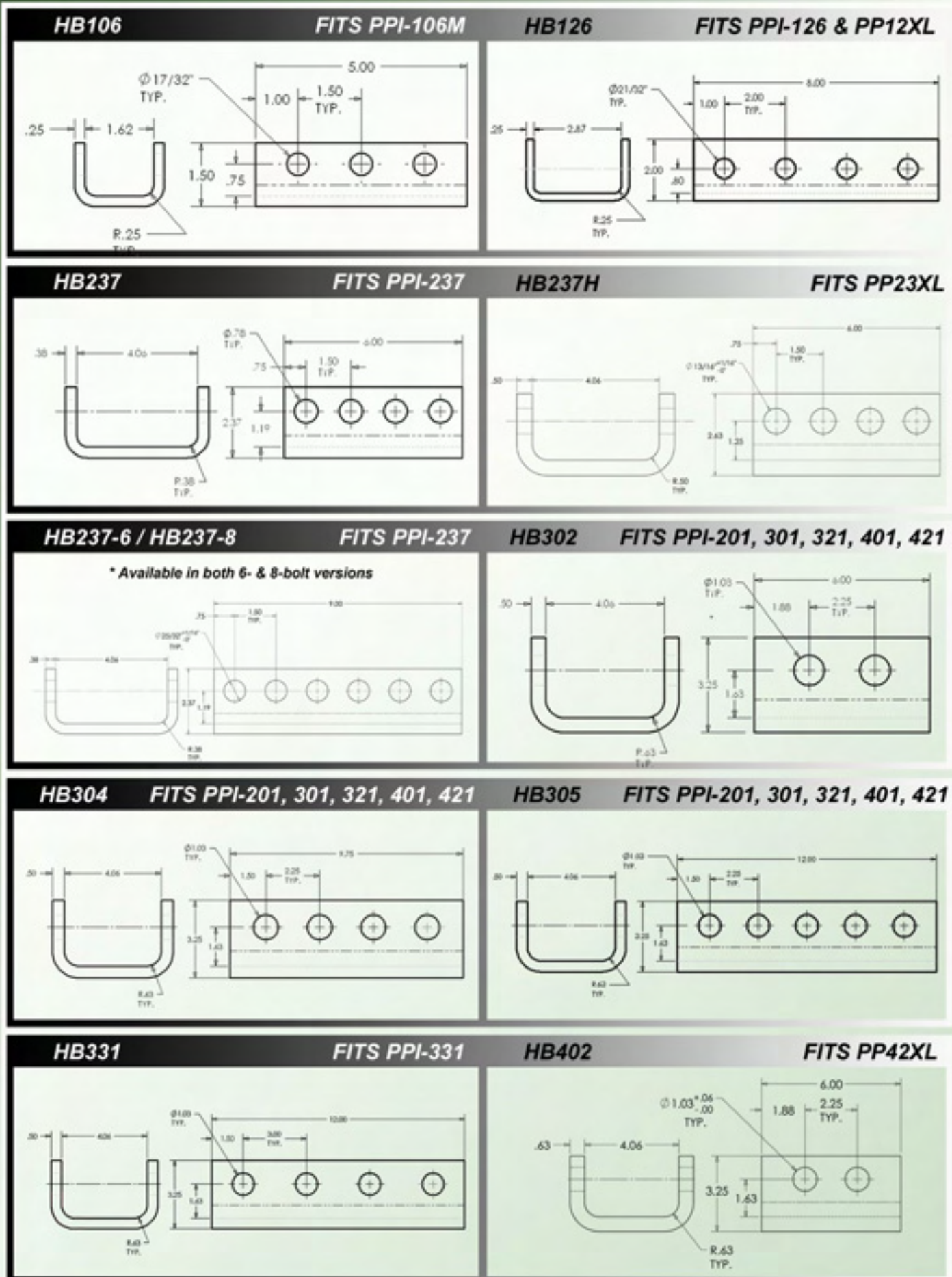
- Vertical Mounting Hitch
- For over 400 HP Draft
- Vertical Load 9,000 lbs.
- Draft Load 110,000 lbs.
- Maximum Drawpin Size 2.0" for 30° of Roll & Pitch Articulation



AUSTEMPERED HITCHES: CATEGORIES 1 - 3 - 4

HITCH BRACKETS: CATEGORIES 1-4

HITCH BRACKETS: FOR STANDARD & AUSTEMPERED HITCHES



WELD-ON IMPLEMENT HITCH BRACKETS

Various sizes allow for easy adaptation of the 3-in-1 Implement Hitch

Always maintain proper PTO dimensions when replacing your implement hitches. It is the responsibility of the Implement Manufacturer / Engineer to determine if the Weld-On Bracket / 3-in-1 Implement Hitch is adequate for the implement application.

IMPORTANT

The vertical loads and draft loads of hitches and clevises in this catalogue are maximum ultimate strength ratings only.

- High vertical loads may require additional induction hardening if affected areas are not hardened already.

Excessive vertical loads which exceed proposed ISO 6489-3 Tractor Drawbar standards will result in excessive wear to hitch or drawbar. Please consult with our sales personnel.

- When mounting hitches, always use full shank of the bolt through brackets to maximize the bolt strength.
- Warranty for all applications is VOID if usages are outside ASAE standards.

WARRANTY

CANADIAN TOOL & DIE LTD. warrants its products to be free from defects in workmanship and material, for a period of one year from date of purchase.

CANADIAN TOOL & DIE LTD. will not be held responsible for any failure of these products due to misuse or abuse (ie. overloading), or incorrect installation.

CANADIAN TOOL & DIE LTD. 's responsibility on all goods purchased is limited to replacement of defective parts only, and excludes any compensations for cost of transportation, installation, removal or repairs as well as any contingent or resulting loss or damage that may have occurred as a result of defects in workmanship and material.

AFTER AUTHORIZATION FROM CANADIAN TOOL & DIE LTD. such parts are to be returned "Prepaid" to CANADIAN TOOL & DIE LTD., Winnipeg, MB, Canada for inspection. Parts found to be defective will be replaced at no charge, FOB our plant, or full credit will be allowed at our option.



POWERPIN INC.

"Hitching For Business"