



YUH CHERN

Forging The Future

www.challengehardware.com.tw

Drop Forged Conveyor Rivetless Chains

Power Trolleys





YCH

YUH CHERN

ABOUT YUH CHERN

In 1979, Yuh Chern Manufacturing Co., Ltd. was established in Taichung City, Taiwan.

Core Business

Since our inception, we have developed a professional hot forging manufacturing service model together with experienced stamping and machining competitiveness that focuses on standardized and customized products in the field of conveyor chains and related products.

Product Range

1 Enclosed Track
Conveyor Chains

2 Drop Forged Rivetless
Conveyor Chains

3 Industrial
Conveyor Chains

The Endless Pursuit for Perfection

Along with business growth, we had not only upgraded manufacturing facilities but also implemented the following management systems:

- ISO 9001 (Quality Management)
- ERP (Enterprise Resource Planning)
- SFT (Shop Floor Tracking)
- PLM (Product Lifecycle Management)
- APS (Advanced Planning and Scheduling)

Experience Makes the Difference

Over the decades, our research and development team has accumulated valuable expertise in product development in order to provide customers with professional technical advice in the early stages of their product development. The efforts include material analysis, structure design and surface treatment. By utilizing software such as AutoCAD, Solidworks, Autodesk Inventor, SolidCAM, Cimatron CAD/CAM and Geomagic Design, we are capable of processing more than a hundred development cases per year. This has allowed us to provide increased product developing efficiency and helped customers to shorten the products TTM (time to market) period.



Company Quality Policy

Customer Satisfaction & Continuous Improvement



Company Vision

To further our knowledge and skill capabilities as a service provider in the technical fields of forging, stamping and machining.



Company Mission

Through quality services and innovation, provide our customers with the most trusted and technologically advanced products.

POWER TROLLEYS

The main function of the trolley is to support the weight of the chain, the hanger, the piece in work and other conveying equipment parts. Therefore, selecting the appropriate trolley is crucial at the design phase of setting up a conveyor. The main parts of a trolley are: bearings, forged brackets, and hangers.

Bearings

Both inner and outer rings are made of alloy steel. This steel combined with a hot and cold forging processing and precision machining provides a high quality durable product. They come in two options: Full Ball Complement Type and Retainer Type. The design includes grease fittings to ensure full lubrication and low friction on the ball bearings. The deepened ring raceways can withstand the impact load coming from any direction. The enlarged bearing clearance will stop the bearing from freezing up under thermal expansion conditions. The triple labyrinth seal design provides excellent protection from contaminants. We provide a variety of seal designs to match the customer's equipment environment.

- **Full Ball Complement Type (Standard)**

The advantage of the full ball complement type is that it is easy to maintain. Because of the large surface contact area of each steel ball on the inner and outer rings of the bearing unit, it can endure high load capacities. This type of trolley wheel has no retainer or retaining ring and is the first-choice trolley wheel for use in applications where the components are prone to exposure to contaminants, dirt, grit, moisture, etc.

- **Retainer Type (Optional)**

The advantage of the retainer design is the reduction of the bearing's steel balls colliding into each other during rotations. The durability and smoothness of the steel balls are enhanced, thereby ensuring a longer service life of the bearing unit.

Forged Brackets

Our forged brackets are forged from high-strength carbon steel. The brackets are divided into two types: Overhead and Inverted. The brackets are pulled along the track by the chain and they need to bear the resultant tension of the chain when the chain goes through horizontal and vertical turns. The brackets ensure the chain runs according to the designed track line. The strength of the brackets is crucial and will influence the service life of conveyor systems.

Hangers

The Hanger load must be directly below or above the trolleys, so that the vertical load does not affect the chain operation. If the load exceeds the maximum capacity of a single trolley assembly, a load bar is used to connect two trolley assemblies and equally distribute the load over the pair of trolleys. The load is suspended at the center of the load bar. We offer a wide variety of Hangers for customer to choose from.

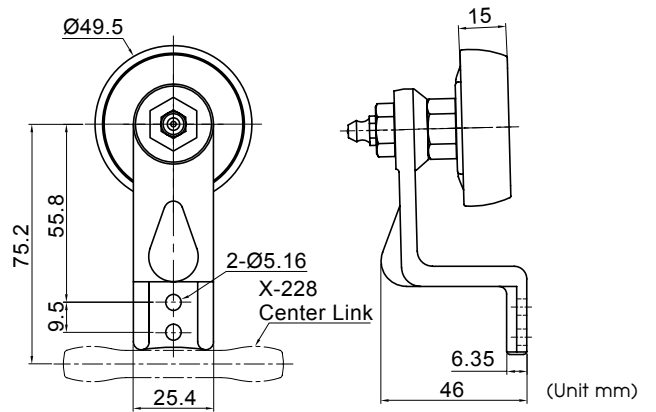


2" Overhead Power Trolleys

- **X-228 Half Trolley 75.2 Drop**

Item NO. 6013219AA1

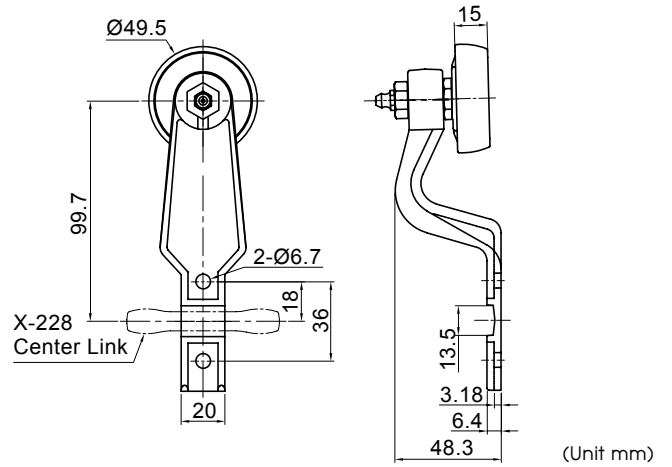
Load Capacity | 50
Pair (kg)



- **X-228 Half Trolley 99.7 Drop**

Item NO. 6013221AA1

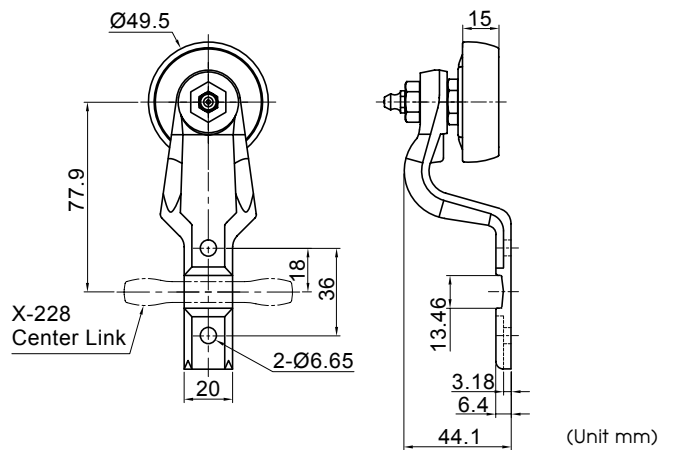
Load Capacity | 50
Pair (kg)



- **X-228 Half Trolley 77.9 Drop**

Item NO. 6013248AA1

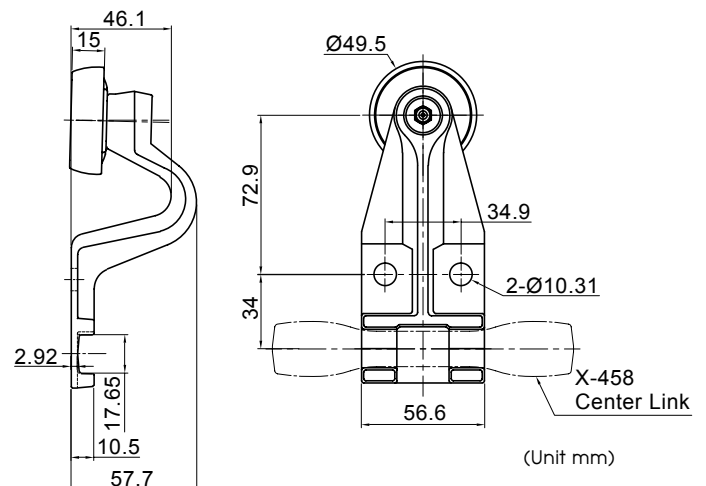
Load Capacity | 50
Pair (kg)



- **2"x4" Half Trolley 106.9 Drop**

Item NO. 6013307AA1

Load Capacity | 100
Pair (kg)

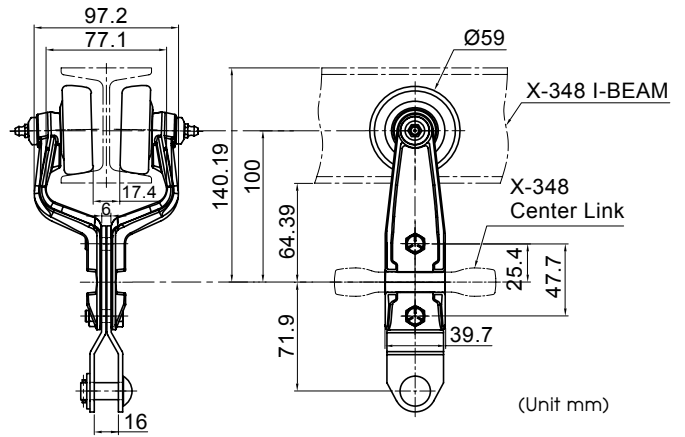


3" Overhead Power Trolleys

- **X-348 Trolley with H Attachment 65.4 Drop**

Item NO. 6013301AC7

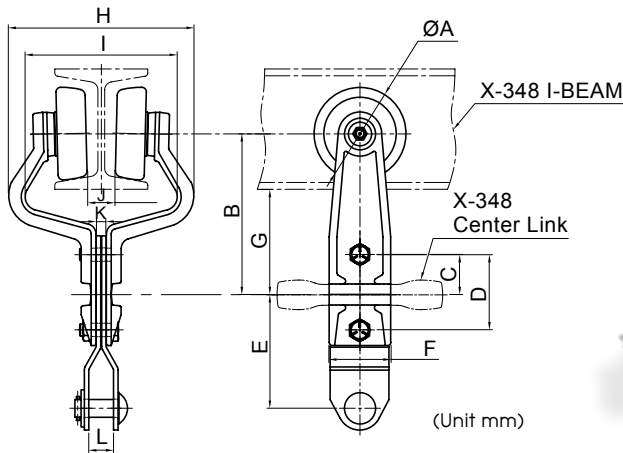
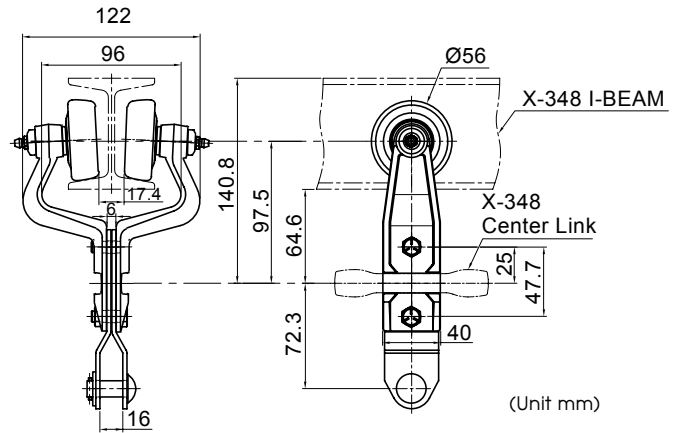
Load Capacity | 150
Pair (kg)



- **X-348 Trolley with H Attachment 64.6 Drop**

Item NO. 6013310AC3

Load Capacity | 150
Pair (kg)

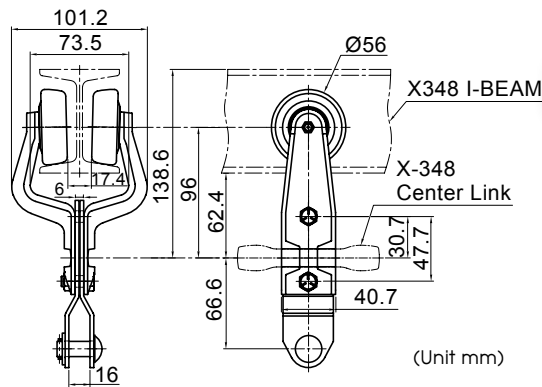


Item NO.	Description	A	B	C	D	E	F	G	H	I	J	K	L	Load Capacity Pair (kg)
6013306AC1	X-348 Trolley with H Attachment 66.8 Drop (59 Bearing)	59	101.8	25.4	47.7	71.9	39.7	66.8	116.8	96.2	17.4	6	16	150
6013306BC3	X-348 Trolley with H Attachment 68.3 Drop (56 Bearing)	56	101.8	25.4	47.7	71.9	39.7	68.3	116.8	96.2	17.4	6	16	150
6013306AC2	X-348 Trolley with H Attachment 69.3 Drop (54 Bearing)	54	101.8	25.4	47.7	71.9	39.7	69.3	116.8	96.2	17.4	6	16	150
6013302AC2	X-348 Trolley with H Attachment 64.1 Drop (59 Bearing)	59	99.3	25.4	47.6	71.9	39.9	64.1	102.6	78.9	17.4	6	16	150
6013303AC1	X-348 Trolley with H Attachment 64.4 Drop (56 Bearing)	56	98.1	25.53	47.63	71.7	39.88	64.4	121.4	98.2	17.4	6	16	150
6013310AC1	X-348 Trolley with H Attachment 66.8 Drop (56 Bearing)	56	100	25.4	47.7	71.9	40	66.8	105.3	79.8	17.4	6	16	150

• **X-348 Trolley with H Attachment 62.4 Drop**

Item NO. 6013310AC2

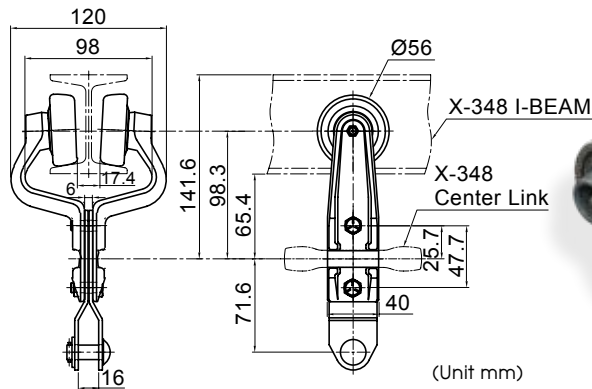
Load Capacity | 150
Pair (kg)



• **X-348 Trolley with H Attachment 65.4 Drop**

Item NO. 6013310AC4

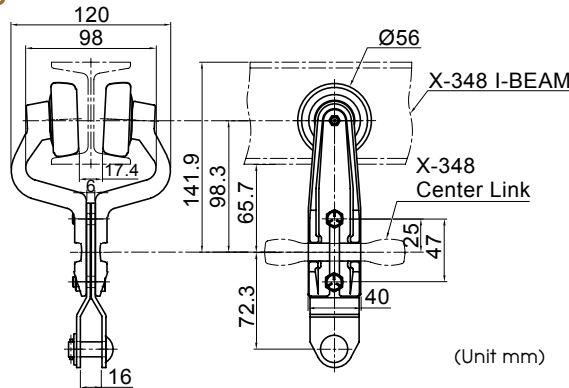
Load Capacity | 150
Pair (kg)



• **X-348 Trolley with H Attachment 65.7 Drop**

Item NO. 6013310AC5

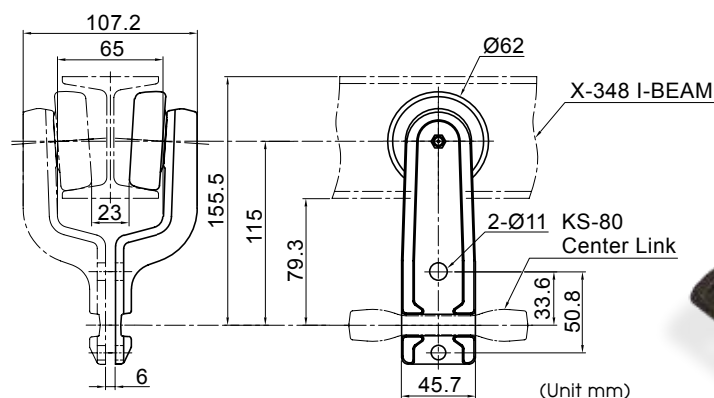
Load Capacity | 150
Pair (kg)



• **KS-80 Half Trolley 79.3 Drop (62 Bearing)**

Item NO. 6013308AA3

Load Capacity | 150
Pair (kg)

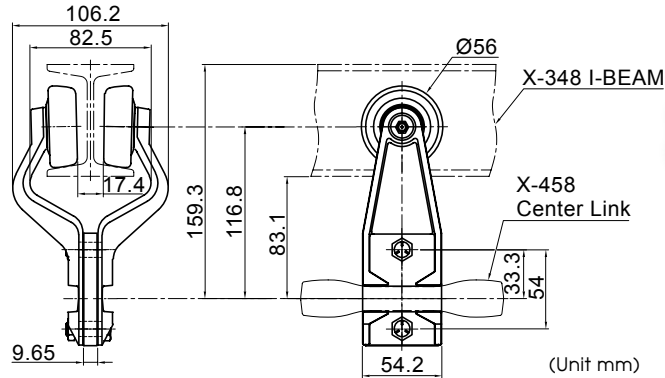


3"x4" & 3"x6" Overhead Power Trolleys

• **3"x4" Trolley with I Attachment 83.1 Drop**

Item NO. 6013304AC1

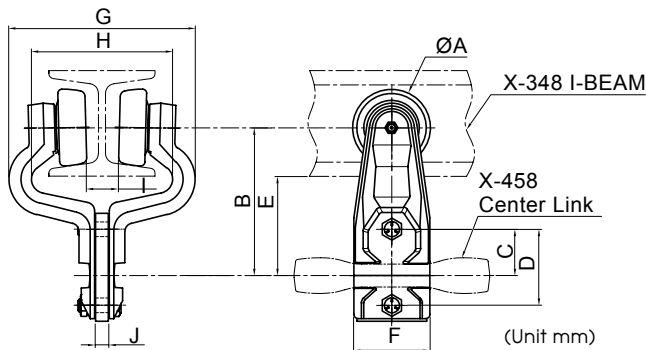
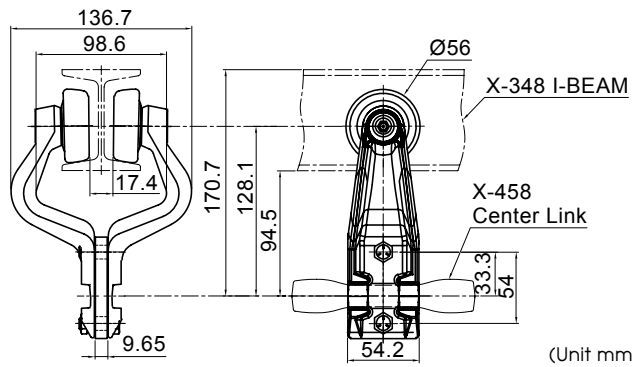
Load Capacity | 150
Pair (kg)



• **3"x4" Trolley with I Attachment 94.5 Drop**

Item NO. 6013425AC1

Load Capacity | 150
Pair (kg)

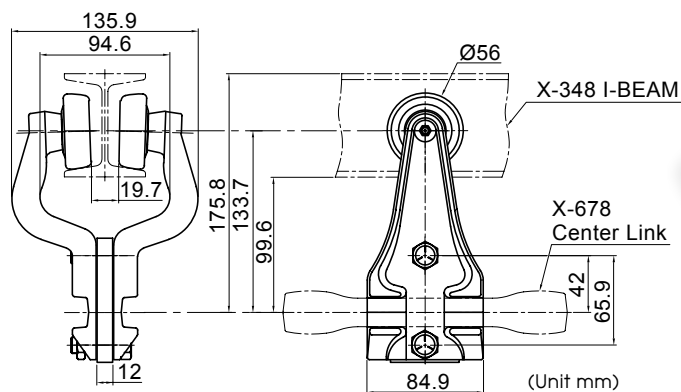


Item NO.	Description	A	B	C	D	E	F	G	H	I	J	Load Capacity Pair (kg)
6013426AC1	3"x4" Trolley with I Attachment 94.2 Drop	56	128.6	33.3	54	94.2	58.3	136.7	95.4	17.4	9.65	150
6013309AF2	3"x4" Trolley with I Attachment 70.4 Drop	55	104.8	33	54	70.4	54.2	131.7	99.7	22.6	9.65	150

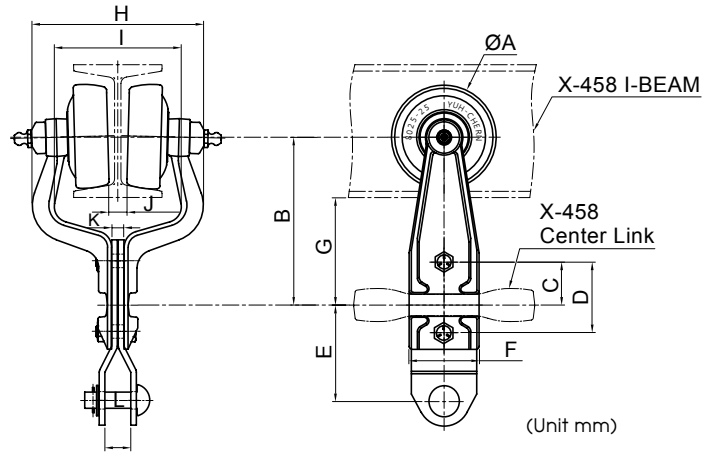
• **3"x6" Trolley with I Attachment 99.6 Drop**

Item NO. 6013604AC1

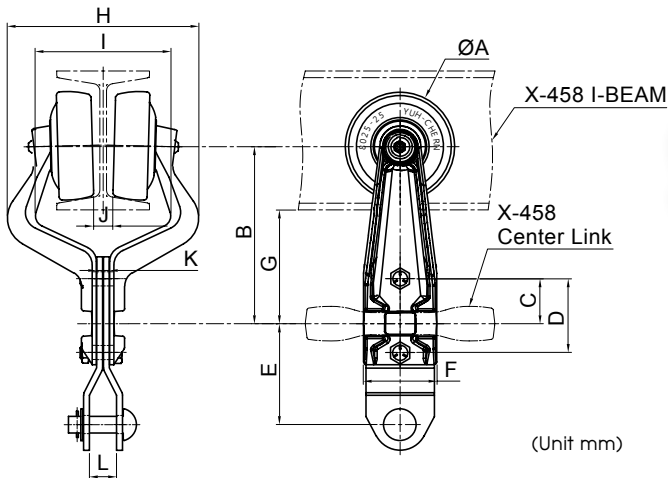
Load Capacity | 150
Pair (kg)



4" Overhead Power Trolleys



Item NO.	Description	A	B	C	D	E	F	G	H	I	J	K	L	Load Capacity Pair (kg)
6013420AC1	X-458 Trolley with H Attachment 82.1 Drop	80	128.3	33	54	73.7	54	82.1	131	97	13.9	9	20	250
6013421AC1	X-458 Trolley with H Attachment 102.4 Drop	80	149	34.5	54	72.2	55	102.4	138.2	94.4	13.9	9	20	250
6013403AC1	X-458 Trolley with H Attachment 82.3 Drop	80	128.6	33.3	54	73.4	54.2	82.3	136	97.9	16.4	9	20	250
6013402AC1	X-458 Trolley with H Attachment 102.9 Drop	80	149.2	33.3	54	73.4	54.2	102.9	136	97.8	13.9	9	20	250

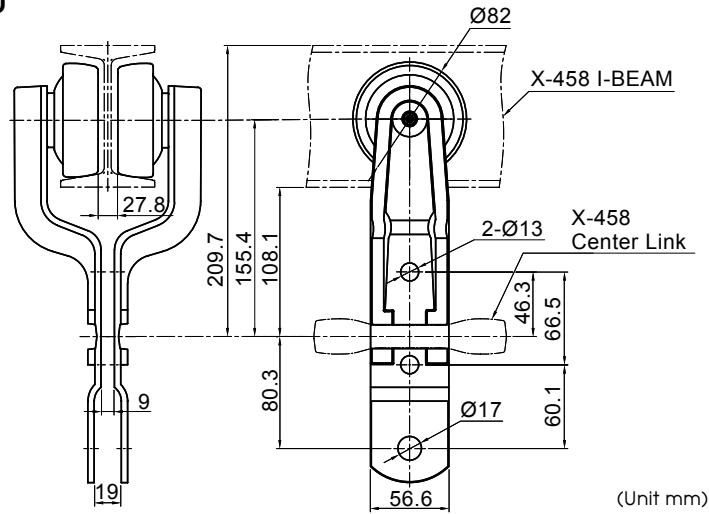


Item NO.	Description	A	B	C	D	E	F	G	H	I	J	K	L	Load Capacity Pair (kg)
6013413AC1	X-458 Trolley with H Attachment 81.9 Drop	80	128.6	33.3	54	73.4	54.2	81.9	136	97.9	13.9	9	20	250
6013411AC1	X-458 Trolley with H Attachment 102.5 Drop	80	149.2	33.3	54	73.4	54.2	102.5	136	97.9	13.9	9	20	250
6013416AC1	X-458 Trolley with H Attachment 102.5 Drop	80	149.2	33.3	54	73.4	54.2	102.5	136	97.9	13.9	9	20	250
6013427AC1	X-458 Trolley with H Attachment 82.1 Drop	80	128.5	33	54	73.7	54	82.1	136.7	99	13.9	9	20	250
6013405AC1	X-458 Trolley with H Attachment 83.3 Drop	80	129.5	33	54	73.7	54	83.2	140	99.2	13.9	9	20	250
6013405AC8	X-458 Trolley with H Attachment 82.2 Drop	82	129.5	33	54	73.7	54	82.3	140	99.2	14.6	9	20	250
6013405EB2	X-458 Trolley with H Attachment 83.3 Drop (V Bearing)	80	129.5	33	54	73.7	54	83.3	140	99.2	13.9	9	20	250

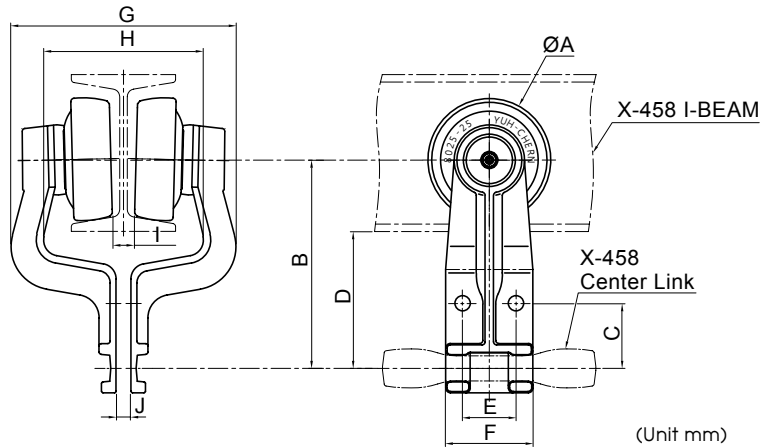
• **KS-100 Half Trolley 106.9 Drop (82 Bearing)**

Item NO. 6013419AA1

Load Capacity | 250
Pair (kg)



(Unit mm)



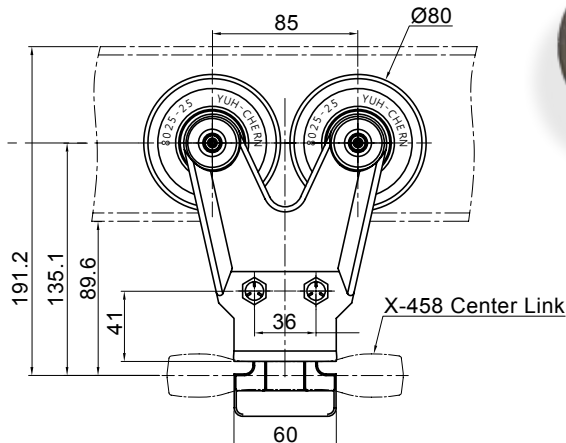
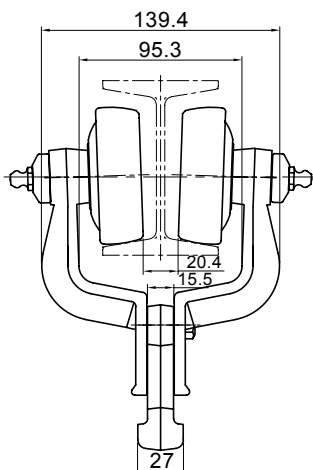
(Unit mm)

Item NO.	Description	A	B	C	D	E	F	G	H	I	J	Load Capacity Pair (kg)
6013311AC1	X-458 Trolley 88.5 Drop	80	134.8	42	88.5	35	57	146	103.4	13.9	9	250
6013424AC1	X-458 Trolley 87.7 Drop	80	134.3	42	87.7	34.9	56.6	148.5	102.5	13.9	9	250

• **X-458 Trolley with T Attachment 89.6 Drop**

Item NO. 6013422AC1

Load Capacity Pair (kg) | 400

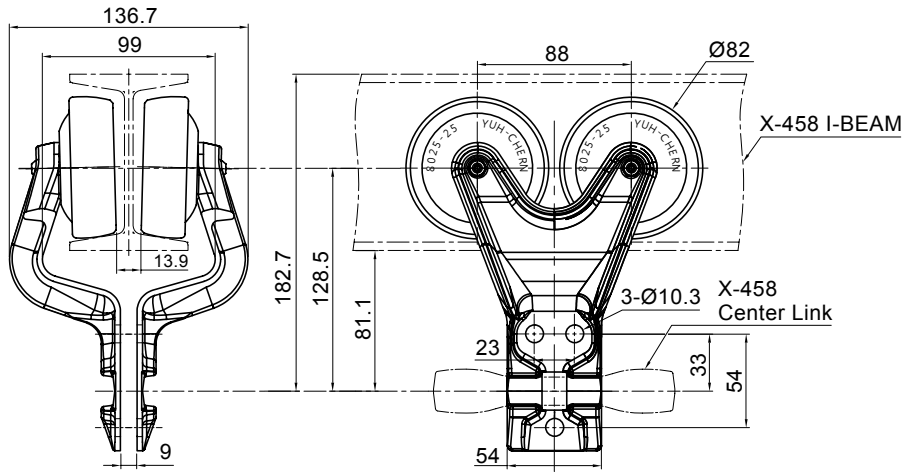


(Unit mm)

• **X-458 Half Trolley 81.1 Drop (4" Heavy Bracket)**

Item NO. 6013405AAE

Load Capacity Pair (kg) | 400

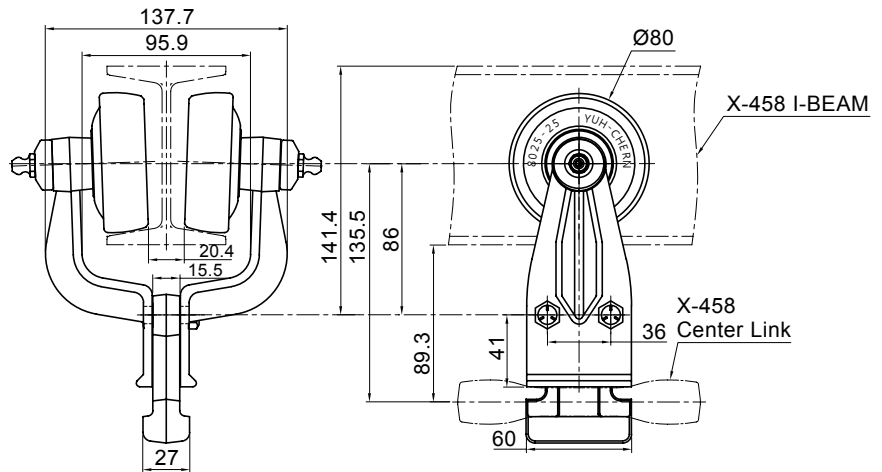


(Unit mm)

• **4" Trolley With T Attachment 89.3 Drop**

Item NO. 6013423AC1

Load Capacity Pair (kg) | 250

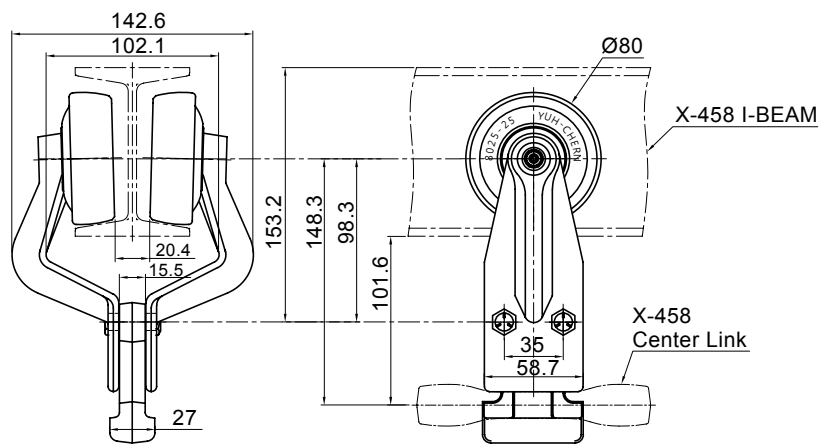


(Unit mm)

• **4" Trolley With T Attachment 101.6 Drop**

Item NO. 6013417AC1

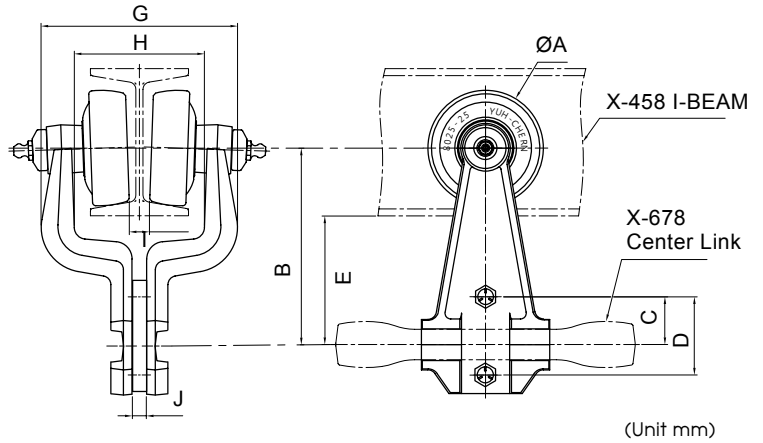
Load Capacity Pair (kg) | 250



(Unit mm)

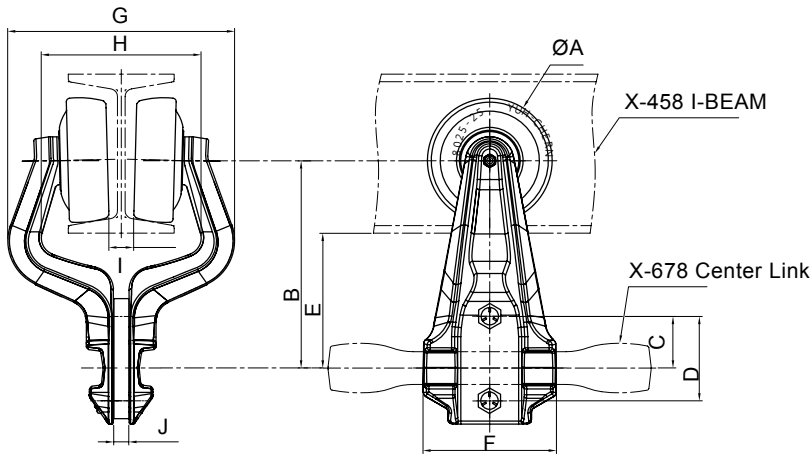
4"X6" Overhead Power Trolleys

Load Capacity Pair (kg) | 250



(Unit mm)

Item NO.	Description	A	B	C	D	E	F	G	H	I	J	Load Capacity Pair (kg)
6013603AC1	4"X6" Trolley with I Attachment 88.7 Drop	80	135.7	33	54	88.7	x	135.7	89.8	13.9	9.65	250
6013408AC1	4"X6" Trolley with I Attachment 112.5 Drop	80	158	43	74	112.5	x	154	100	13.9	12	250

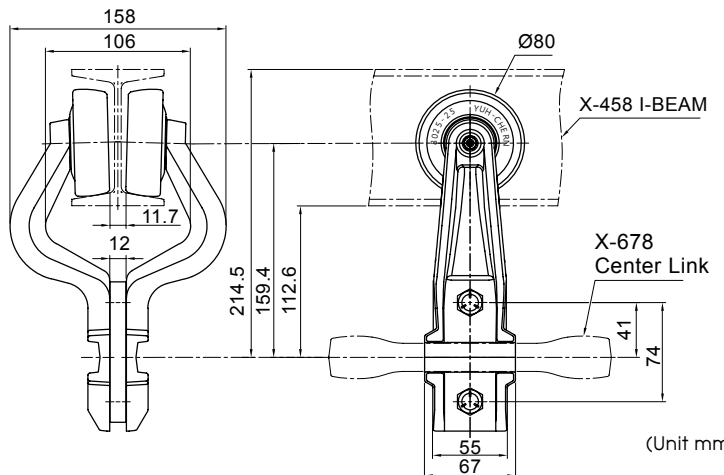


(Unit mm)

Item NO.	Description	A	B	C	D	E	F	G	H	I	J	Load Capacity Pair (kg)
6013404AF000	4"X6" Trolley with I Attachment 87.5 Drop	80	133.7	31.75	54	87.5	85.7	136.7	98.5	17	9.65	250
6013428AC1	4"X6" Trolley with I Attachment 87.5 Drop	80	133.7	31.75	54	87.5	85.73	136.7	98.6	13.9	9.65	250
6013429AC1	4"X6" Trolley with I Attachment 88.2 Drop	80	133.7	31.75	54	88.2	85.73	128.6	92.5	13.9	9.65	250
6013605AC1	4"X6" Trolley with I Attachment 87 Drop	80	133.6	31.8	54	87	85.2	136.6	98.5	13.9	9.65	250
6013406AF1	4"X6" Trolley with I Attachment 86 Drop	80	132.3	33	54	86.1	85.3	145.1	102.2	15.8	9.65	250
6013606AC1	4"X6" Trolley with I Attachment 87.7 Drop	80	133.8	33	54	87.7	85.7	139.7	98.6	13.9	9.65	250

• **4"X6" Trolley with I Attachment 112.9 Drop**
Item NO. 6013410AC1

Load Capacity Pair (kg) | 250



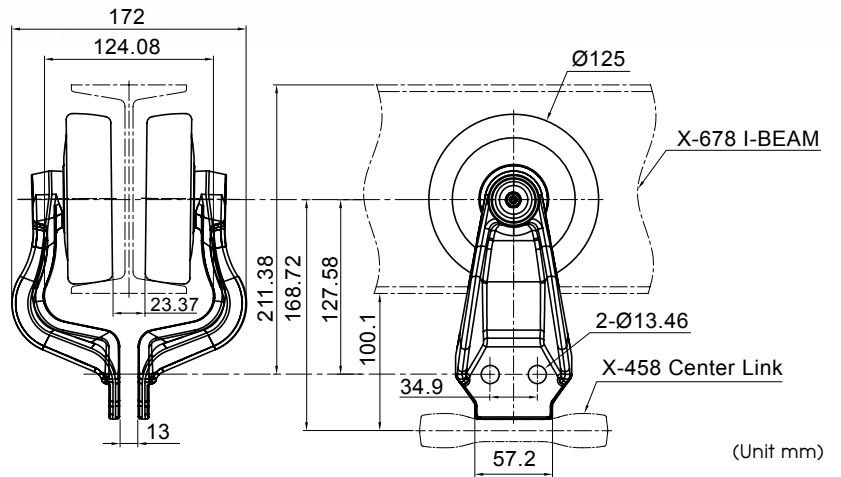
(Unit mm)



6" Overhead Power Trolleys

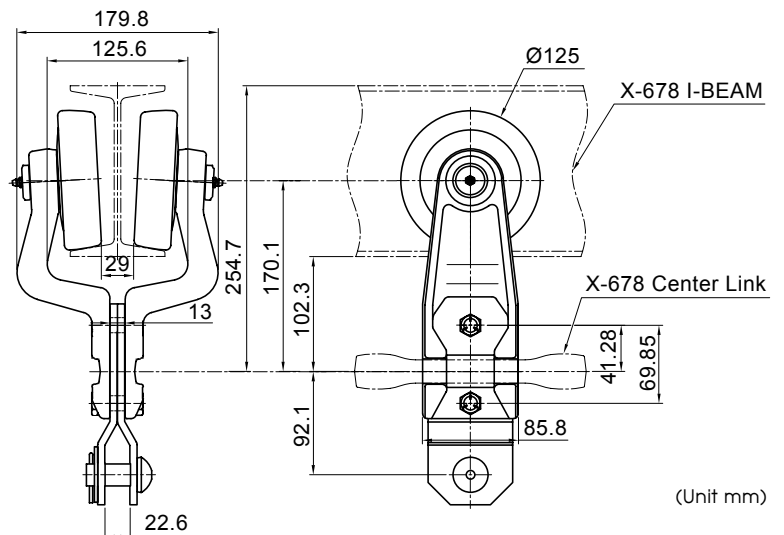
- **6"x4" Trolley 100.1 Drop**
Item NO. 6013409AB2

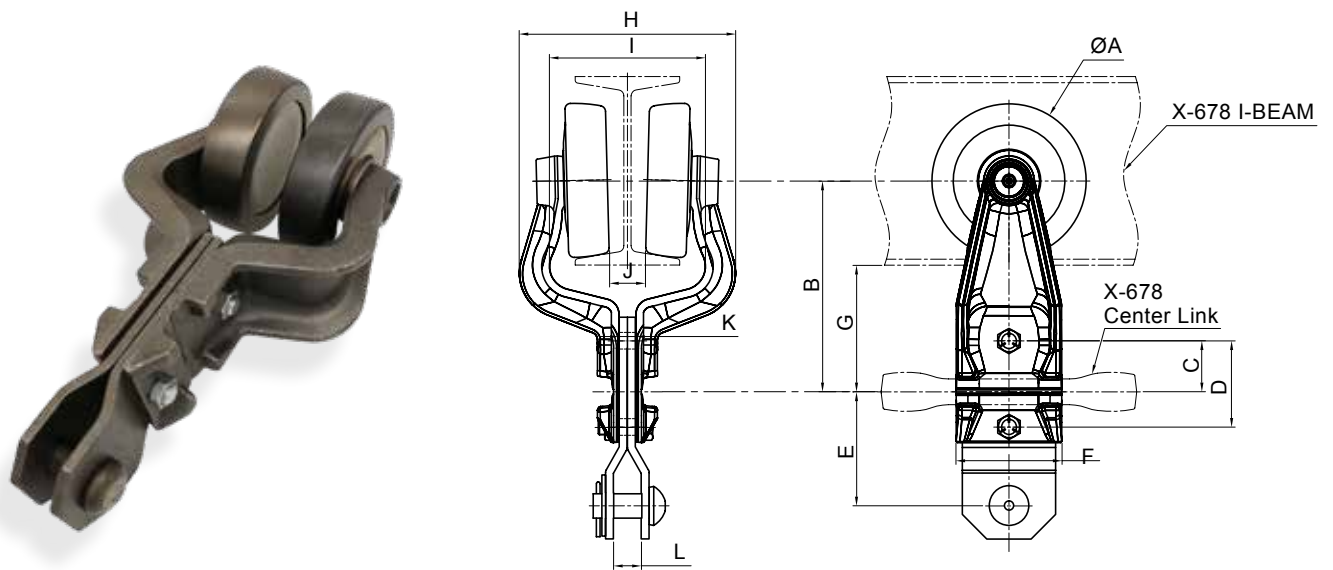
Load Capacity Pair (kg) | 600



- **X-678 Trolley with H Attachement 102.3 Drop**
Item NO. 6013602AC9

Load Capacity Pair (kg) | 600



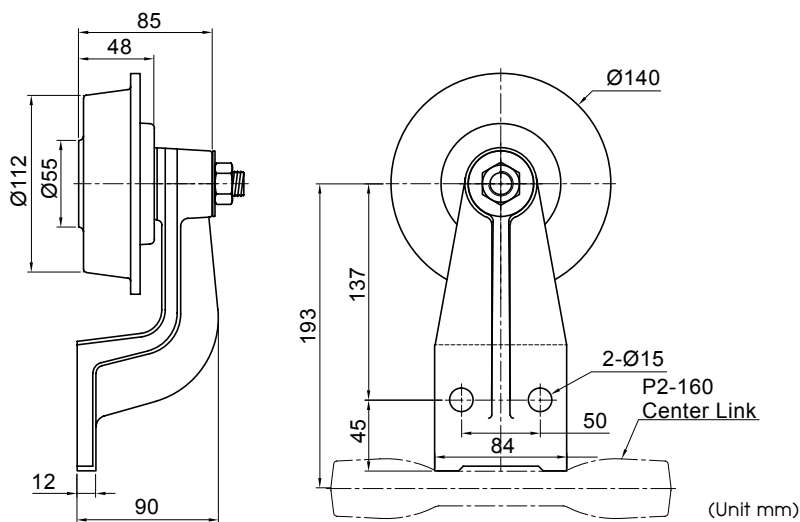


Item NO.	Description	A	B	C	D	E	F	G	H	I	J	K	L	Load Capacity Pair (kg)
6013602AC1	X-678 Trolley with H Attachment 102.2 Drop	125	170.2	41.28	69.85	92.1	85.8	102.2	175	126.3	29	13	22.6	600
6013602AC8	X-678 Trolley with H Attachment 103.7 Drop	122	170.2	41.28	69.85	92.1	85.8	103.7	175	126.3	29	13	22.6	600
6013601AC2	X-678 Trolley with H Attachment 101.5 Drop	125	169.8	41.28	69.85	92.1	85.85	101.5	175.1	127.3	29	13	22.6	600
6013601AC3	X-678 Trolley with H Attachment 101.5 Drop	125	169.8	41.28	69.85	92.1	85.85	101.5	175.1	127.3	29	13	22.6	600

• **P2-160 Half Trolley-140 Bearing**

Item NO. **6013601AA1**

Load Capacity Pair (kg) | 600



- **P2-160 Trolley with H Attachment
128 Drop (140 Bearing)**

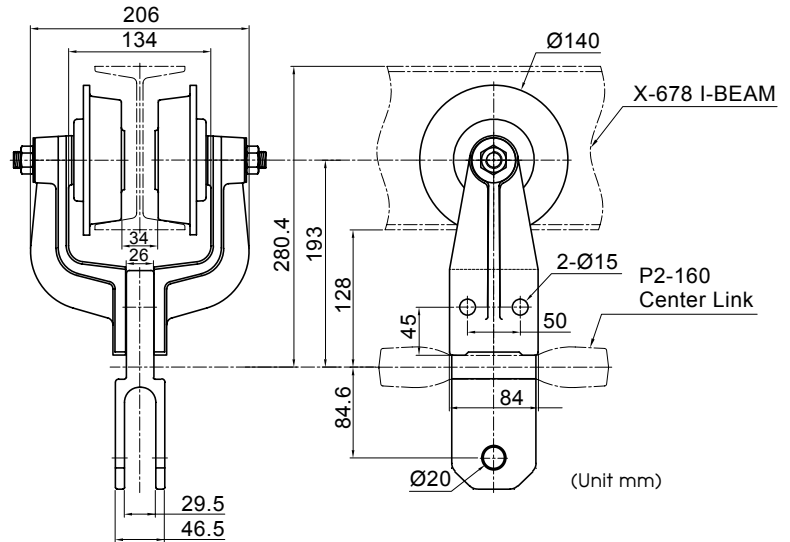
Item NO. 6013601AC1

Load Capacity Pair (kg) | 600

- **P2-160 Trolley with T Attachment
128 Drop (140 Bearing)**

Item NO. 6013601AC4

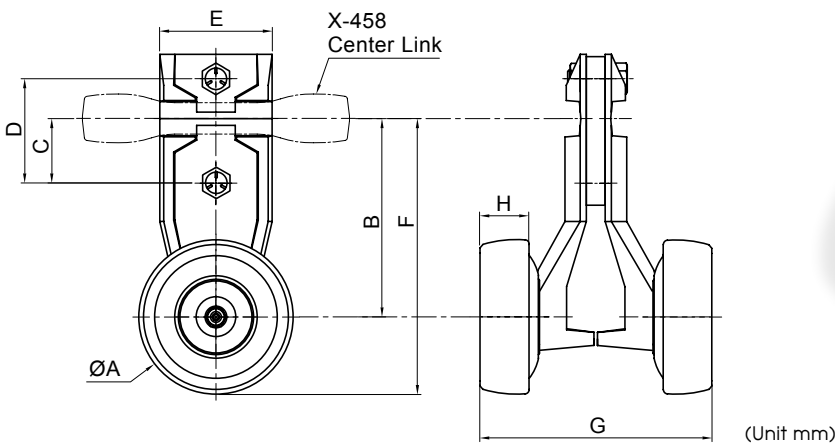
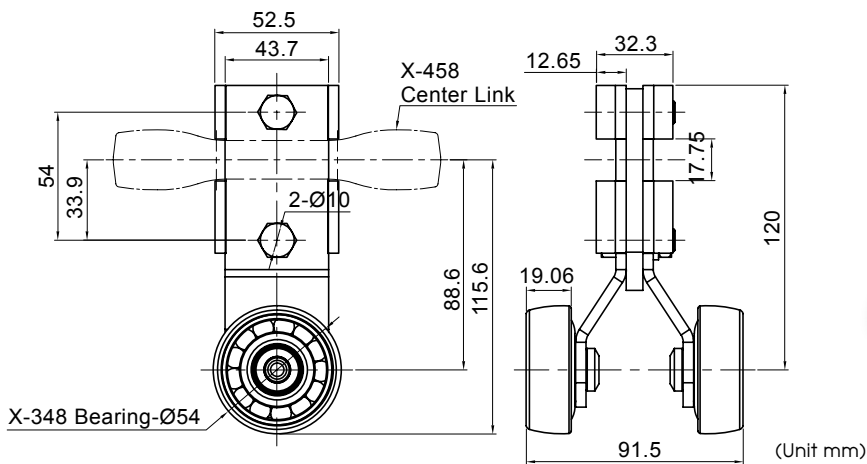
Load Capacity Pair (kg) | 600



4" Inverted Power Trolleys

- **3"X4" Inverted Trolley with I Attachment 115.6 Drop (Stamping)**

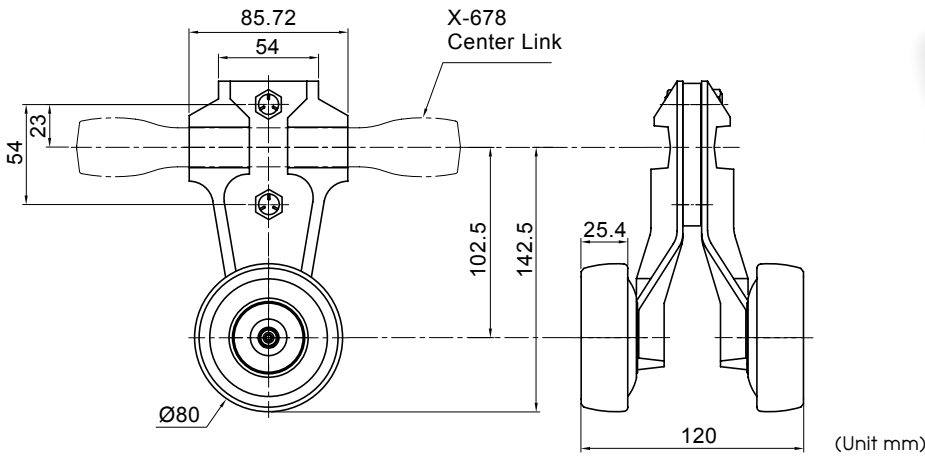
Item NO. 50610200002



Item NO.	Description	A	B	C	D	E	F	G	H
6013703AC1	X-458 Inverted Trolley with I Attachment 135.3 Drop	80	95.3	33.3	54	53.9	135.3	120	25.4
6013704AC1	X-458 Inverted Trolley with I Attachment 142.5 Drop	80	102.5	33.4	54	58.3	142.5	120	25.4

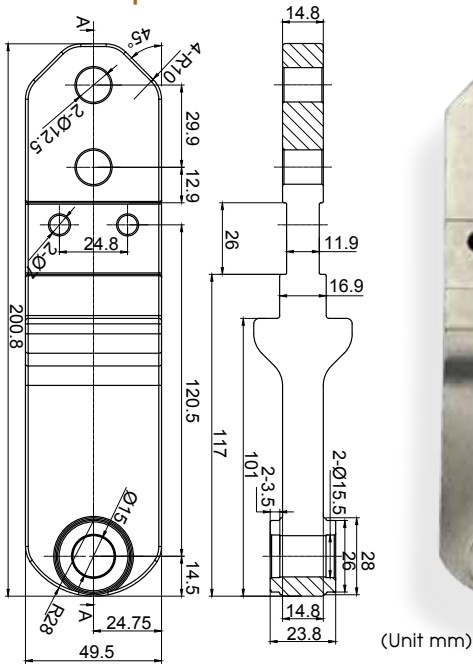
4"X6" Inverted Power Trolleys

- **4"X6" Inverted Trolley with I Attachment 142.5 Drop**
Item NO. 6013801AC1

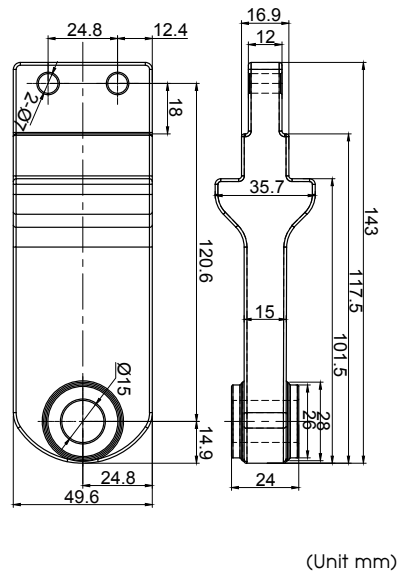


458 Attachment/OEM Parts

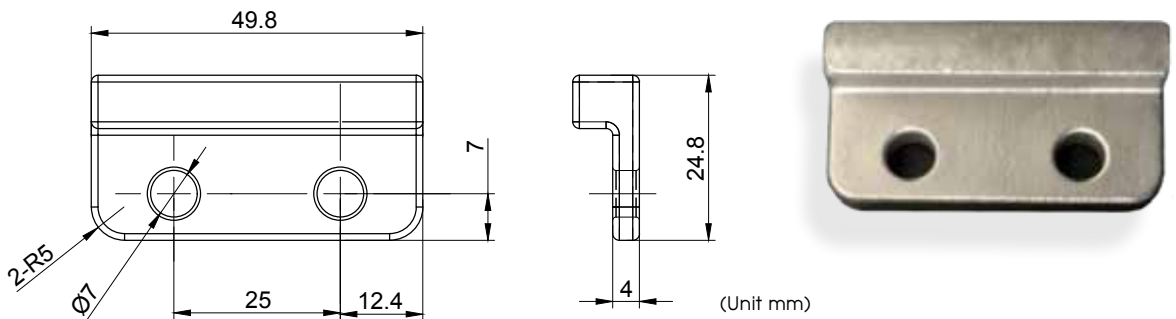
- **458 Cast Pendant**
Item NO 506505204000
 Additional pendant must be used for hanging the workpiece.



- **458 Cast Half Pendant**
Item NO 506505204001
 Additional pendant must be used for hanging the workpiece.



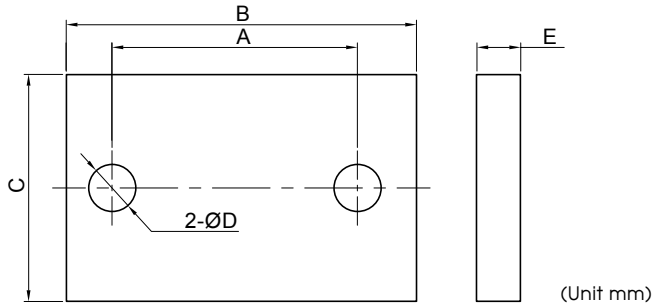
- **458 Cast Pendet clmp**
Item NO 506505204002
 This clamp and the pendant are fitted on the trolley.



"I" Attachments

"I" Attachment

It is used as a filler to complete the assembly of a non-load carrying trolley.

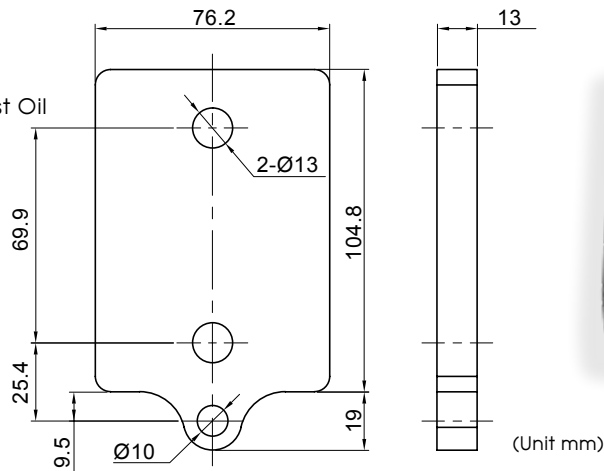


Item NO.	Description	A	B	C	D	E	Material	Surface Finishing
501723002	3" I Attachment	47.9	69.76	40	9	6	JIS G3131	Anti-Rust Oil
501733003	4" I Attachment	54	77.1	50	10.4	9.65	SS400	Anti-Rust Oil
501743006	6" I Attachment	69.85	104.9	76.2	13.46	12	SS400	Anti-Rust Oil

• 6" I Attachmet-3 Holes

Item NO. 501743001

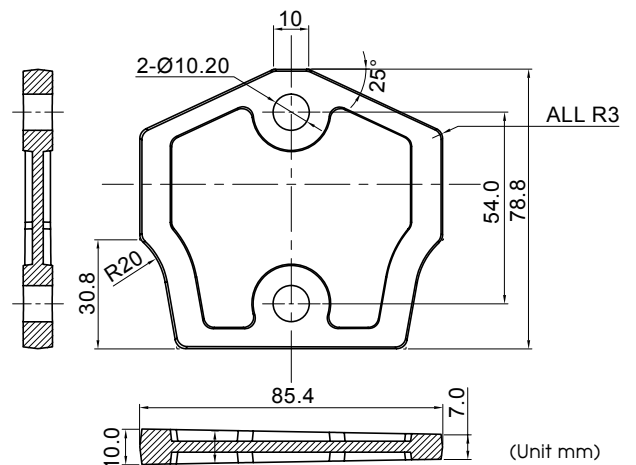
Material | SS400
Surface Finishing | Anti-Rust Oil



• 4"x6" I Attachment (Taper Type)

Item NO. 501733002

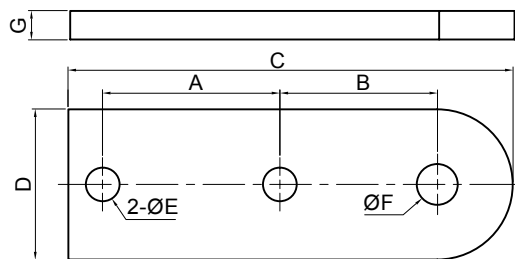
Material | SAE1045
Surface Finishing | Anti-Rust Oil



"C" Attachments

"C" Attachment

This attachment is a single piece metal plate projecting through the chain with a single hole to support very light products.



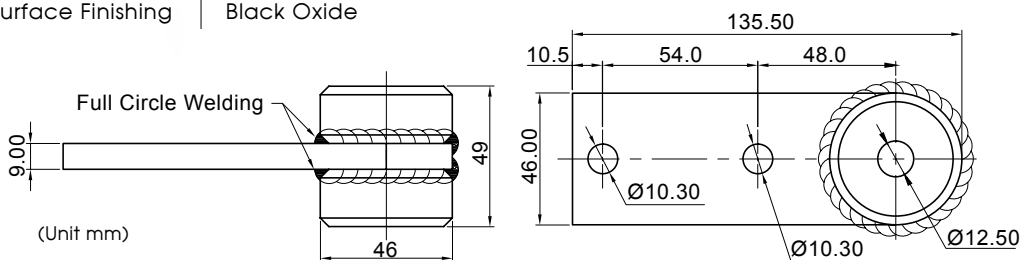
(Unit mm)

Item NO.	Description	A	B	C	D	E	F	G	Material	Surface Finishing
501722002	X-348 C Attachment	47.7	34.85	111.13	38.1	8.74	13.49	6.3	SS400	Anti-Rust Oil
501732004	X-458 C Attachment	54	48	135.5	46	10.3	12.5	9	SAE1045	Anti-Rust Oil
506301901003	X-348 C Attachment	47.7	34.93	111.13	38.1	8.73	22.35	6.35	SS400	Anti-Rust Oil
506301901004	X-458 C Attachment	47.7	34.93	111.13	38.1	8.73	22.35	6.35	SS400	Yellow Zinc Plated

• X-458 C Attachment (Round Bar)

Item NO. 501732003

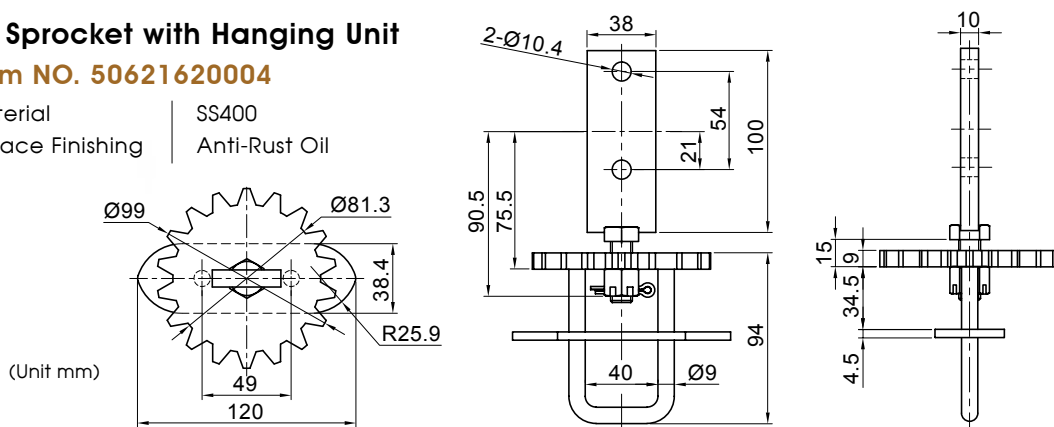
Material | SAE1045
Surface Finishing | Black Oxide



• 4" Sprocket with Hanging Unit

Item NO. 50621620004

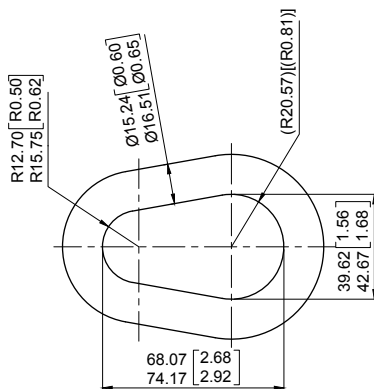
Material | SS400
Surface Finishing | Anti-Rust Oil



• Hanging Ring

Item NO. 506300402000

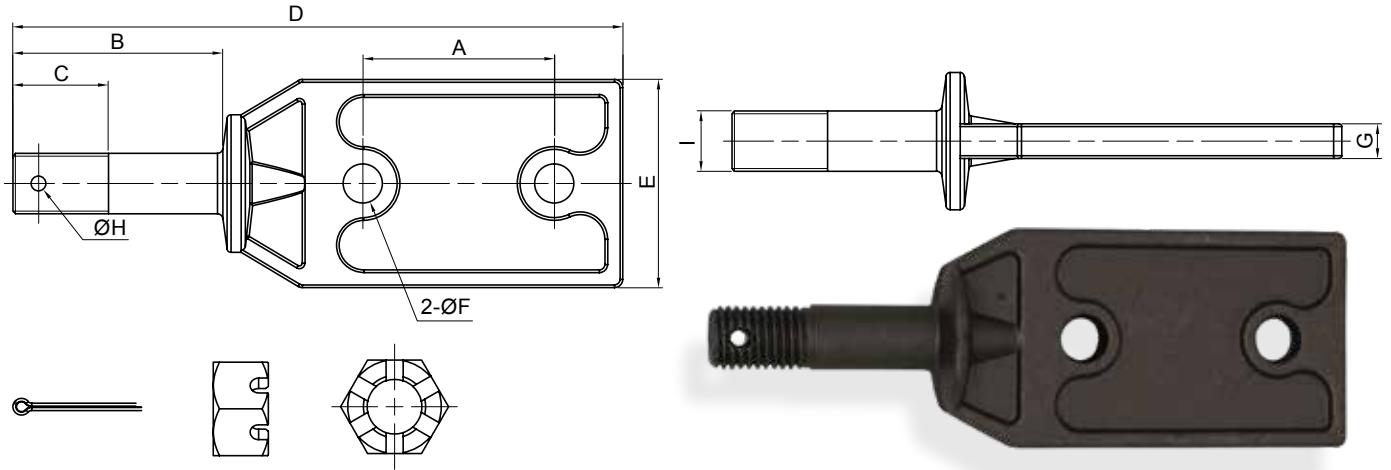
Material | SAE4140
Surface Finishing | Anti-Rust Oil



"B" Attachments

"B" Attachment

The primary use of this attachment is to attach trolley pairs to load bars, but can also be used for many other applications. It is steel forged with a threaded stud.



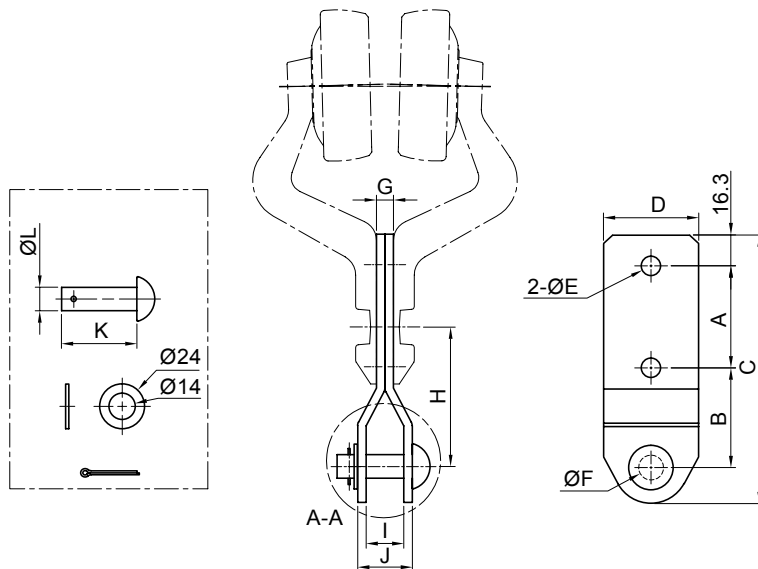
(Unit mm)

Item NO.	Description	A	B	C	D	E	F	G	H	I	Material	Surface Finishing
501720203000	X-348 B Attachment Kit	47.7	45	25.4	147	39.2	8.8	6.4	3.2	1/2 - 13UNC	SAE1045	Anti-Rust Oil
501730203000	X-458 B Attachment Kit	54.0	55.5	30.3	175.5	52.2	10.3	9	3.8	5/8 - 11UNC	SAE1045	Anti-Rust Oil
501740203000	X-678 B Attachment Kit	69.9	76.6	34.9	222.5	76.1	14.3	12.7	5.6	7/8 - 9UNC	SAE1045	Anti-Rust Oil

"H" Attachments

"H" Attachment

The most commonly used trolley attachment. It is a 2-piece steel plated attachment suitable for almost any type of hook, rack or tray.



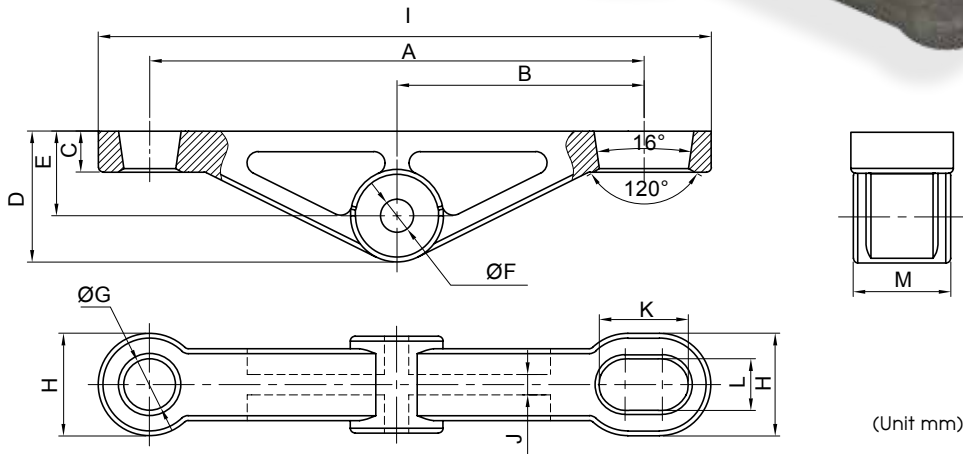
(Unit mm)

Item NO.	Description	A	B	C	D	E	F	G	H	I	J	K	L	Material	Surface Finishing
501720103000	X-348 H Attachment Kit	47.7	49.6	123.4	37.5	8.5	11.5	6	71.9	16	22	34	11	SS400	Anti-Rust Oil
501730103000	X-458 H Attachment Kit	54	52.7	143.5	50.5	10.3	13.3	9	73.7	20	29	40	12.5	SS400	Anti-Rust Oil
501740103000	X-678 H Attachment Kit	69.9	63.6	179.5	76	13.5	20.6	13	92.1	22.6	35.6	40	12.5	JIS G3131	Anti-Rust Oil

Overhead Trolley Load Bars

Overhead Trolley Load Bars

This attachment is casted. Its primary use is to distribute the load over a pair of trolleys by connecting two trolley assemblies with "B" attachment.

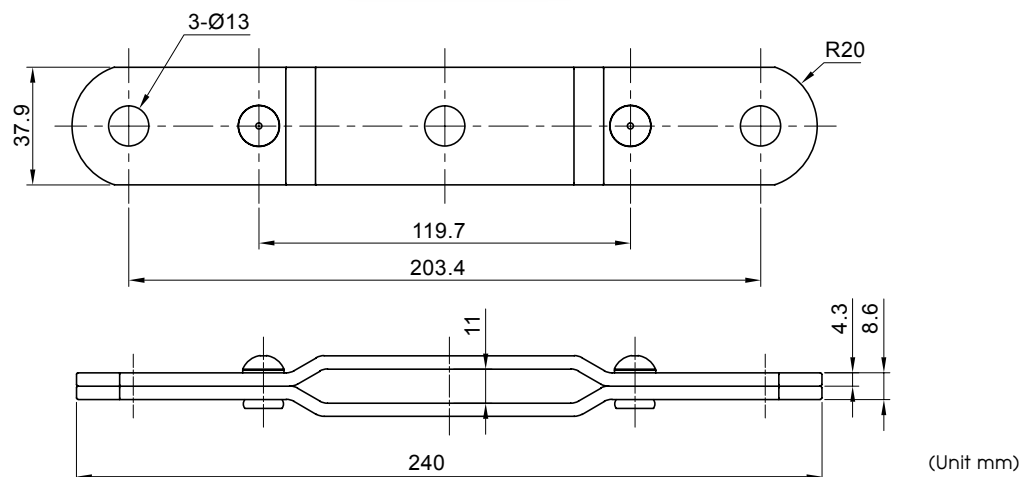


Item NO.	Description	A	B	C	D	E	F	G	H	I	J	K	L	M	Material	Surface Finishing
501721002	X-348 Load Bar Kit with Bush and Spherical Washer	152.9	76.78	10.7	60	41	15.5	24	50.75	213	10.3	43.7	25	38.1	FCD45	Anti-Rust Oil
501731003	X-458 Load Bar Kit with Bush and Spherical Washer	204.5	107.25	19.5	70.5	44.25	17.5	27.07	66	279.5	19	47.54	29.54	46.21	FCD45	Anti-Rust Oil
501741008	X-678 Load Bar Kit with Bush and Spherical Washer	304.8	152.4	25.4	81	52.4	20.6	32	63.5	378	12.5	55	32	60.3	FCD45	Anti-Rust Oil

• X-458 Load Bar (Stamping Type)

Item NO. 501738003

Material | SS400
Surface Finishing | Anti-Rust Oil

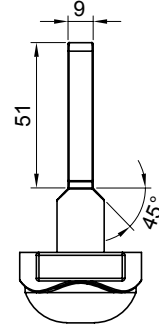
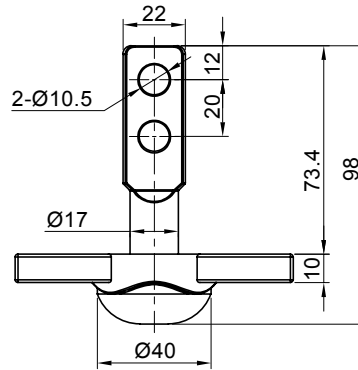
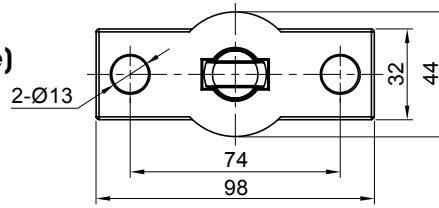


Overhead Trolley Second Hanger / Pendant

• 348 Rotating Star Pendant (Axle+Base)

Item NO. 50224112001

Material | SAE1045
Surface Finishing | Zinc Plated

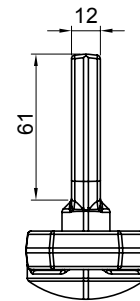
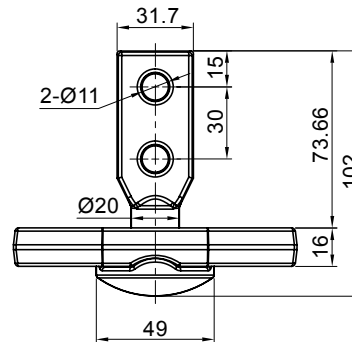
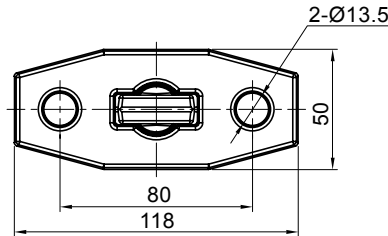


(Unit mm)

• 458 Rotating Star Pendant (Axle+Base)

Item NO. 50610540005

Material | SAE1045
Surface Finishing | Anti-Rust Oil



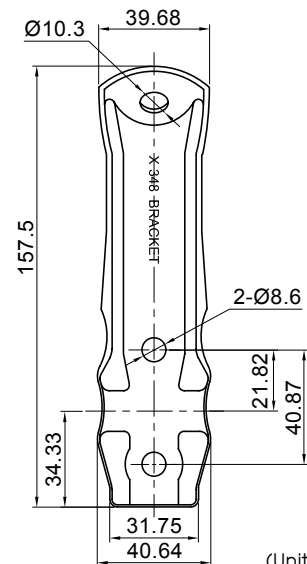
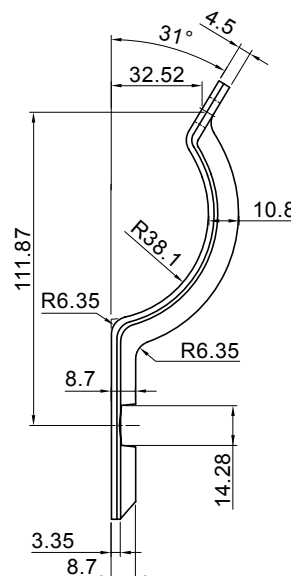
(Unit mm)

Special Forged Bracket

• SJ Bracket

Item NO. 5015221005

Material | SAE1035
Surface Finishing | Zinc Plated



(Unit mm)



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Email : service@challengehardware.com.tw