

Service Manual

SERVICE PARTS & DIAGRAMS

BENDPAK

HDSO14P

PRODUCT SKU

5175152

DRAWING Nº

5260583

CATEGORY

Four Post Lift

REV

Version W

DATE

08.29.2022



BendPak.

This guide is a troubleshooting reference used for maintaining and servicing your Bend Pak product. It provides comprehensive information on identifying serviceable parts and components and assists in troubleshooting problems and performing assembly /disassembly procedures.

BendPak, Inc. Corporate Office

1645 Lemonwood Drive
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Office Tel: 1-805-933-9970
Toll Free US/Canada: 1-800-253-2363
Fax: 1-805-933-9160
parts@bendpak.com

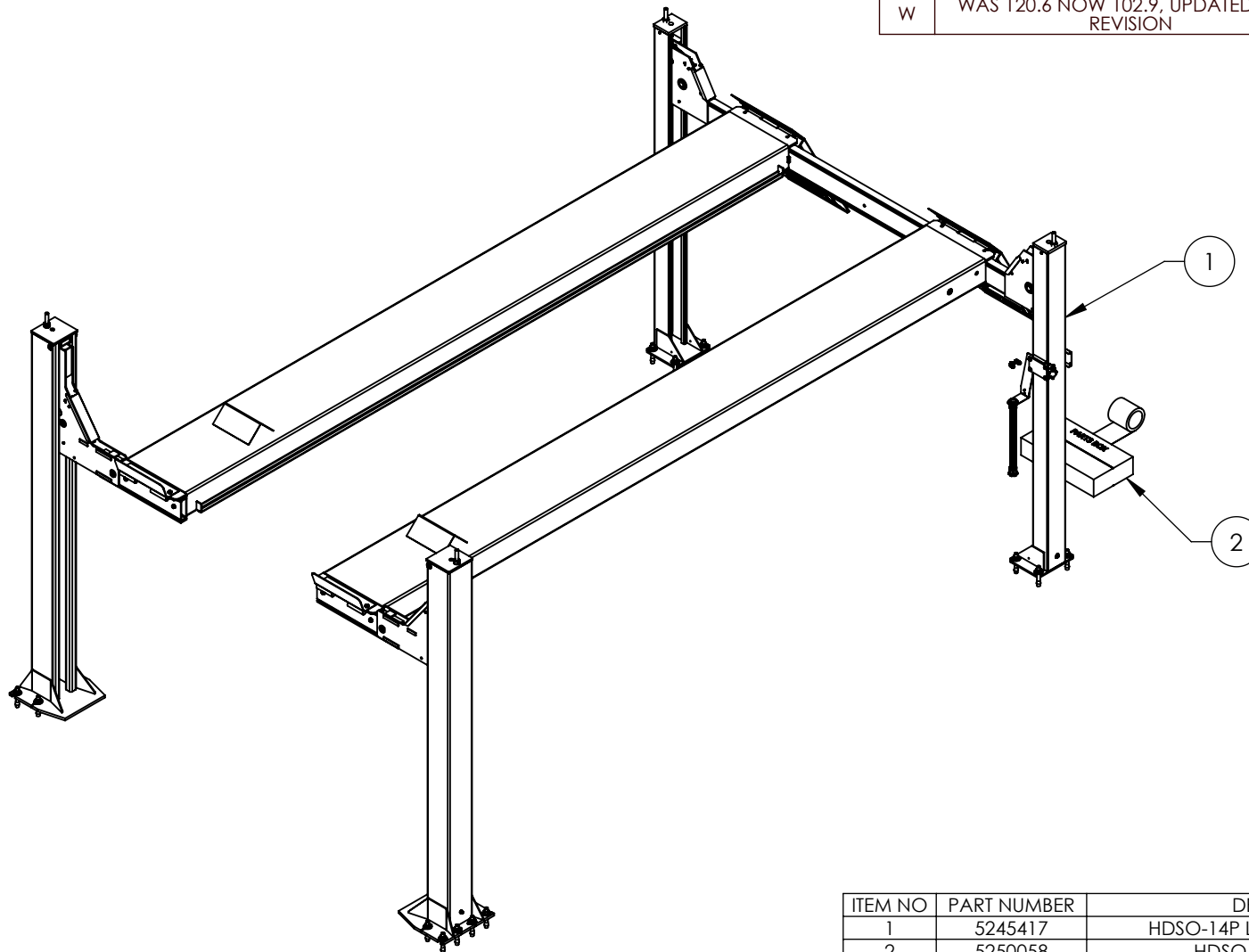
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sales@bendpak.com

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Ext. Toll Free US/Canada: 1-800-253-2363
Fax: 1-805-933-9160
bpkexports@bendpak.com

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
U	REPLACED LABELS WITH COLORS & GRAPHICS NOTE	09/27/2021	TM	01344
V	UPDATED BOM REVISION	05/24/2022	TM	01414
W	WAS 120.6 NOW 102.9, UPDATED BOM REVISION	08/11/2022	TM	01436

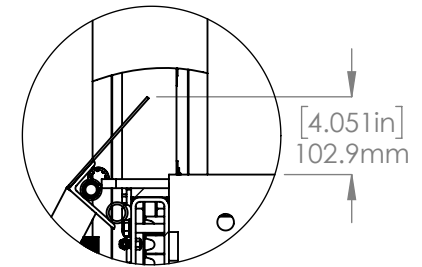
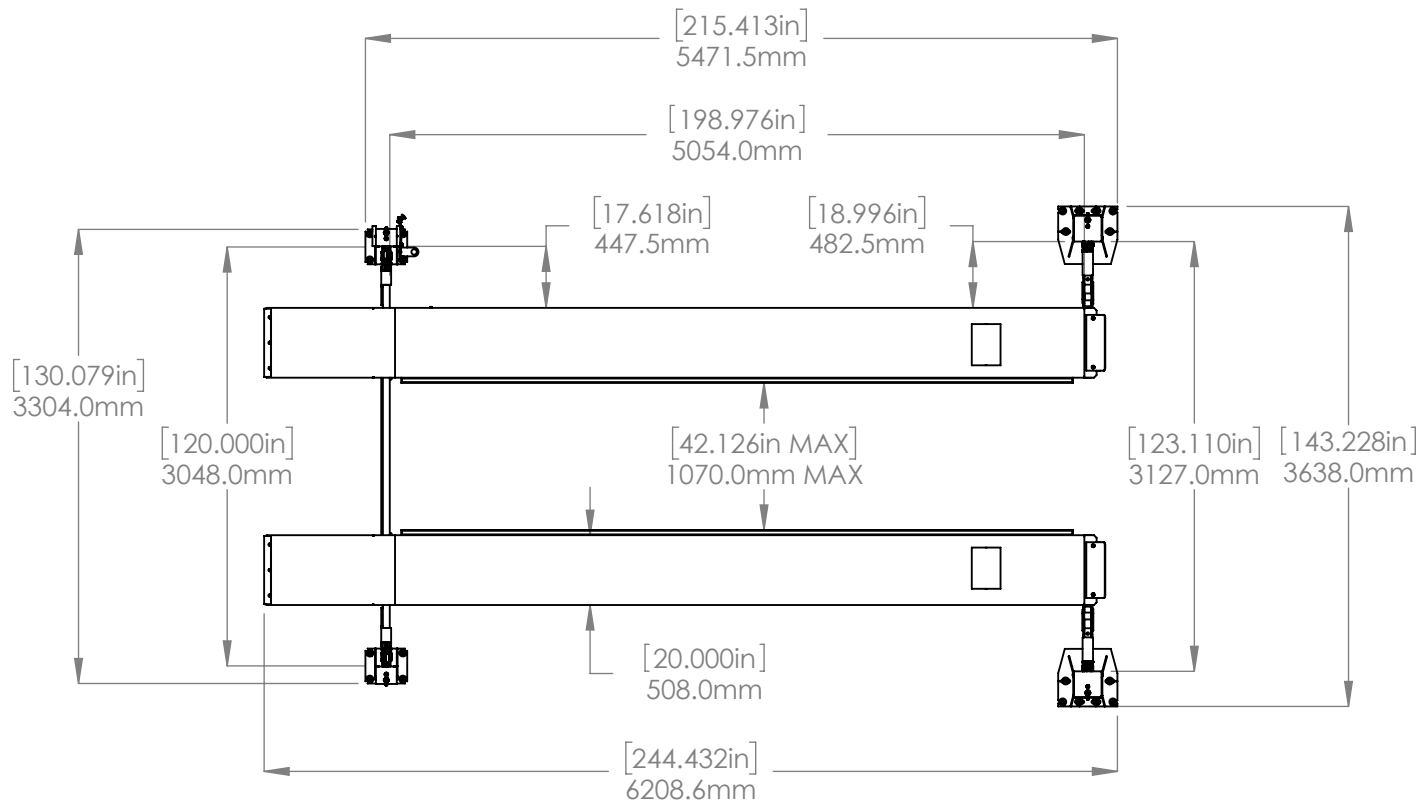


NOTE: UNLESS OTHERWISE SPECIFIED.

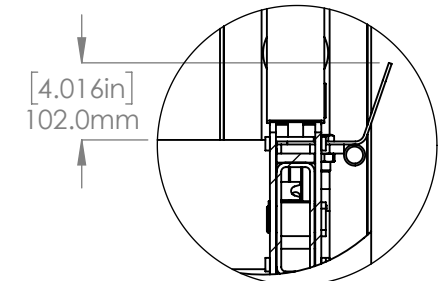
1. REFER TO MODEL FOR ADDITIONAL INFORMATION
2. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING
3. SEE COLORS & GRAPHICS FOR LABEL PLACEMENT

ITEM NO	PART NUMBER	DESCRIPTION		QTY	REV
1	5245417	HDSO-14P LIFT SUPERSTRUCTURE		1	Q
2	5250058	HDSO-14P PARTS BOX		1	J

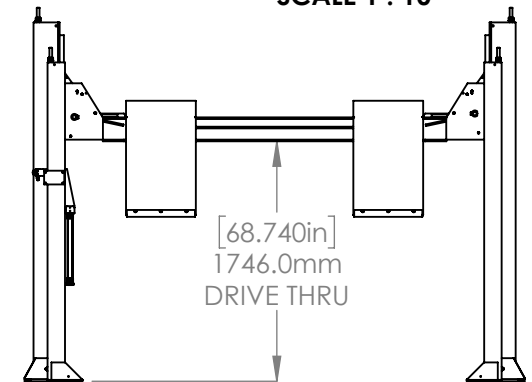
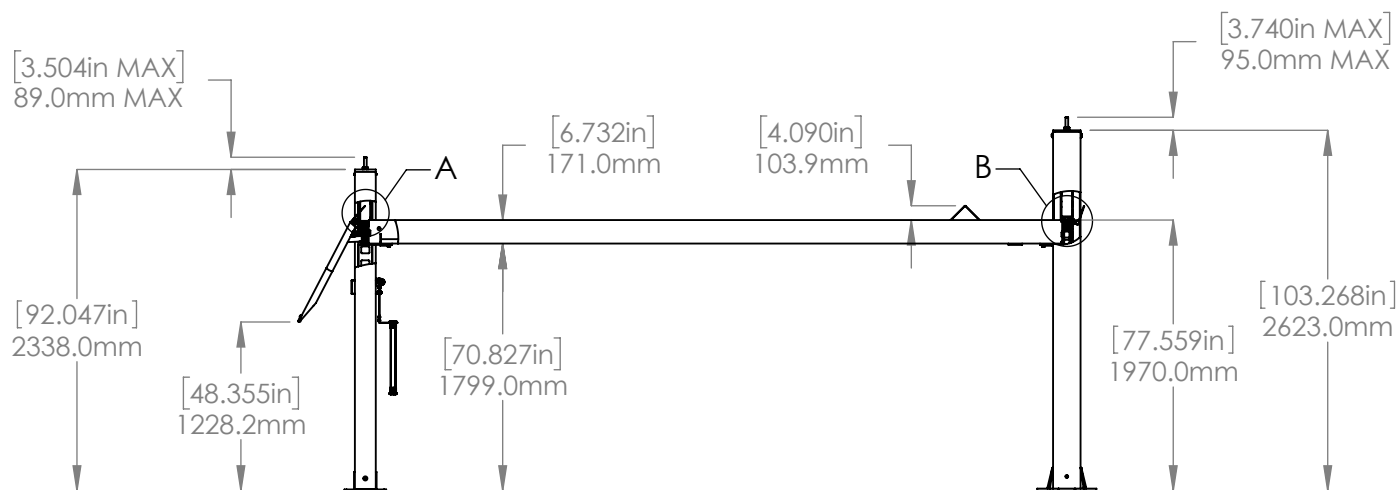
DO NOT SCALE DRAWING	NAME	DATE	 1645 LEMONWOOD DR. SANTA PAULA, CA 93060
	DRAWN	TM 09/23/2016	
	CHECKED	OR 08/16/2022	
DIMENSIONS ARE IN MM	THIRD ANGLE PROJECTION		TITLE:
 PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF BENDPAK INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.			HDSO-14P PRODUCTION LIFT VER D (CE CERT)
	SIZE	DWG. NO.	REV
	A	5260583	W
SCALE: 1:40			SHEET 1 OF 3



DETAIL A
SCALE 1 : 10



DETAIL B
SCALE 1 : 10



FRONT VIEW

BP BendPak.

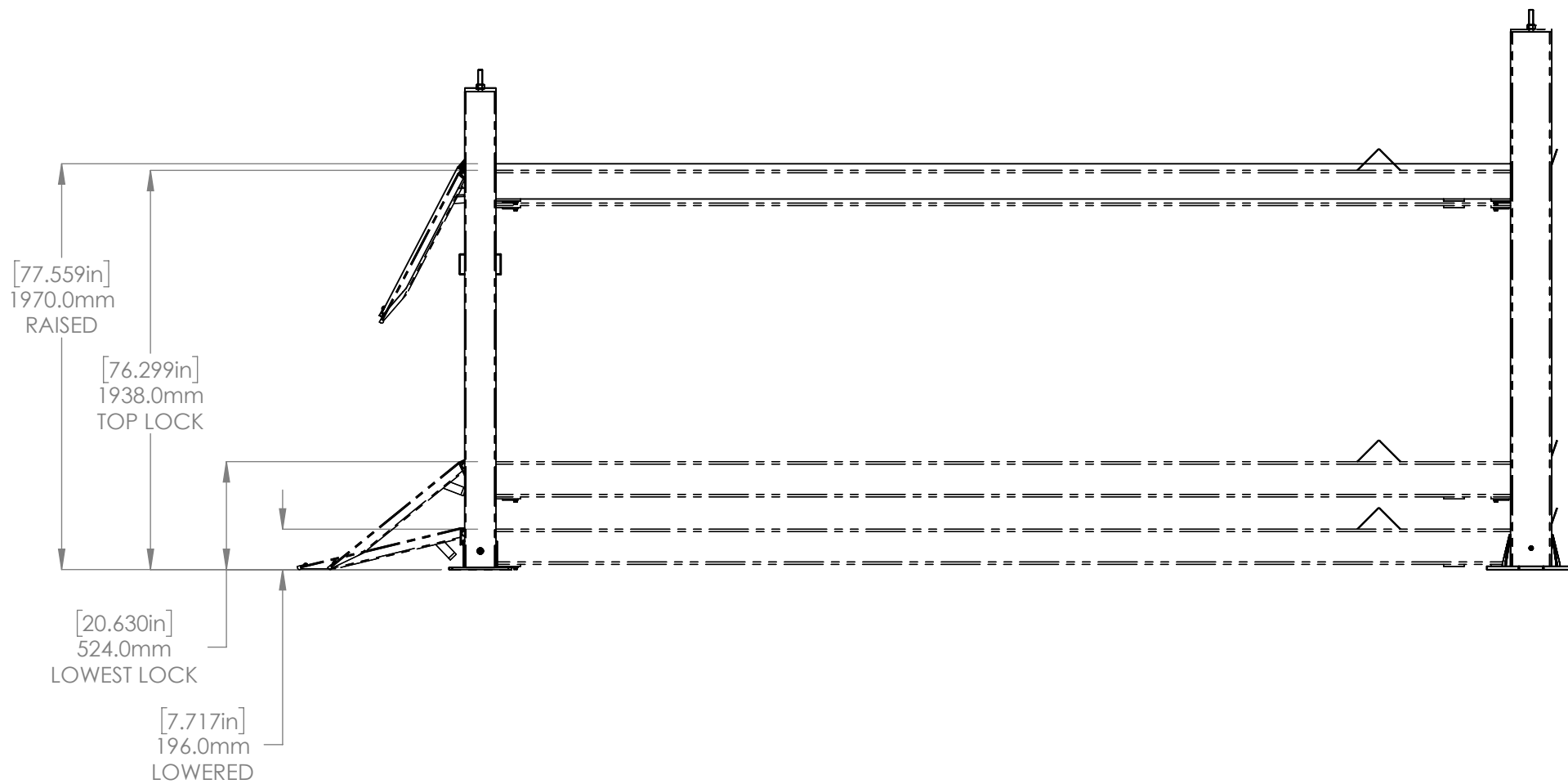
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

TITLE:
**HDSO-14P PRODUCTION
LIFT VER D (CE CERT)**

SIZE	DWG. NO.	REV
A	5260583	W

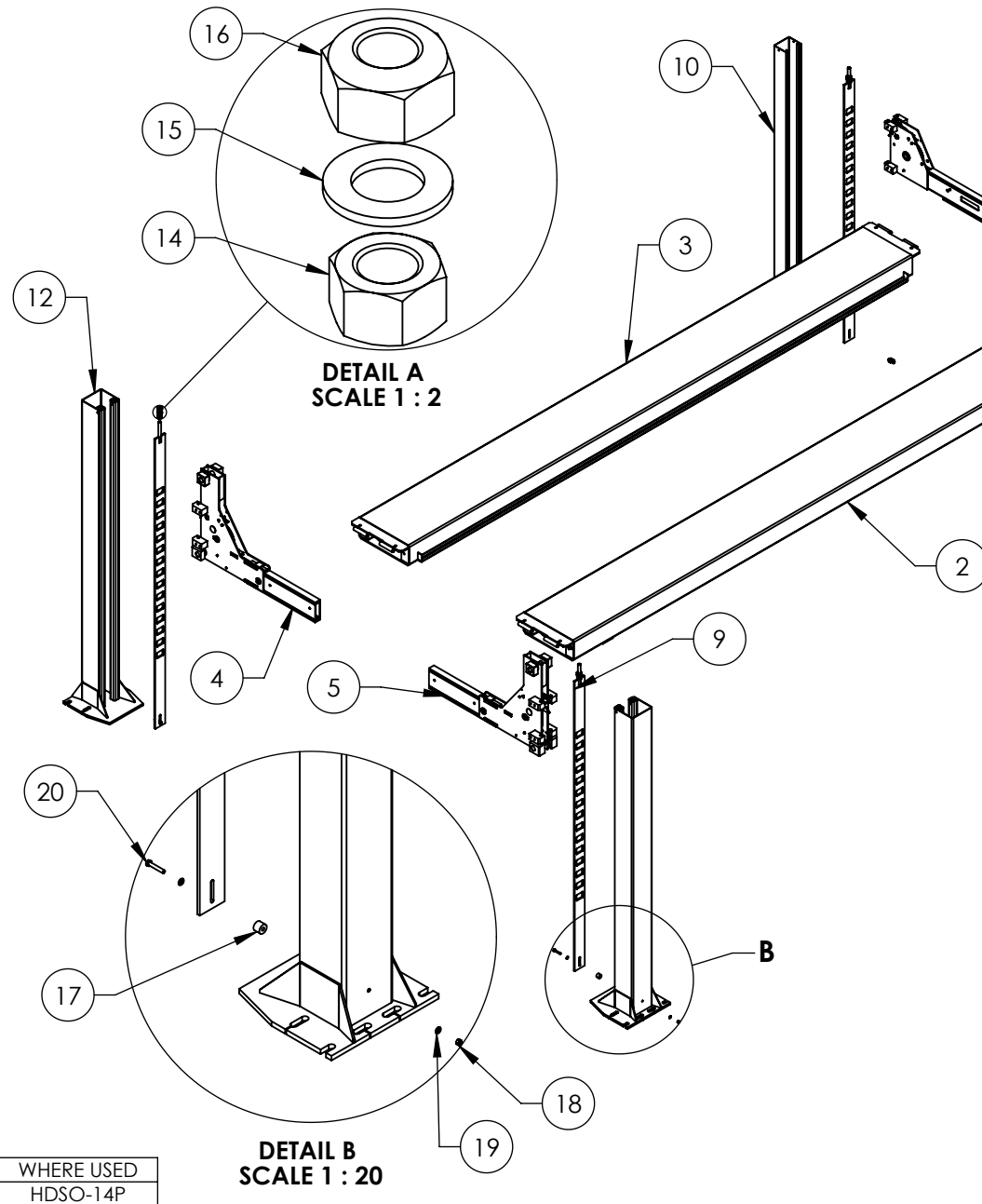
SCALE: 1:55

SHEET 2 OF 3



1. DIMENSIONS SHOWN ARE WITH THE LOCK LADDERS ADJUSTED ALL THE WAY UP

BP BendPak. 1645 LEMONWOOD DR. SANTA PAULA, CA 93060		
TITLE: HDSO-14P PRODUCTION LIFT VER D (CE CERT)		
SIZE	DWG. NO.	REV
A	5260583	W
SCALE: 1:30		SHEET 3 OF 3



WHERE USED
HDSO-14P

NOTE: UNLESS OTHERWISE SPECIFIED.

1. REFER TO MODEL FOR ADDITIONAL INFORMATION
2. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING
3. ASSEMBLE ITEMS AS SHOWN
4. THREAD M20 HARDWARE ONTO LADDER BOLTS AS SHOWN

NEXT ASSEMBLY
5260583

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
N	UPDATED BOM REVISION	08/23/2021	CA	01322
P	REPLACED 5215605 WITH 5216144, 5215469 WITH 5216143, AND 5215464 WITH 5216142	05/24/2022	TM	01414
Q	UPDATED BOM REVISION	08/11/2022	TM	01436

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5216144	HDSO-14 CROSSTUBE ASSEMBLY	1	A
2	5215097	HDSO-14P POWER SIDE RAMP ASSEMBLY	1	U
3	5215298	HDSO-14P OFF SIDE RAMP ASSEMBLY	1	K
4	5216143	HDSO-14 RIGHT FRONT CARRIAGE ASSEMBLY	1	A
5	5216142	HDSO-14 LEFT FRONT CARRIAGE ASSEMBLY	1	A
6	5600915	HDS/HDSO-14 SAFETY LADDER WELDMENT	2	B
7	5736988	HDSO-14 SAFETY LADDER	1	C
8	5530196	THREADED ROD M20 x 2.5 x 175	1	A
9	5601112	HDSO-14 SAFETY LADDER WELDMENT	1	C
10	5620605	HDS-14 POST WELDMENT	1	A
11	5620606	HDS-14 POWER SIDE POST WELDMENT	1	A
12	5601150	HDSO-14 POST WELDMENT	2	A
13	5215104	D4-12, HD/HDS/HDSO-14 DRIVE UP RAMP ASSEMBLY	2	E
14	5535303	NUT M20 x 2.5	4	-
15	5545343	WASHER, M20 FLAT	4	-
16	5535017	NUT M20 x 2.5 NL	4	-
17	5746384	HDS-14 SPACER, SAFETY LADDER, 23.5mm LG	2	A
18	5535013	NUT M10 x 1.5 NL	4	-
19	5545341	WASHER M10 x Ø20 FLAT	8	-
20	5530217	HHB M10 x 1.5 x 58	2	A
21	5746382	D4-12, HDS-14 SPACER, SAFETY LADDER, 15mm LG	2	A
22	5530167	HHB M10 x 1.5 x 45mm	2	-

DO NOT SCALE DRAWING

DIMENSIONS ARE IN MM



NAME	DATE
DRAWN TM	09/23/2016
CHECKED OR	08/16/2022

THIRD ANGLE PROJECTION



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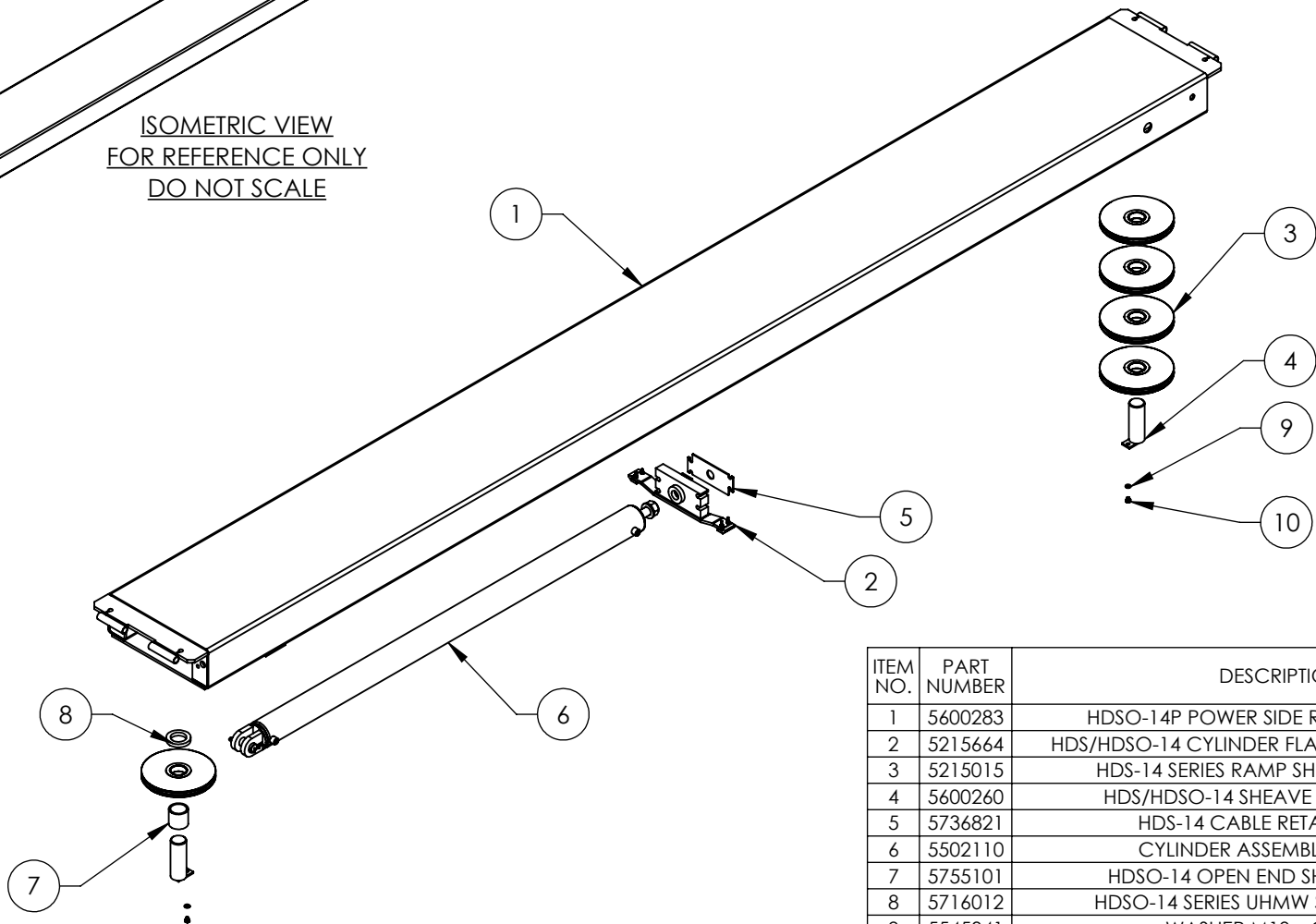
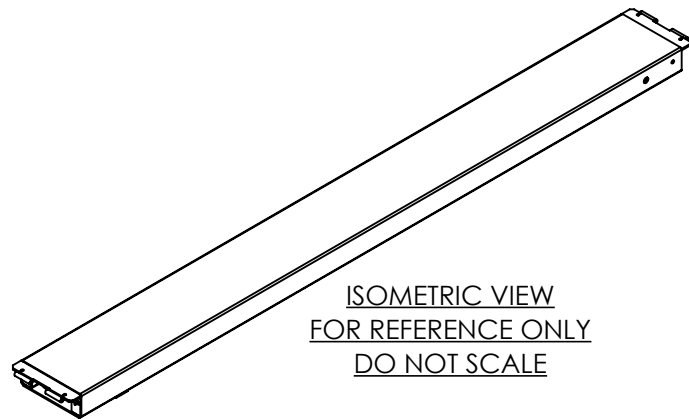
BendPak
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

TITLE: HDSO-14P LIFT
SUPERSTRUCTURE

SIZE	DWG. NO.	REV
A	5245417	Q

SCALE: 1:50

SHEET 1 OF 1



REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
R	UPDATED BOM REVISION	03/15/2018	TM	00927
T	UPDATED BOM REVISION	11/05/2020	CA	01227
U	REPLACED (1) 5600261 WITH 5600260, UPDATED BOM REVISION	08/23/2021	CA	01322

ITEM NO.	PART NUMBER	DESCRIPTION	QTY	REV
1	5600283	HDSO-14P POWER SIDE RAMP WELDMENT	1	E
2	5215664	HDS/HDSO-14 CYLINDER FLANGE ARM ASSEMBLY	1	C
3	5215015	HDS-14 SERIES RAMP SHEAVE ASSEMBLY	5	C
4	5600260	HDS/HDSO-14 SHEAVE PIN WELDMENT	2	C
5	5736821	HDS-14 CABLE RETAINER PLATE	1	A
6	5502110	CYLINDER ASSEMBLY Ø3.5 x 70	1	K
7	5755101	HDSO-14 OPEN END SHEAVE SPACER	1	B
8	5716012	HDSO-14 SERIES UHMW SHEAVE SPACER	1	B
9	5545341	WASHER M10 x Ø20 FLAT	2	--
10	5530281	HHB M10 x 1.5 x 10	2	--

WHERE USED
HDSO-14P

NOTE: UNLESS OTHERWISE SPECIFIED.

1. REFER TO MODEL FOR ADDITIONAL INFORMATION
2. VERIFY CYLINDER PORTS AND CAPPED WITH 3/8" NPT STEEL PLUGS
3. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING
4. ASSEMBLE ITEMS AS SHOWN

NEXT ASSEMBLY
5245417

DO NOT SCALE DRAWING

DIMENSIONS ARE IN MM



NAME	DATE
DRAWN GJZ	11/17/2008
CHECKED OR	09/15/2021

THIRD ANGLE PROJECTION



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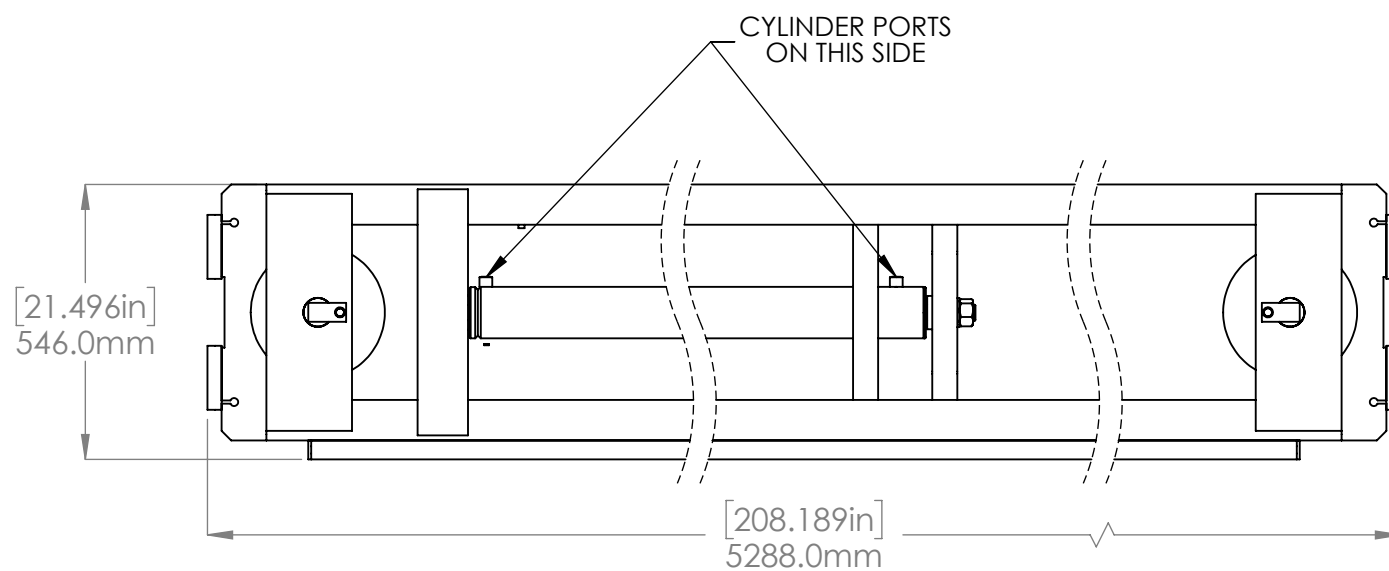
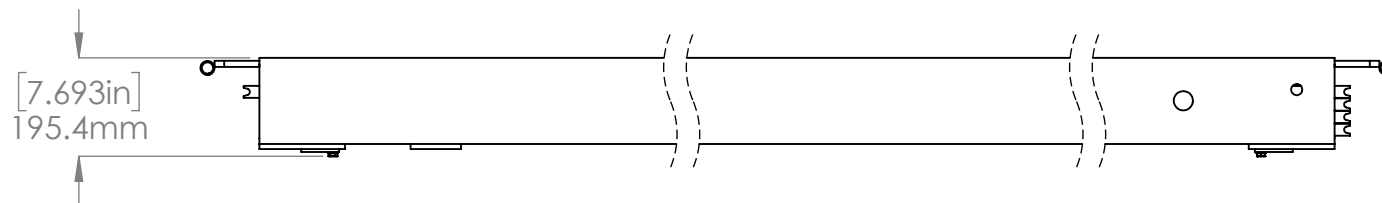
BendPak
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

TITLE: HDSO-14P POWER
SIDE RAMP ASSEMBLY

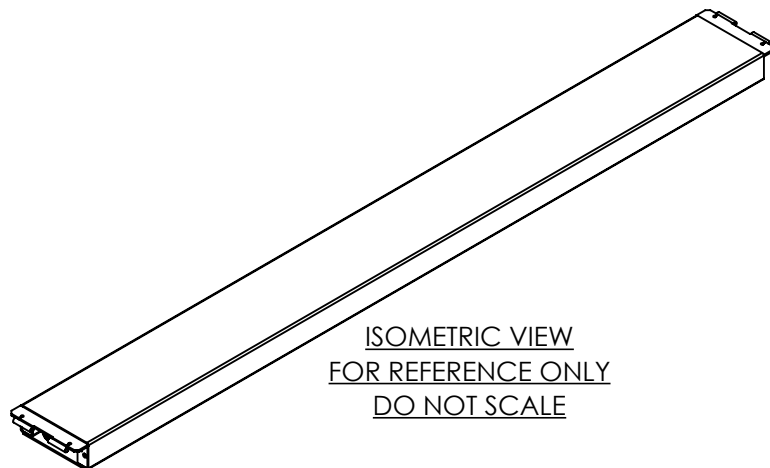
SIZE DWG. NO. REV
A 5215097 U

SCALE: 1:25

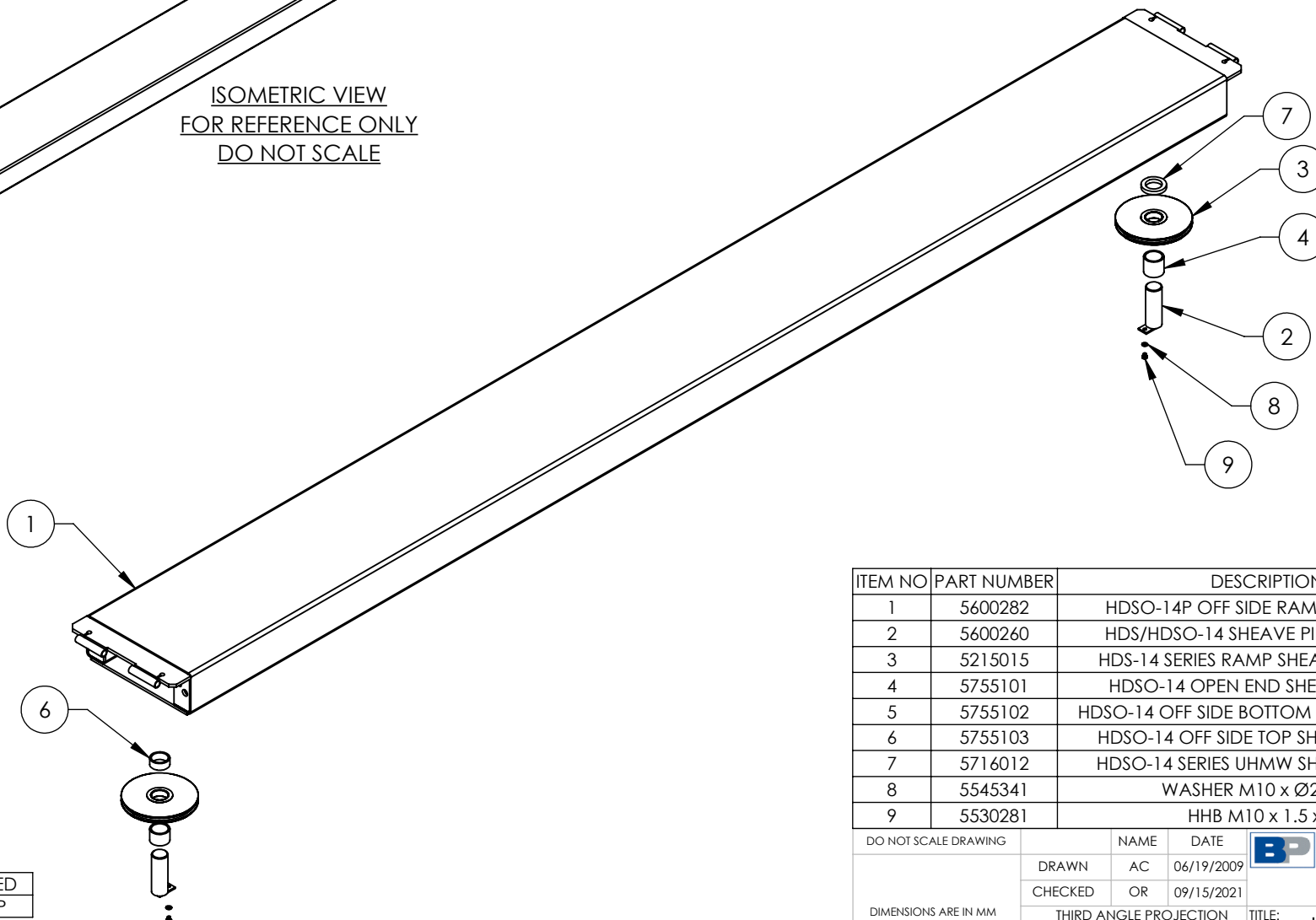
SHEET 1 OF 2



BP BendPak. 1645 LEMONWOOD DR. SANTA PAULA, CA 93060		
TITLE: HDSO-14P POWER SIDE RAMP ASSEMBLY		
SIZE	DWG. NO.	REV
A	5215097	U
SCALE: 1:15		SHEET 2 OF 2



ISOMETRIC VIEW
FOR REFERENCE ONLY
DO NOT SCALE



WHERE USED
HDSO-14P

NOTE: UNLESS OTHERWISE SPECIFIED.

1. REFER TO MODEL FOR ADDITIONAL INFORMATION
2. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING
3. ASSEMBLE ITEMS AS SHOWN

NEXT ASSEMBLY
5245417

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
H	REMOVED 5550026	10/19/2015	TM	00724
H-001	UPDATED NEXT ASSEMBLY	09/26/2016	TM	00782
J	UPDATED BOM REVISION	12/27/2017	TM	00909
K	REPLACED (1) 5600261 WITH 5600260, UPDATED BOM REVISION	08/23/2021	CA	01322

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5600282	HDSO-14P OFF SIDE RAMP WELDMENT	1	E
2	5600260	HDS/HDSO-14 SHEAVE PIN WELDMENT	2	C
3	5215015	HDS-14 SERIES RAMP SHEAVE ASSEMBLY	2	C
4	5755101	HDSO-14 OPEN END SHEAVE SPACER	1	B
5	5755102	HDSO-14 OFF SIDE BOTTOM SHEAVE SPACER	1	A
6	5755103	HDSO-14 OFF SIDE TOP SHEAVE SPACER	1	A
7	5716012	HDSO-14 SERIES UHMW SHEAVE SPACER	1	B
8	5545341	WASHER M10 x Ø20 FLAT	2	--
9	5530281	HHB M10 x 1.5 x 10	2	--

DO NOT SCALE DRAWING

DIMENSIONS ARE IN MM



NAME	DATE
DRAWN AC	06/19/2009
CHECKED OR	09/15/2021

THIRD ANGLE PROJECTION

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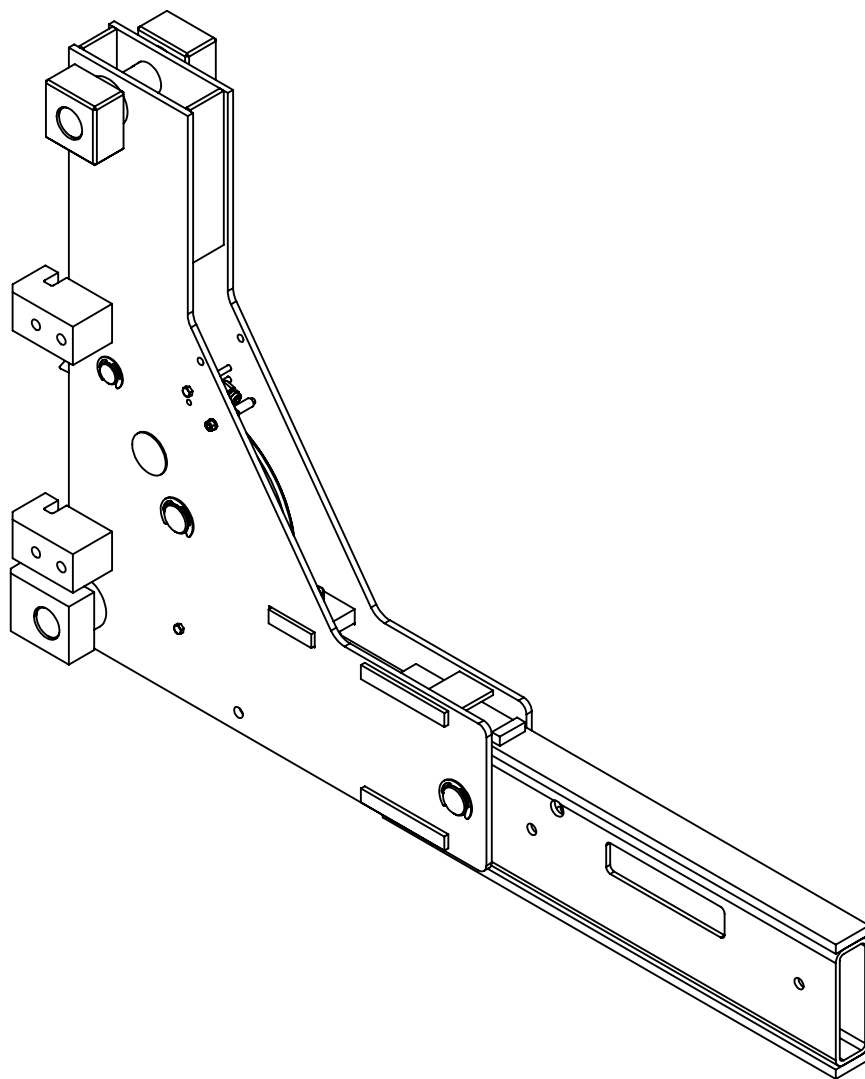
BendPak
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

TITLE: HDSO-14P OFF SIDE
RAMP ASSEMBLY

SIZE DWG. NO. REV
A 5215298 K

SCALE: 1:22

SHEET 1 OF 1



WHERE USED
HDSO-14P
HDSO-14AX

NOTE: UNLESS OTHERWISE SPECIFIED.

1. REFER TO MODEL FOR ADDITIONAL INFORMATION
2. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING
3. ASSEMBLE ITEMS AS SHOWN

NEXT ASSEMBLY
5245416
5245417

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
A	PRODUCTION RELEASE, DERIVED FROM 5215464	05/11/2022	TM	01414

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5601817	HDSO-14 SHORT CROSSTUBE LEFT WELDMENT	1	A
2	5746080	HDSO-14 SAFETY PIN	1	D
3	5600044	4 POST LIGHT DUTY SLACK SAFETY WELDMENT	1	F
4	5575380	D4-12, HD/HDS/HDSO-14 SAFETY ROLLER	1	C
5	5716031	HDSO-14 POLYETHYLENE SLIDE BLOCK	4	D
6	5215013	HDS-14 CROSSTUBE SHEAVE ASSEMBLY	1	B
7	5601110	HDSO-14 LEFT CARRIAGE WELDMENT	1	E
8	5600173	D4-12, HD/HDS/HDSO-14 SHEAVE PIN WELDMENT	2	G
9	5540275	E RING Ø25mm OD DIN 6799 0250	4	-
10	5530694	HHB M6 x 1.0 x 75	3	-
11	5545005	WASHER, M6 x 12mm FLAT	2	-
12	5535112	NUT M6 x 1.0	3	-
13	5540065	SPRING Ø13mm x 90mm, SLACK SAFETY	1	A
14	5540002	E RING Ø1.375" OD TRUARC X5133-137	2	-
15	5505625	FEMALE ROD END M6 x 33	1	-
16	5502195	AIR CYLINDER, Ø19mm x 25 STROKE	1	-
17	5550087	FTG ELB -04 COMP x -02 NPT	1	-
18	5530756	HHB M6 x 1.0 x 25mm	1	-
19	5505030	PUSH-ON CLIP Ø10mm SS	1	-
20	5530090	SSS M20 x 2.5 x 50L	1	-
21	5600760	D4-12, HD/HDS LIGHT DUTY SAFETY WELDMENT	1	C
22	5716019	HDSO-14 BUTTON SLIDE	2	B
23	5716022	HDSO-14 CARRIAGE ROLLER BEARING	2	A
24	5755136	AIR CYLINDER SPACER 12mm	1	A
25	5755137	AIR CYLINDER SPACER 25mm	1	A
26	5535357	NUT M6 x 1.0 NL	1	-
27	5716038	HDSO-14 POLYETHYLENE SLIDE BLOCK, TOP	2	B
28	5716039	HDSO-14 POLYETHYLENE SLIDE BLOCK, BOTTOM	2	B
29	5755159	HDSO-14 CROSSTUBE SPACER Ø16 x Ø10 x 52	1	A
30	5535230	NUT 1/4-28 JN	1	-

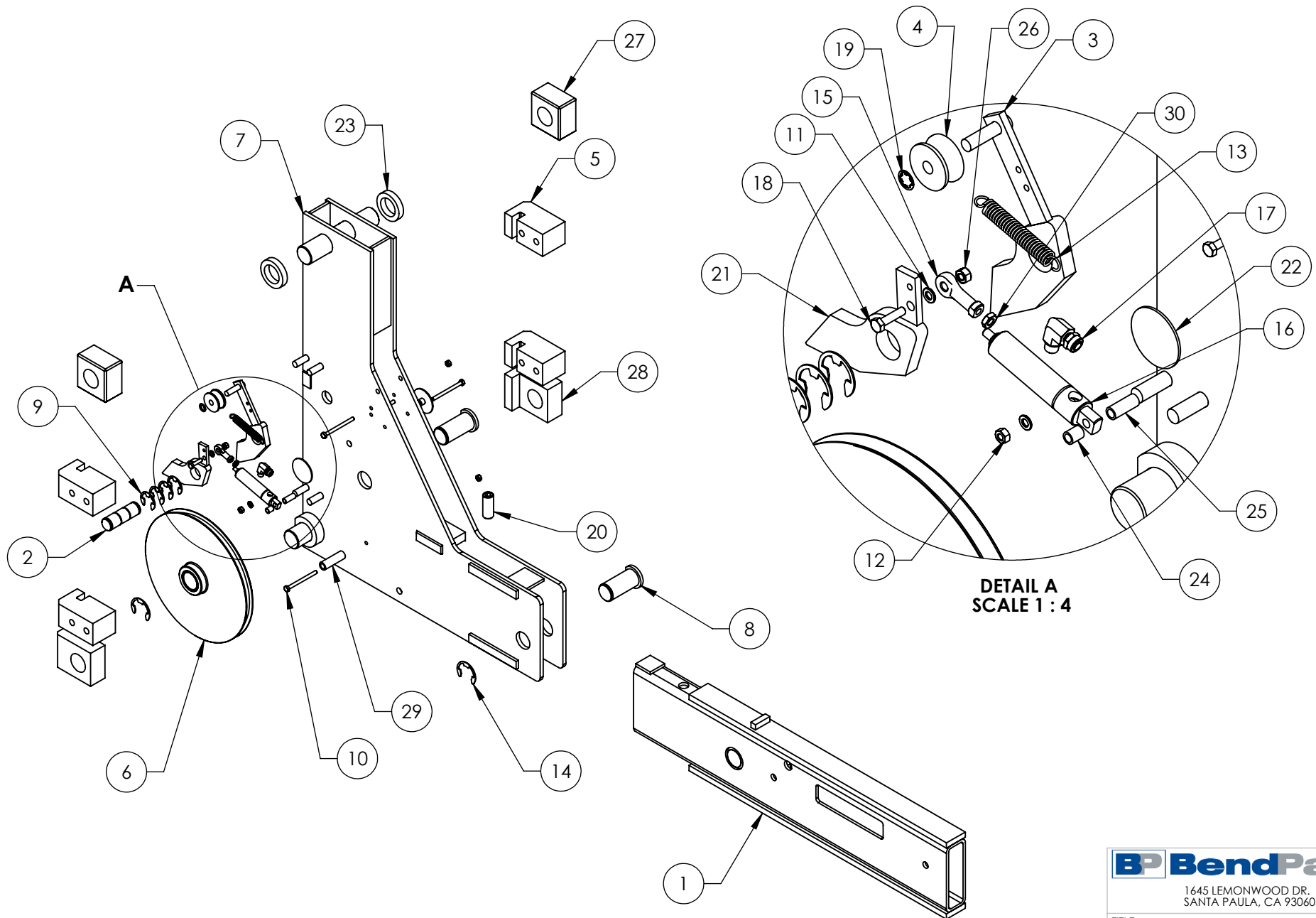
DO NOT SCALE DRAWING

DIMENSIONS ARE IN MM



NAME	DATE
DRAWN TM	05/11/2022
CHECKED	
THIRD ANGLE PROJECTION	
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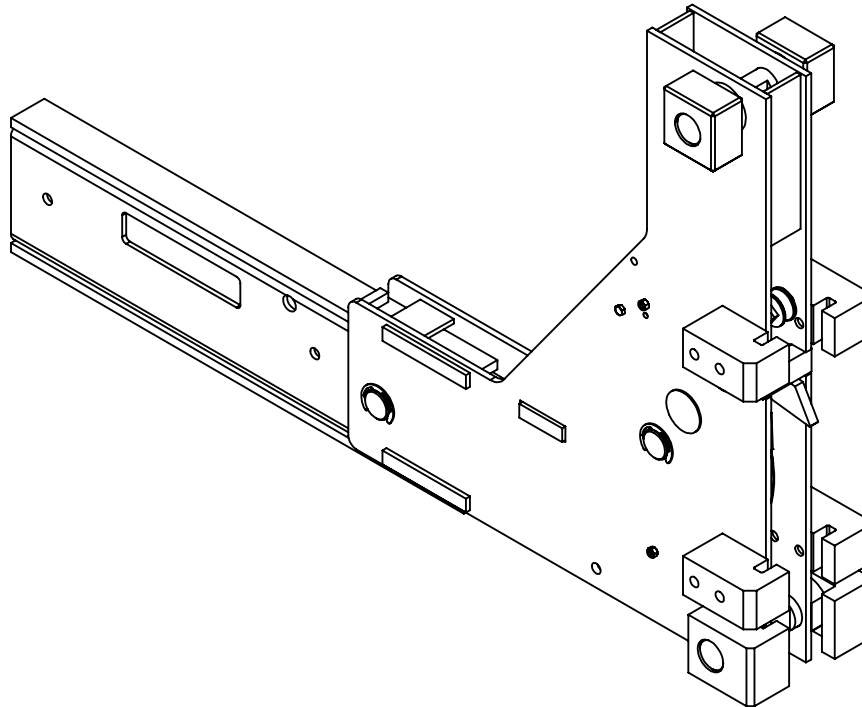
		1645 LEMONWOOD DR. SANTA PAULA, CA 93060	
TITLE:		HDSO-14 LEFT FRONT CARRIAGE ASSEMBLY	
SIZE	DWG. NO.	REV	
A	5216142	A	
SCALE: 1:8		SHEET 1 OF 2	



DETAIL A
SCALE 1 : 4

BP BendPak. 1645 LEMONWOOD DR. SANTA PAULA, CA 93060		
TITLE: HDSO-14 LEFT FRONT CARRIAGE ASSEMBLY		
SIZE	DWG. NO.	REV
A	5216142	A
SCALE: 1:10		SHEET 2 OF 2

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
A	PRODUCTION RELEASE, DERIVED FROM 5215469	05/11/2022	TM	01414



ITEM NO.	PART NUMBER	DESCRIPTION	QTY	REV
1	5601818	HDSO-14 SHORT CROSSTUBE RIGHT WELDMENT	1	A
2	5600044	4 POST LIGHT DUTY SLACK SAFETY WELDMENT	1	F
3	5575380	D4-12, HD/HDS/HDSO-14 SAFETY ROLLER	1	C
4	5716031	HDSO-14 POLYETHYLENE SLIDE BLOCK	4	D
5	5215013	HDS-14 CROSSTUBE SHEAVE ASSEMBLY	1	B
6	5601111	HDSO-14 RIGHT CARRIAGE WELDMENT	1	E
7	5746080	HDSO-14 SAFETY PIN	1	D
8	5600173	D4-12, HD/HDS/HDSO-14 SHEAVE PIN WELDMENT	2	G
9	5540275	E RING Ø25mm OD DIN 6799 0250	4	-
10	5530694	HHB M6 x 1.0 x 75	3	-
11	5545005	WASHER, M6 x 12mm FLAT	2	-
12	5535112	NUT M6 x 1.0	1	-
13	5540065	SPRING Ø13mm x 90mm, SLACK SAFETY	1	A
14	5540002	E RING Ø1.375" OD TRUARC X5133-137	2	-
15	5505625	FEMALE ROD END M6 x 33	1	-
16	5502195	AIR CYLINDER, Ø19mm x 25 STROKE	1	-
17	5550087	FTG ELB -04 COMP x -02 NPT	1	-
18	5505030	PUSH-ON CLIP Ø10mm SS	1	-
19	5530090	SSS M20 x 2.5 x 50L	1	-
20	5530756	HHB M6 x 1.0 x 25mm	1	-
21	5600760	D4-12, HD/HDS LIGHT DUTY SAFETY WELDMENT	1	C
22	5716019	HDSO-14 BUTTON SLIDE	2	B
23	5716022	HDSO-14 CARRIAGE ROLLER BEARING	2	A
24	5755136	AIR CYLINDER SPACER 12mm	1	A
25	5755137	AIR CYLINDER SPACER 25mm	1	A
26	5535357	NUT M6 x 1.0 NL	3	-
27	5716039	HDSO-14 POLYETHYLENE SLIDE BLOCK, BOTTOM	2	B
28	5716038	HDSO-14 POLYETHYLENE SLIDE BLOCK, TOP	2	B
29	5755159	HDSO-14 CROSSTUBE SPACER Ø16 x Ø10 x 52	1	A
30	5535230	NUT 1/4-28 JN	1	-

WHERE USED
HDSO-14P
HDSO-14AX

NOTE: UNLESS OTHERWISE SPECIFIED.

- SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING
- ASSEMBLE ITEMS AS SHOWN

NEXT ASSEMBLY
5245416
5245417

DO NOT SCALE DRAWING

DIMENSIONS ARE IN MM



NAME	DATE
DRAWN TM	05/11/2022
CHECKED	

THIRD ANGLE PROJECTION



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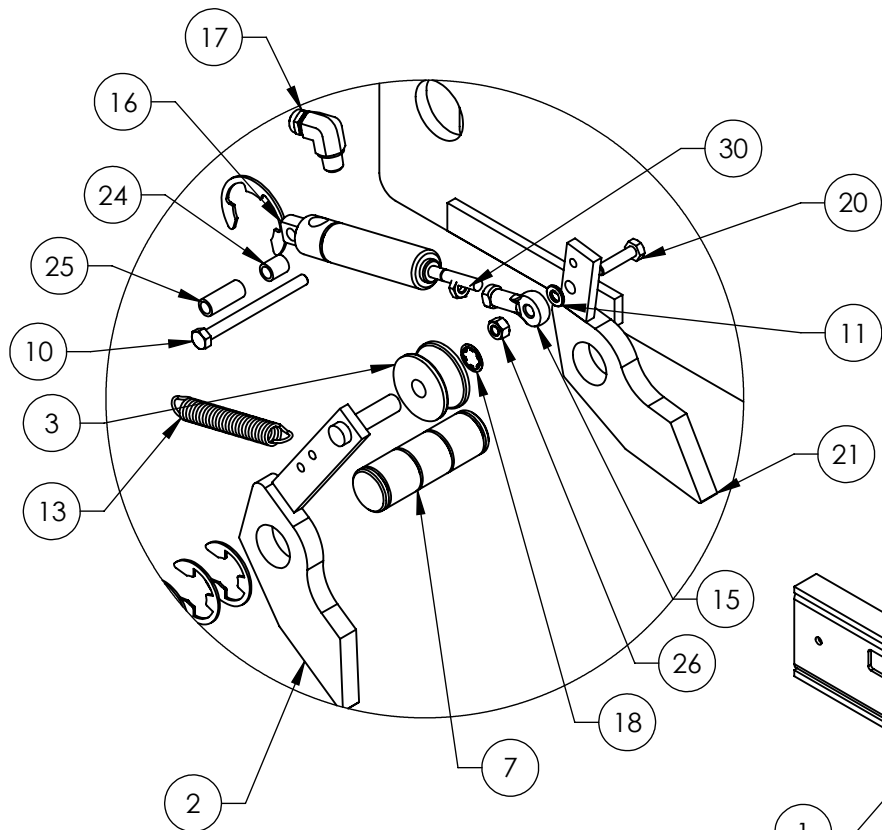
BendPak
1645 LEMONWOOD DR. SANTA PAULA, CA 93060

TITLE: HDSO-14 RIGHT FRONT CARRIAGE ASSEMBLY

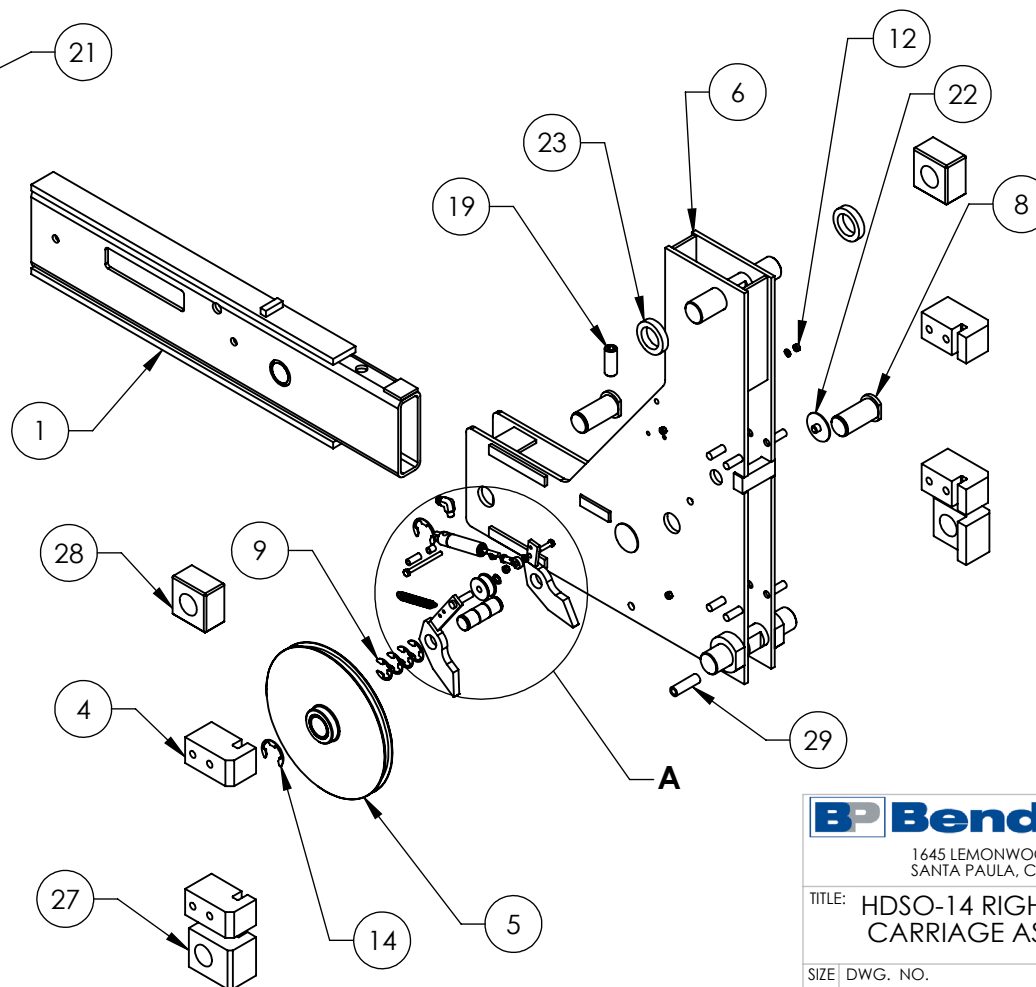
SIZE	DWG. NO.	REV
A	5216143	A

SCALE: 1:8

SHEET 1 OF 2



DETAIL A
SCALE 1 : 4

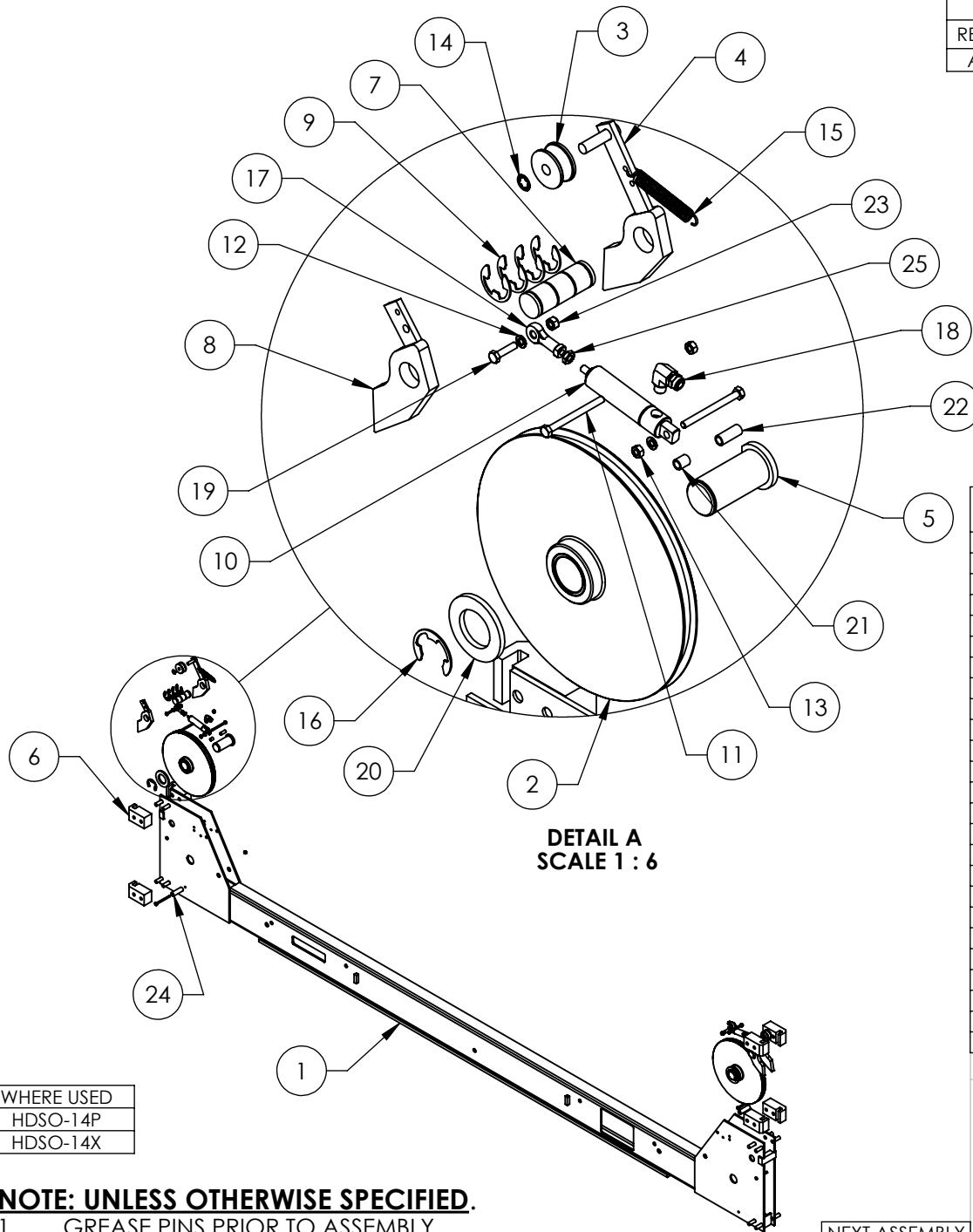


1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

TITLE: HDSO-14 RIGHT FRONT
CARRIAGE ASSEMBLY

SIZE	DWG. NO.	REV
A	5216143	A
SCALE: 1:12		SHEET 2 OF 2

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
A	PRODUCTION RELEASE, DERIVED FROM 5215605	04/29/2022	TM	01414



**DETAIL A
SCALE 1 : 6**

WHERE USED

HDSO-14P
HDSO-14X

NOTE: UNLESS OTHERWISE SPECIFIED.

1. GREASE PINS PRIOR TO ASSEMBLY
2. ASSEMBLE ITEMS AS SHOWN
3. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING

NEXT ASSEMBLY
5245416
5245417

ITEM NO.	PART NUMBER	DESCRIPTION	QTY	REV
1	5601816	HDSO-14 CROSSTUBE WELDMENT	1	A
2	5215013	HDS-14 CROSSTUBE SHEAVE ASSEMBLY	2	B
3	5575380	D4-12, HD/HDS/HDSO-14 SAFETY ROLLER	2	C
4	5600044	4 POST LIGHT DUTY SLACK SAFETY WELDMENT	2	F
5	5600173	D4-12, HD/HDS/HDSO-14 SHEAVE PIN WELDMENT	2	G
6	5716005	D4-12, HD-7/7500/9/14/HDSO-14 POLYETHYLENE SLIDE BLOCK	8	M
7	5746008	D4-12, HD/HDS-7/7500/9/14, HDSO-14 SAFETY PIN	2	D
8	5600760	D4-12, HD/HDS LIGHT DUTY SAFETY WELDMENT	2	C
9	5540275	E RING Ø25mm OD DIN 6799 0250	8	-
10	5502195	AIR CYLINDER, Ø19mm x 25 STROKE	2	-
11	5530005	HHB M6 x 1 x 70	6	-
12	5545005	WASHER, M6 x 12mm FLAT	4	-
13	5535112	NUT M6 x 1.0	4	-
14	5505030	PUSH-ON CLIP Ø10mm SS	2	-
15	5540065	SPRING Ø13mm x 90mm, SLACK SAFETY	2	A
16	5540002	E RING Ø1.375" OD TRUARC X5133-137	2	-
17	5505625	FEMALE ROD END M6 x 33	2	-
18	5550087	FTG ELB -04 COMP x -02 NPT	2	-
19	5530756	HHB M6 x 1.0 x 25mm	2	-
20	5545032	WASHER M36 x 66 FLAT	2	-
21	5755136	AIR CYLINDER SPACER 12mm	2	A
22	5755137	AIR CYLINDER SPACER 25mm	2	A
23	5535357	NUT M6 x 1.0 NL	4	-
24	5755157	D4-12, HD-7/7500/9 CROSSTUBE SPACER Ø16 x Ø10 x 50	2	A
25	5535230	NUT 1/4-28 JN	2	-

DO NOT SCALE DRAWING

DIMENSIONS ARE IN MM



NAME	DATE
DRAWN TM	04/29/2022
CHECKED	

THIRD ANGLE PROJECTION



PROPRIETARY AND CONFIDENTIAL
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BendPak
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

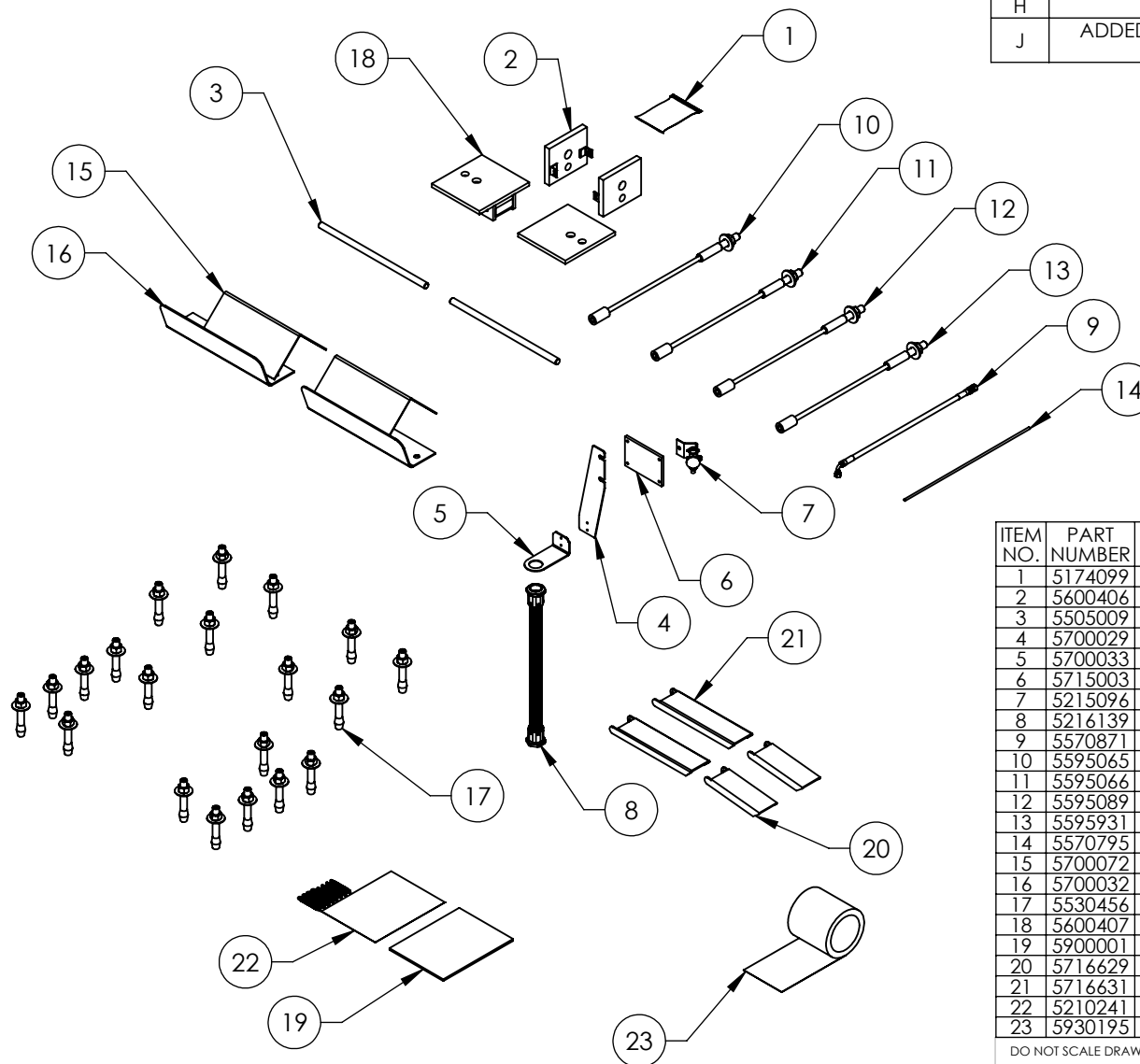
TITLE: HDSO-14 CROSSTUBE ASSEMBLY

SIZE DWG. NO. A 5216144 REV A

SCALE: 1:25

SHEET 1 OF 1

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
G	ADDED 5210241, REMOVED 5535011 AND 5545345, UPDATED BOM REVISIONS	07/21/2020	TM	01174
H	UPDATED BOM REVISION	08/19/2021	CA	01322
J	ADDED 5930195, REPLACED 5570050 WITH 5216139	05/04/2022	TM	01414 PRE A



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	REV
1	5174099	HDSO-14 PARTS BAG	1	F
2	5600406	HD/HDS-14 TOP PLATE WELDMENT	2	C
3	5505009	D4-12, HD/HDS-14 DRIVE UP RAMP PIN	2	D
4	5700029	HD-SERIES FLEX TUBE BRACKET PLATE	1	F
5	5700033	HD-SERIES FLEX TUBE ANGLE	1	E
6	5715003	POWER UNIT VIBRATION DAMPENER	1	B
7	5215096	PUSH BUTTON AIR ASSEMBLY	1	G
8	5216139	FLEX TUBE KIT, UP TO 2000mm	1	A
9	5570871	HYDRAULIC HOSE ASSEMBLY Ø6.4 x 4166mm	1	B
10	5595065	HDS/HDSO-14 CABLE ASSEMBLY Ø12 x 4100mm ST	1	E
11	5595066	HDS/HDSO-14 CABLE ASSEMBLY Ø12 x 5732mm ST	1	E
12	5595089	HDSO-14P/AX CABLE ASSEMBLY Ø12 x 11302mm ST	1	D
13	5595931	HDSO-14P/AX CABLE ASSEMBLY Ø12 x 9639mm ST	1	C
14	5570795	1/4" POLY-FLO TUBING	24000mm*	--
15	5700072	WHEEL CHOCK	2	B
16	5700032	TIRE STOP	2	D
17	5530456	AB 3/4" x 4 - 3/4"	20	--
18	5600407	HDSO-14 TOP PLATE WELDMENT	2	B
19	5900001	INSTALLATION MANUAL HDSO-14P/AX	1	--
20	5716629	HDS-14 CROSSTUBE COVER, PLASTIC	2	A
21	5716631	HDSO-14 CARRIAGE CLOSEOUT COVER, PLASTIC	2	A
22	5210241	4 POST LIGHT DUTY CE PARTS BAG	1	A
23	5930195	ANTI-SLIP TAPE, 6" x 24ft	1	--

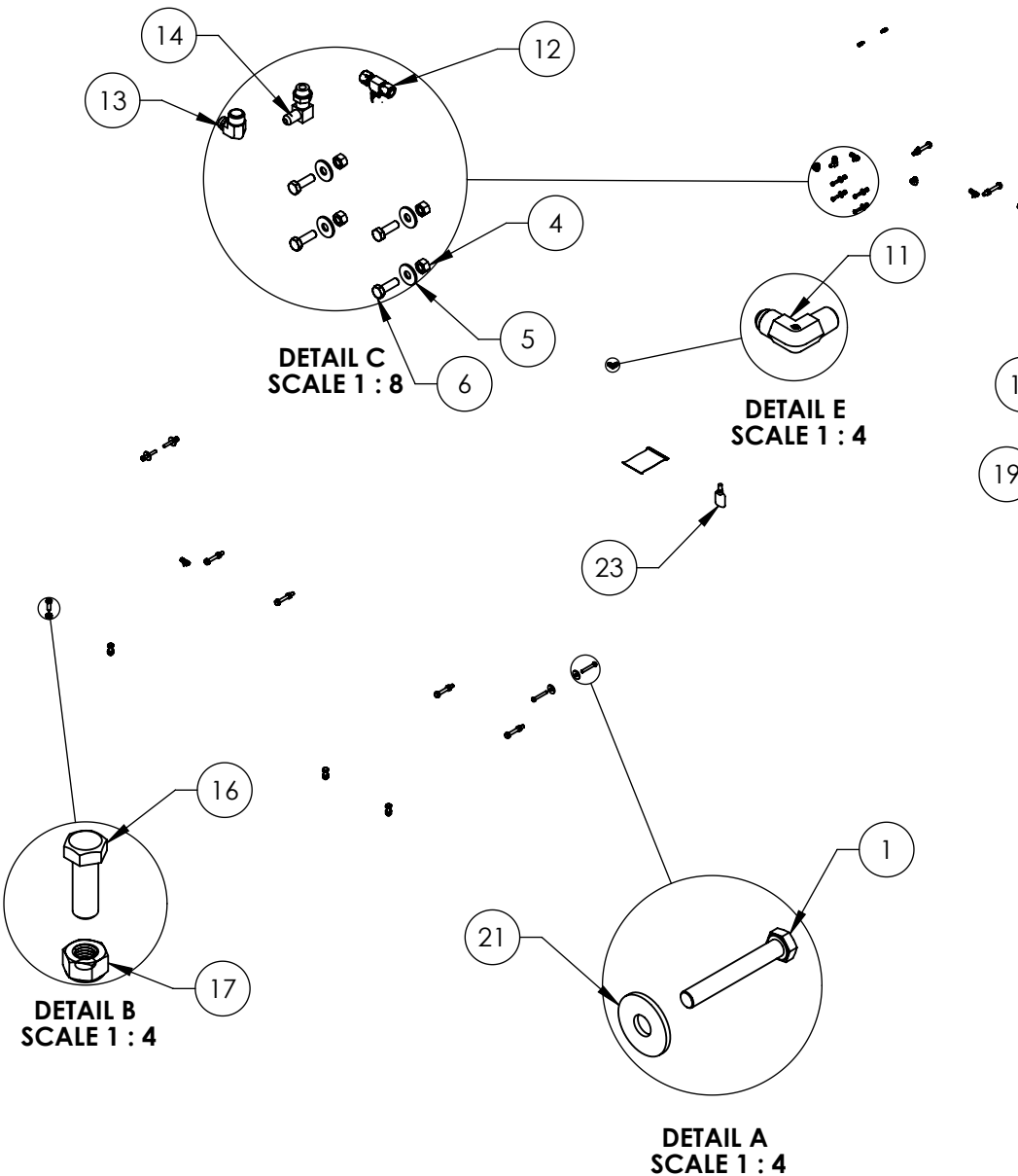
WHERE USED
HDSO-14P

NOTE: UNLESS OTHERWISE SPECIFIED.

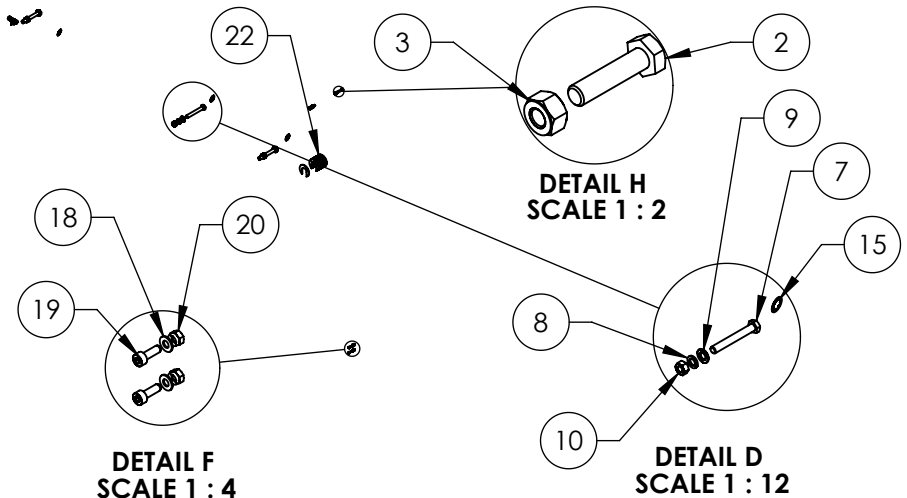
- SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING
- HOSES AND CABLES SHOWN IN REPRESENTATIONAL FORM ONLY
- (*)LENGTH FOR REFERENCE ONLY

NEXT ASSEMBLY
5260583

DO NOT SCALE DRAWING	NAME	DATE	BendPak 1645 LEMONWOOD DR. SANTA PAULA, CA 93060
DIMENSIONS ARE IN MM	DRAWN	TM 09/23/2016	
	CHECKED	OR 05/09/2022	
	THIRD ANGLE PROJECTION		TITLE:
			HDSO-14P PARTS BOX
	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF BENDPAK INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.		SIZE DWG. NO.
			A 5250058
			REV
			J
SCALE: 1:20			SHEET 1 OF 1



REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
D	REPLACED 5550004 WITH 5550089, 5550489 WITH 5550395, UPDATED NEXT ASSEMBLIES	10/29/2013	TM	00593
D-001	UPDATED NEXT ASSEMBLIES	09/26/2016	TM	00782
E	ADDED 5550025, 5550026, AND 5580012	12/11/2019	CA	01120
F	REMOVED 5550025 AND 5550026	08/19/2021	CA	01322



ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5530767	HHB M10 x 1.5 x 70	4	-
2	5530756	HHB M6 x 1.0 x 25mm	4	-
3	5535357	NUT M6 x 1.0 NL	4	-
4	5535001	NUT M8 x 1.25 NL	4	-
5	5545340	WASHER M8 x24 FLAT	4	-
6	5530010	HHB M8 x 1.25 x 25mm ZPL	4	-
7	5530009	HHB M12 x 1.75 x 90 CL8.8	8	-
8	5545201	WASHER, M12 SPRING LOCK	8	-
9	5545347	WASHER, M12 FLAT WASHER	8	-
10	5535354	NUT, M12 x1.75	8	-
11	5550106	FTG ELB -04JIC x 3/8" NPT	1	-
12	5550395	FTG TEE -04 COMP x -04 COMP x -04 COMP	3	-
13	5550089	FTG ELB -04 COMP x -06 NPT	2	-
14	5550008	FTG ELB -04 JIC -06L ORB	1	-
15	5505032	ROTOR CLIP Ø18mm SS	4	-
16	5530107	HHB M14 x 2.0 x 40	4	-
17	5535107	NUT M14 x 2.0 NL	4	-
18	5545009	WASHER, M4 x 9mm FLAT	2	-
19	5530008	SHCS M4 x 0.7 x 12 BOC	2	-
20	5535010	NUT M4 X 0.7 NL	2	-
21	5545027	WASHER M12 x Ø37	4	-
22	5545535	C WASHER SHIM FOR LIFTS	20	-
23	5580012	LIQUID PTFE THREAD SEALANT 50ml	1	-

WHERE USED
HDSO-14 SERIES

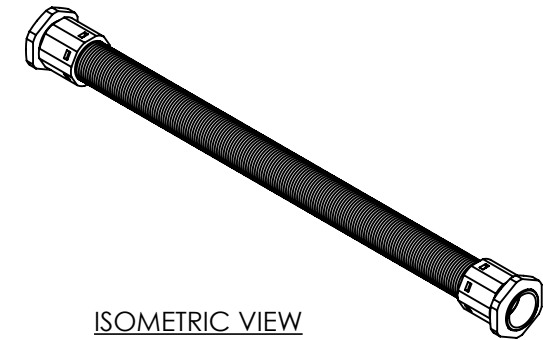
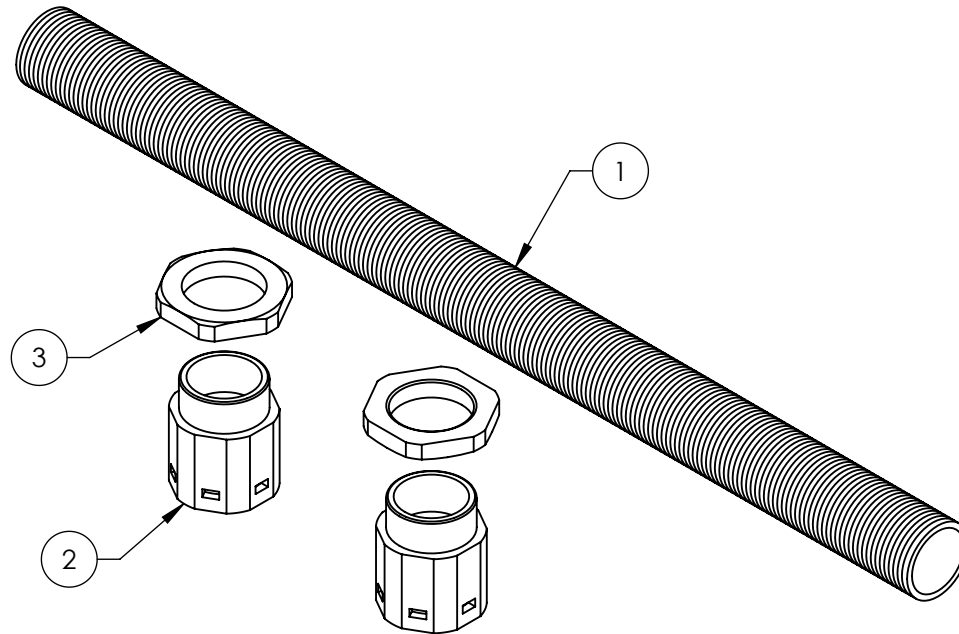
NOTE: UNLESS OTHERWISE SPECIFIED.

1. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING

NEXT ASSEMBLY
5250058
5250059

DO NOT SCALE DRAWING		NAME	DATE	 1645 LEMONWOOD DR. SANTA PAULA, CA 93060
DRAWN	AC	08/08/2008		
CHECKED	OR	09/21/2021		
DIMENSIONS ARE IN MM		THIRD ANGLE PROJECTION		TITLE:
				HDSO-14 PARTS BAG
				SIZE DWG. NO. REV A 5174099 F
		PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF BENDPAK INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.		SCALE: 1:30 SHEET 1 OF 1

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
A	PRODUCTION RELEASE, DERIVED FROM 5570050, 5570052, 5570239	05/05/2022	TM	01414 PRE A



ISOMETRIC VIEW
FOR REFERENCE ONLY
DO NOT SCALE

WHERE USED
D4-12 SERIES
HD-14T
HD-7500 SERIES
HD-7W
HD-7P
HD-9 SERIES
HD-973 SERIES
HDS-14 SERIES
HDSO-14 SERIES
HDS-18/27/40 SERIES

NOTE: UNLESS OTHERWISE SPECIFIED.

- SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING
- SHOWN IN REPRESENTATIONAL FORM ONLY
(*)LENGTH FOR REFERENCE ONLY

NEXT ASSEMBLY		
5250058	5250175	5250289
5250059	5250184	5250290
5250079	5250185	5250294
5250081	5250187	5250295
5250082	5250188	5250336
5250143	5250189	5250337
5250144	5250191	5250338
5250164	5250193	5250349
5250167	5250194	5250364
5250168	5250195	
5250169	5250278	
5250172	5250286	

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5570053	PE FLEX TUBE Ø34.5xØ29	2100mm*	-
2	5555555	WQG1-M36/AD34.5 CONNECTOR	2	-
3	5535050	PLASTIC NUT M36 x 2	2	-

DO NOT SCALE DRAWING

DIMENSIONS ARE IN MM



NAME	DATE
DRAWN TM	05/05/2022
CHECKED OR	05/10/2022

THIRD ANGLE PROJECTION

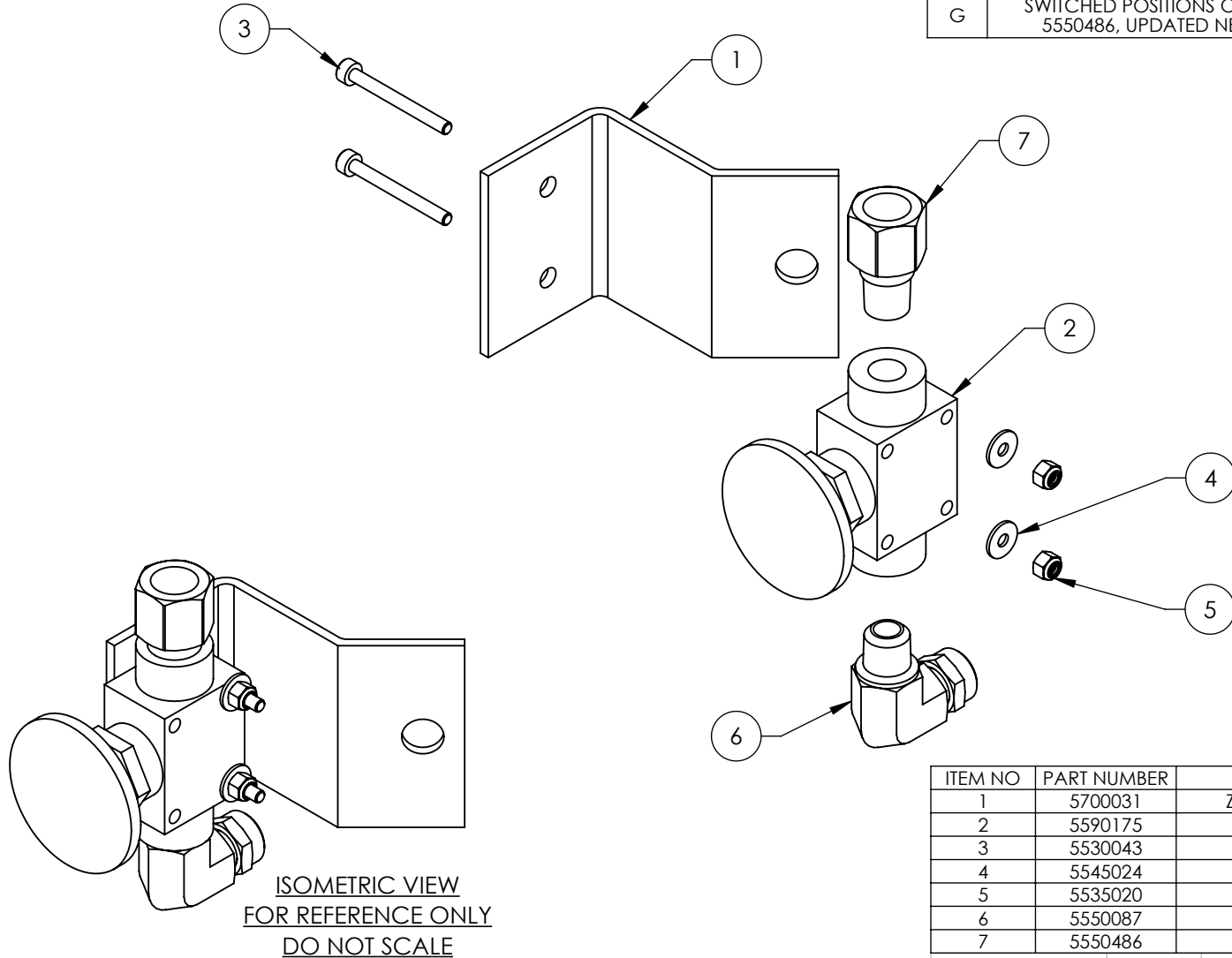


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BP BendPak.
1645 LEMONWOOD DR. SANTA PAULA, CA 93060

TITLE:		FLEX TUBE KIT, UP TO 2000mm	
SIZE	DWG. NO.		REV
A	5216139		A
SCALE: 1:3			SHEET 1 OF 1

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
E	REPLACED 5550481 WITH 5550087	10/29/2013	TM	00593
F	REPLACED 5590240 WITH 5590175, UPDATED NEXT ASSEMBLIES	05/05/2015	MR	00683
G	SWITCHED POSITIONS OF 5550087 AND 5550486, UPDATED NEXT ASSEMBLY	06/16/2016	TS	00765

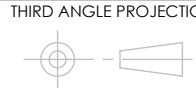


ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5700031	ZERO ANGLE MOUNTING BRACKET	1	C
2	5590175	PUSH BUTTON AIR VALVE	1	-
3	5530043	SHCS M3 x 0.5 x 30	2	-
4	5545024	WASHER, M3 x 9mm FLAT	2	-
5	5535020	NUT M3 x 0.5, NL CL8	2	-
6	5550087	FTG ELB -04 COMP x -02 NPT	1	-
7	5550486	FTG NPL -02 NPT x -04 F NPT	1	-

DO NOT SCALE DRAWING

NAME DATE
DRAWN AC 03/14/2008
CHECKED CA 09/02/2015

DIMENSIONS ARE IN MM



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SANTA PAULA, CA 93060

TITLE: PUSH BUTTON AIR
ASSEMBLY

SIZE DWG. NO. REV
A 5215096 G

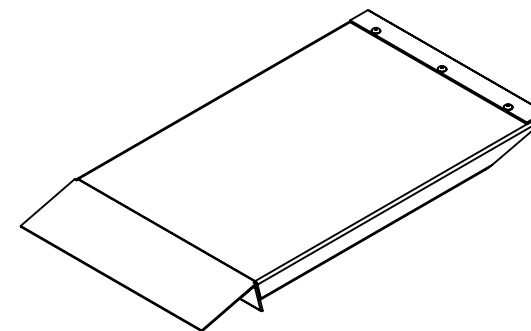
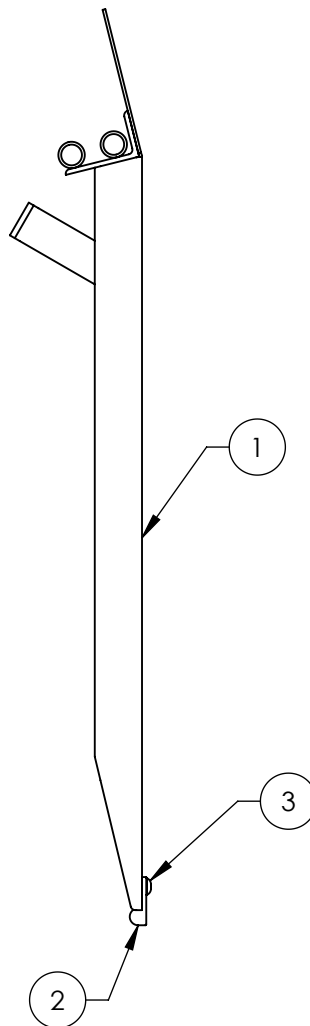
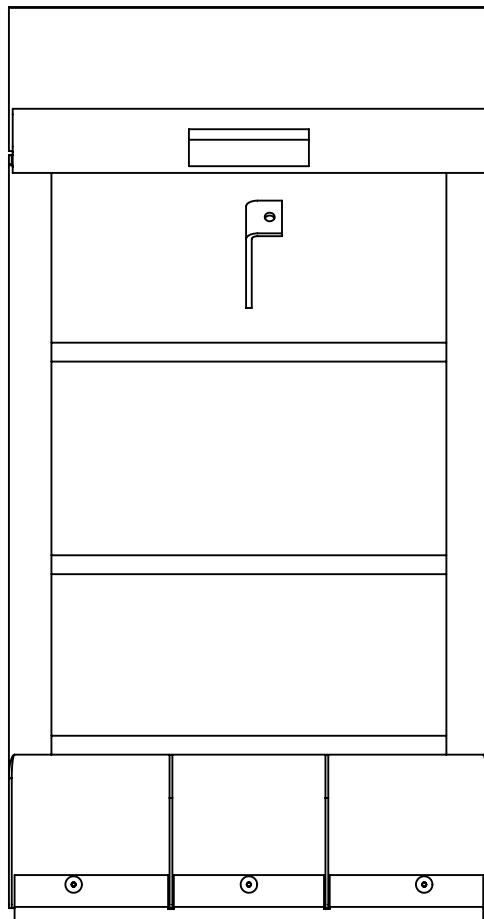
SCALE: 2:3

SHEET 1 OF 1

NOTE: UNLESS OTHERWISE SPECIFIED.

- SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING
- ASSEMBLE ITEMS AS SHOWN

NEXT ASSEMBLY
D4-12 SERIES
HD SERIES
HDS SERIES
HDSO SERIES
PL-12000DP



ISOMETRIC VIEW
FOR REFERENCE ONLY
DO NOT SCALE

WHERE USED
D4-12 SERIES
HD-14T
HDS-14 SERIES
HDSO-14 SERIES

NOTE: UNLESS OTHERWISE SPECIFIED.

1. REFER TO MODEL FOR ADDITIONAL INFORMATION
2. SEE COLORS & GRAPHICS FOR LABEL PLACEMENT
3. SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING
4. ASSEMBLE ITEMS AS SHOWN

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
G	UPDATED BOM REVISION	07/30/2010	TM	00387
G-001	UPDATED NEXT ASSEMBLY	05/17/2011	TM	00456
G-002	UPDATED NEXT ASSEMBLY	10/28/2011	TM	00487
G-003	UPDATED NEXT ASSEMBLIES	05/16/2013	TM	00593
G-004	UPDATED NEXT ASSEMBLIES	08/13/2014	TM	00664
G-005	UPDATED NEXT ASSEMBLIES	09/26/2016	TM	00782
H	UPDATED BOM REVISION AND NEXT ASSEMBLIES	05/31/2018	TS	00951
H-001	UPDATED NEXT ASSEMBLY	08/30/2018	TM	00992
J	REPLACED 5716149 WITH 5716087, REPLACED 5530097 AND 5535357 WITH 5530465, UPDATED BOM REVISION	08/09/2022	TM	01436

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5600138	HD/HDS/HDSO-14 DRIVE UP RAMP WELDMENT	1	G
2	5716087	HDS-14 APPROACH RAMP EDGE GUARD	1	A
3	5530465	BBSS M6 x 1.0 x 12mm	3	--

NEXT ASSEMBLY
5210743
5245081
5245082
5245083
5245084
5245085
5245095
5245096
5245416
5245417

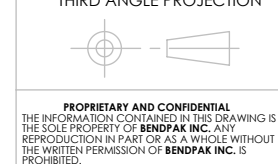
DO NOT SCALE DRAWING

DIMENSIONS ARE IN MM



NAME	DATE
DRAWN	TM 06/04/2008
CHECKED	OR 08/16/2022

THIRD ANGLE PROJECTION



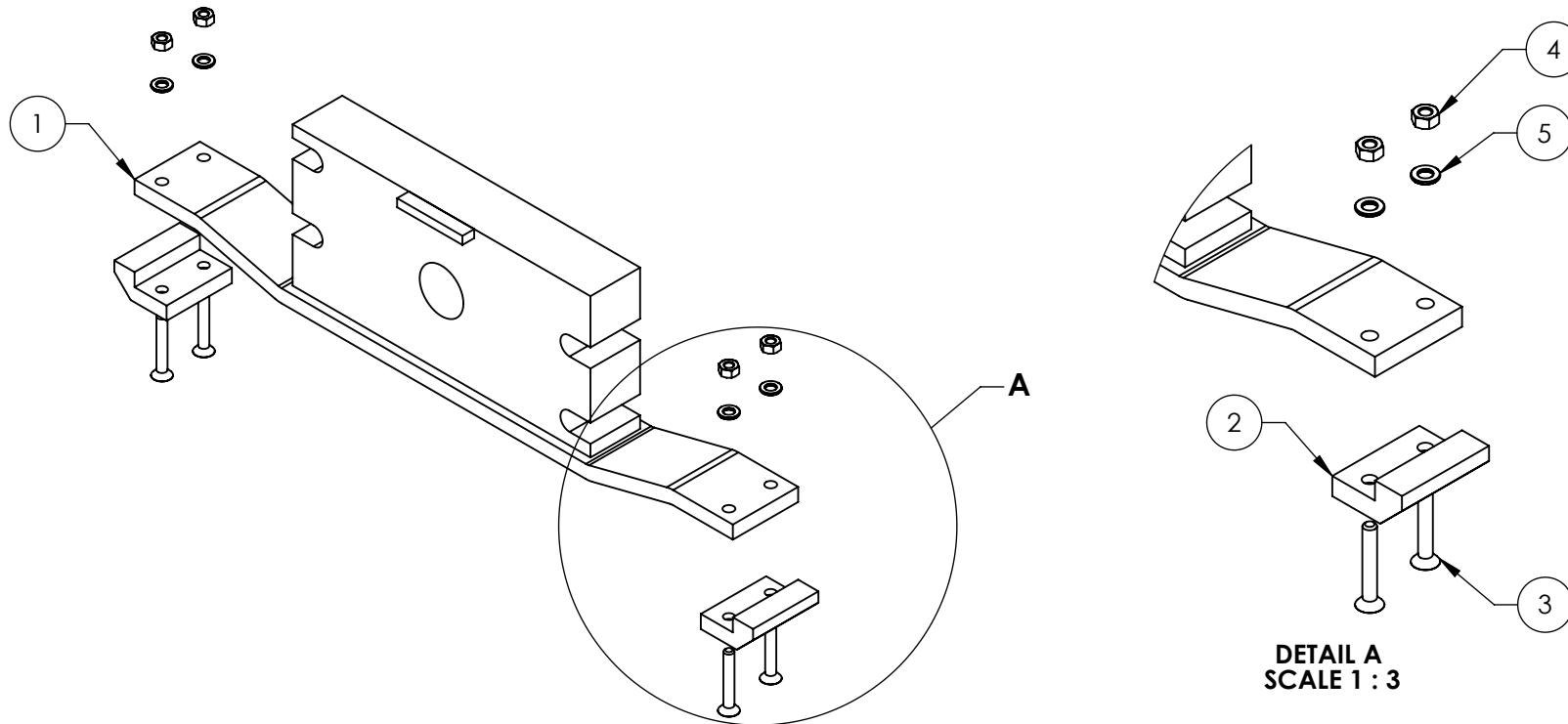
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TITLE: D4-12, HD/HDS/HDSO-14
DRIVE UP RAMP ASSEMBLY

SIZE	DWG. NO.	REV
A	5215104	J
SCALE: 1:8		SHEET 1 OF 1

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
A	PRODUCTION RELEASE, DREIVED FROM 5215033	08/04/2014	TM	00664
B	REPLACED 5530077 WITH 5530247, UPDATED BOM REVISION	05/01/2017	TS	00829
C	UPDATED BOM REVISION AND NEXT ASSEMBLY	07/07/2017	TM	00843



DETAIL A
SCALE 1 : 3

WHERE USED
HDS-14
HDS-14X
HDSO-14

NOTE: UNLESS OTHERWISE SPECIFIED.

- SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING
- ASSEMBLE ITEMS AS SHOWN

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5600924	HDS/HDSO-14 CYLINDER FLANGE ARM WELDMENT	1	A
2	5716006	HD/HDS/HDSO-14 CYLINDER FLANGE ARM SLIDE	2	F
3	5530247	FHPS M6 x 1 x 40	4	-
4	5535112	NUT M6 x 1.0	4	-
5	5545005	M6 FLAT WASHER	4	-

DO NOT SCALE DRAWING		NAME	DATE	 1645 LEMONWOOD DR. SANTA PAULA, CA 93060
DIMENSIONS ARE IN MM TOLERANCES: 0. = ±1.5 0.0 = ±0.5 ANGULAR: 0. = ±2°		DRAWN	TM	08/04/2014
SURFACE FINISH 1.6 ISO Ra μm FOR MACHINED SURFACES UNLESS OTHERWISE SPECIFIED		CHECKED	AW	7/27/2017
NEXT ASSEMBLY 5210228 5215072 5215097 5215241		THIRD ANGLE PROJECTION		
		PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF BENDPAK INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.		
		TITLE: HDS/HDSO-14 CYLINDER FLANGE ARM ASSEMBLY		
		SIZE	DWG. NO.	REV
		A	5215664	C
		SCALE: 1:4		SHEET 1 OF 1

PART SPECIFICATION FORM

ACP

BENDPAK Number:	5570129
MRP Description:	1/4" HYDRAULIC HOSE 31 CL-0400X
Date:	05/24/2018
ECO :	00950

1. Engineering Specification

Application:

1/4" HYDRAULIC HOSE

Detailed Description:

ONE or TWO BRAID STEEL WIRE HYDRAULIC HOSE

SIZE: 1/4" / 6mm I.D. MIN
 0.53" / 13.4mm O.D. MAX

SPECS: 5700PSI OR 393 BAR WORKING PRESSURE MINIMUM
 17100PSI OR 1179 BAR MINIMUM BURST PRESSURE MINIMUM
 3" / 80mm MIN BEND RADIUS

COLOR: BLACK

ADDITIONAL CONTACT INFORMATION:

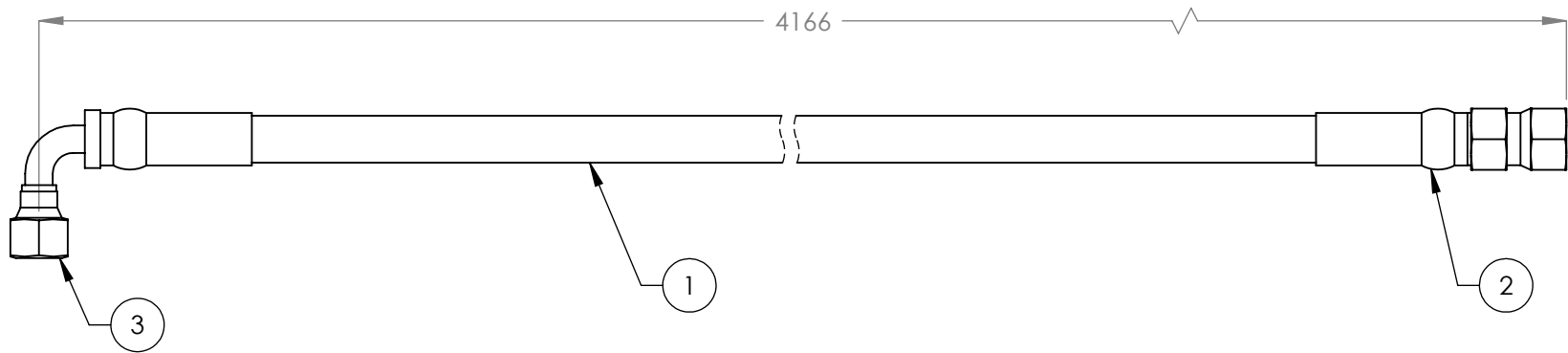
Xin Yurong
 Shandong Ningjin High Energy Hose Co., Ltd.
 Tel: +86 534-5421821
 No. 7, Taishan Rd., Industrial Park, Ningjin County, Shandong, China



2. Vendor Information (Or for Reference)

Approved Vendor	Vendor Part #	Contact #	AUTHORIZED COMPONENT PROVIDER
1) Ningjin Hydraulic Hose Co.	5570129	+86 534-5421821	X
2)			
OR BENDPAK ENGINEERING APPROVED EQUIVALENT			

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
A A-001	DERIVED FROM 5570040, PRODUCTION RELEASE UPDATED NEXT ASSEMBLIES	07/16/2009 05/20/2013	AC TM	00249 00593
B	REPLACED 5570110 WITH 5570129, UPDATED NEXT ASSEMBLIES	09/23/2016	TM	00782



WHERE USED
HD-973P
HD-973P-G
HDS-14LSX
HDS-14LSXE
HDSO-14AX
HDSO-14P

NOTE: UNLESS OTHERWISE SPECIFIED.

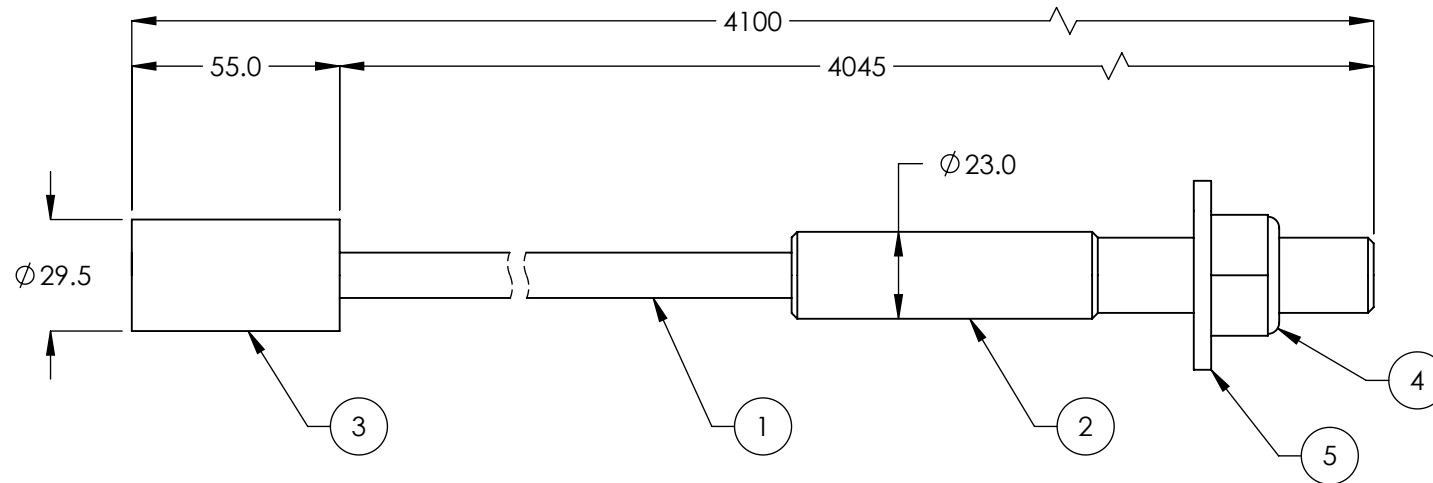
- FOR ITEM 1 SPECIFICATIONS REFER TO PART SPECIFICATION FORM
- (*)ITEM 1 QTY FOR REFERENCE ONLY

ITEM NO	PART NUMBER	DESCRIPTION	QTY.	REV
1	5570129	Ø6.4 ID HYDRAULIC HOSE	4088mm*	-
2	5550325	FTG NPL Ø1/4 CRIMP x -04 JIC	1	-
3	5550345	FTG ELB Ø1/4 CRIMP x -04 JIC	1	-

DO NOT SCALE DRAWING		NAME	DATE	 1645 LEMONWOOD DR. SANTA PAULA, CA 93060
DRAWN		AC	07/15/2009	
CHECKED		TM	10/04/2014	
THIRD ANGLE PROJECTION				TITLE: HYDRAULIC HOSE ASSEMBLY Ø6.4 x 4166mm
DIMENSIONS ARE IN MM TOLERANCES: 0. = ±1.5 0.0 = ±1.0 0.00 = ±0.25 0.000 = ±0.13 SURFACE FINISH 1.6 ISO Ra µm FOR MACHINED SURFACES UNLESS OTHERWISE SPECIFIED		PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF BENDPAK INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.		SIZE DWG. NO. REV A 5570871 B
SCALE: 1:2			SHEET 1 OF 1	

NEXT ASSEMBLY
5250058
5250059
5250081
5250194
5250195
5250336

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
C	UPDATED TITLE TO DENOTE SINGLE THREADED END	06/09/2010	AC	00366
C-001	UPDATED NEXT ASSEMBLIES	05/17/2013	TM	00593
C-002	UPDATED NEXT ASSEMBLIES	09/26/2016	TM	00782
D	UPDATED BOM REVISION	12/28/2017	TM	00909
E	ADDED 5535011 AND 5545345	07/20/2020	TM	01174



ITEM NO	PART NUMBER	DESCRIPTION	QTY.	REV
1	5595001	CABLE, LIFTING Ø12	4015mm*	-
2	5746020	Ø12 THREADED CABLE CONNECTOR	1	D
3	5746019	Ø12 CABLE END CONNECTOR	1	F
4	5535011	NUT M22 x 2.5 NL	1	-
5	5545345	WASHER M22 x 50mm FLAT	1	-

WHERE USED
HDS-14 SERIES
HDSO-14 SERIES

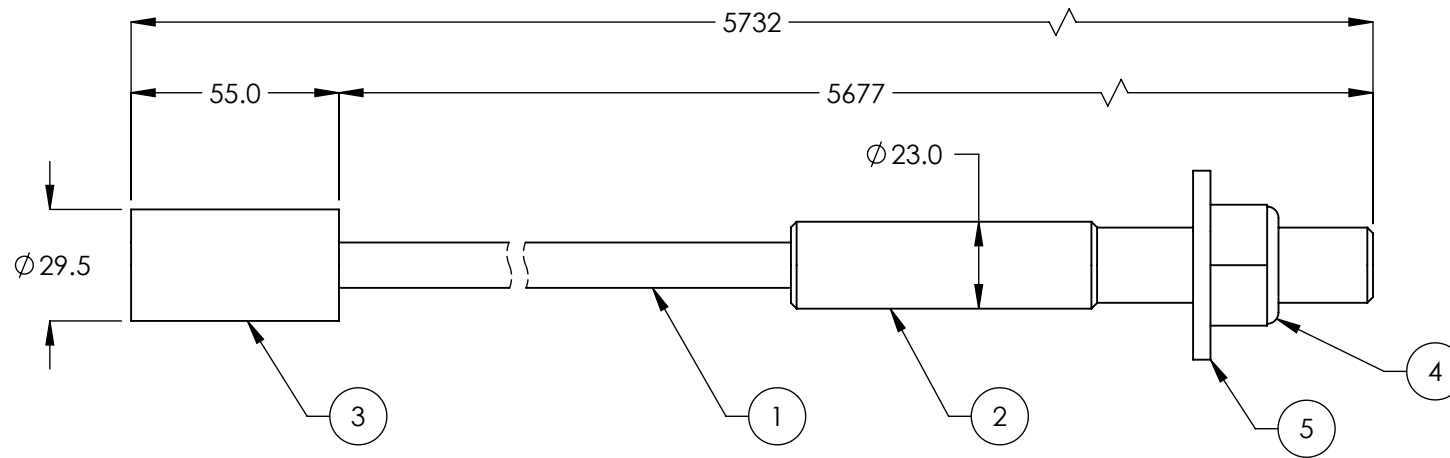
NOTE: UNLESS OTHERWISE SPECIFIED.

- FOR ITEM 1 SPECIFICATIONS REFER TO PART SPECIFICATION FORM
- LENGTH SHOWN IS AFTER SWAGING
- ITEM 1 QTY FOR REFERENCE ONLY
- THREAD 5535011 WITH 5545345 ONTO CABLES FOR SHIPMENT

NEXT ASSEMBLY
5250058
5250059
5250143
5250144
5250194
5250195

DO NOT SCALE DRAWING		NAME	DATE	 BendPak. 1645 LEMONWOOD DR. SANTA PAULA, CA 93060
DRAWN		GJZ	11/18/2008	
CHECKED				
THIRD ANGLE PROJECTION				
DIMENSIONS ARE IN MM TOLERANCES: 0. = ±1.5 0.0 = ±0.5				
SURFACE FINISH 1.6 ISO Ra µm FOR MACHINED SURFACES UNLESS OTHERWISE SPECIFIED				
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF BENDPAK INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.		TITLE: HDS/HDSO-14 CABLE ASSEMBLY Ø12 x 4100mm ST		
SIZE		DWG. NO.		REV
A		5595065		E
SCALE: 1:2				SHEET 1 OF 1

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
C	UPDATED TITLE TO DENOTE SINGLE THREADED END	06/09/2010	AC	00366
C-001	UPDATED NEXT ASSEMBLIES	05/17/2013	TM	00593
C-002	UPDATED NEXT ASSEMBLIES	09/26/2016	TM	00782
D	UPDATED BOM REVISION	12/28/2017	TM	00909
E	ADDED 5535011 AND 5545345	07/20/2020	TM	01174



WHERE USED
HDS-14 SERIES
HDSO-14 SERIES

NOTE: UNLESS OTHERWISE SPECIFIED.

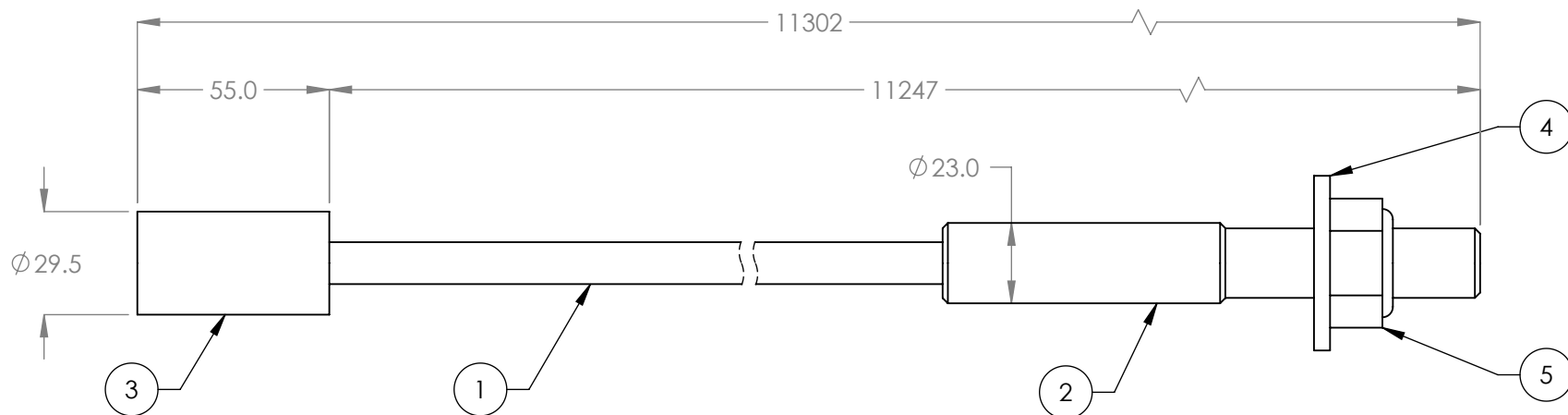
- FOR ITEM 1 SPECIFICATIONS REFER TO PART SPECIFICATION FORM
- LENGTH SHOWN IS AFTER SWAGING
- ITEM 1 QTY FOR REFERENCE ONLY
- THREAD 5535011 WITH 5545345 ONTO CABLES FOR SHIPMENT

NEXT ASSEMBLY
5250058
5250059
5250143
5250144
5250194
5250195

ITEM NO	PART NUMBER	DESCRIPTION	QTY.	REV
1	5595001	CABLE, LIFTING Ø12	5647mm*	-
2	5746020	Ø12 THREADED CABLE CONNECTOR	1	D
3	5746019	Ø12 CABLE END CONNECTOR	1	F
4	5535011	NUT M22 x 2.5 NL	1	-
5	5545345	WASHER M22 x 50mm FLAT	1	-

DO NOT SCALE DRAWING		NAME	DATE	 BendPak 1645 LEMONWOOD DR. SANTA PAULA, CA 93060	
		DRAWN	GJZ 11/18/2008		
		CHECKED			
DIMENSIONS ARE IN MM TOLERANCES: 0. = ±1.5 0.0 = ±0.5		THIRD ANGLE PROJECTION		TITLE: HDS/HDSO-14 CABLE ASSEMBLY Ø12 x 5732mm ST	
SURFACE FINISH 1.6 ISO Ra µm FOR MACHINED SURFACES UNLESS OTHERWISE SPECIFIED					
		PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF BENDPAK INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.			
Y			SIZE	DWG. NO.	REV
			A	5595066	E
SCALE: 1:2				SHEET 1 OF 1	

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
B	WAS 11352 NOW 11302, UPDATED TITLE TO REFLECT SIZE	12/22/2016	DB	00798
C	UPDATED BOM REVISION	12/28/2017	TM	00909
D	ADDED 5535011 AND 5545345	07/21/2020	TM	01174



WHERE USED
HDSO-14AX
HDSO-14P

NOTE: UNLESS OTHERWISE SPECIFIED.

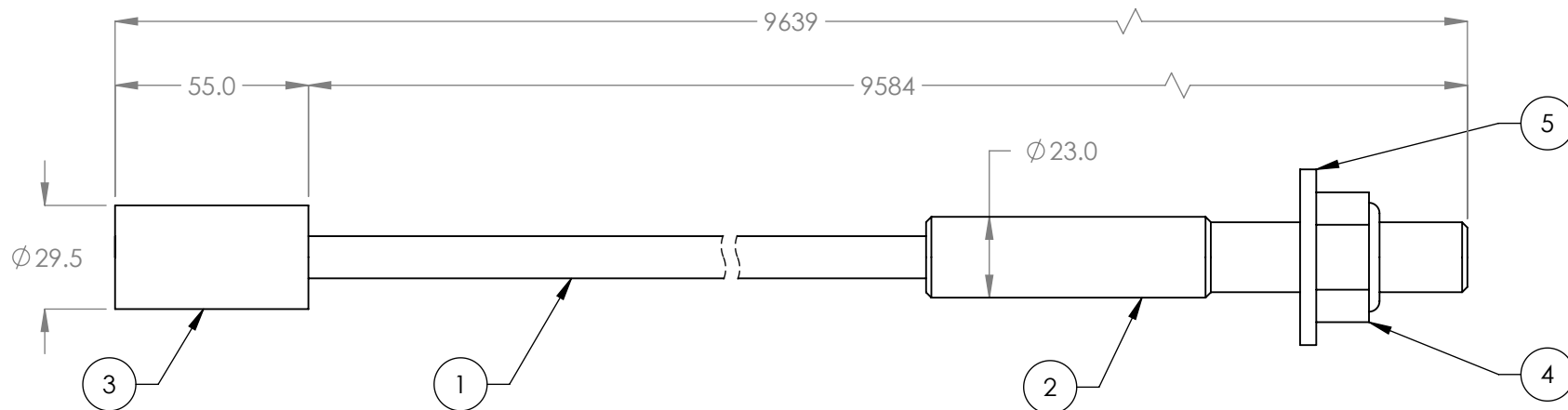
- FOR ITEM 1 SPECIFICATIONS REFER TO PART SPECIFICATION FORM
- LENGTH SHOWN IS AFTER SWAGING
- ITEM 1 QTY FOR REFERENCE ONLY
- THREAD 5535011 WITH 5545345 ONTO CABLES FOR SHIPMENT

NEXT ASSEMBLY
5250058
5250059

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	REV
1	5595001	CABLE, LIFTING Ø12	11220mm*	-
2	5746020	Ø12 THREADED CABLE CONNECTOR	1	D
3	5746019	Ø12 CABLE END CONNECTOR	1	F
4	5545345	WASHER M22 x 50mm FLAT	1	-
5	5535011	NUT M22 x 2.5 NL	1	-

DO NOT SCALE DRAWING		NAME	DATE	 BendPak.	
DIMENSIONS ARE IN MM TOLERANCES: 0. = ±1.5 0.0 = ±0.5 SURFACE FINISH 1.6 ISO Ra µm FOR MACHINED SURFACES UNLESS OTHERWISE SPECIFIED		DRAWN	TM	09/23/2016	
		CHECKED			
		THIRD ANGLE PROJECTION			
				TITLE: HDSO-14P/AX CABLE ASSEMBLY Ø12 x 11302mm ST SIZE DWG. NO. A5595089 SCALE: 1:2	
		PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF BENDPAK INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.			
				REV D SHEET 1 OF 1	

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
A	PRODUCTION RELEASED, DREIVED FROM 5595535	09/23/2016	TM	00782
B	UPDATED BOM REVISION	01/11/2018	TM	00909
C	ADDED 5535011 AND 5545345	07/21/2020	TM	01174



WHERE USED
HDSO-14AX
HDSO-14P

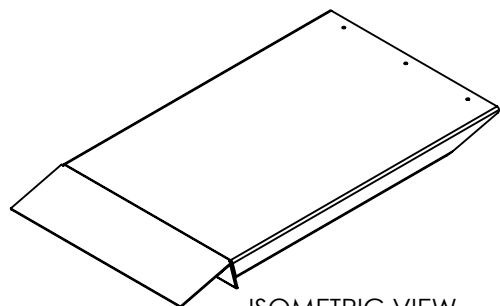
NOTE: UNLESS OTHERWISE SPECIFIED.

- FOR ITEM 1 SPECIFICATIONS REFER TO PART SPECIFICATION FORM
- LENGTH SHOWN IS AFTER SWAGING
- ITEM 1 QTY FOR REFERENCE ONLY
- THREAD 5535011 WITH 5545345 ONTO CABLES FOR SHIPMENT

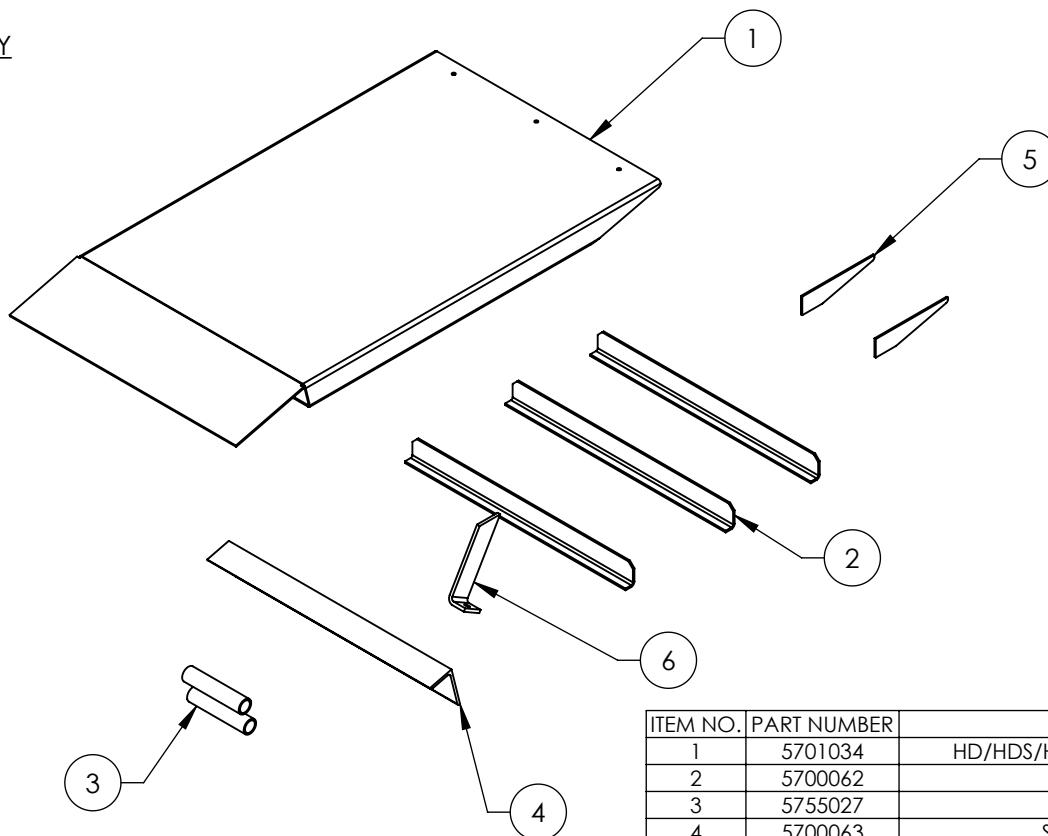
NEXT ASSEMBLY
5250058
5250059

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	REV
1	5595001	CABLE, LIFTING Ø12	9557mm*	-
2	5746020	Ø12 THREADED CABLE CONNECTOR	1	D
3	5746019	Ø12 CABLE END CONNECTOR	1	F
4	5535011	NUT M22 x 2.5 NL	1	-
5	5545345	WASHER M22 x 50mm FLAT	1	-

DO NOT SCALE DRAWING		NAME	DATE	 BendPak. 1645 LEMONWOOD DR. SANTA PAULA, CA 93060
DRAWN		TM	09/23/2016	
CHECKED				
DIMENSIONS ARE IN MM TOLERANCES: 0. = ±1.5 0.0 = ±0.5 SURFACE FINISH 1.6 ISO Ra µm FOR MACHINED SURFACES UNLESS OTHERWISE SPECIFIED	THIRD ANGLE PROJECTION			TITLE: HDSO-14P/AX CABLE ASSEMBLY Ø12 x 9639mm ST
				
	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF BENDPAK INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.			
Y	SIZE		DWG. NO.	REV
	A		5595931	C
SCALE: 1:2			SHEET 1 OF 1	



ISOMETRIC VIEW
FOR REFERENCE ONLY
DO NOT SCALE



REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
F	UPDATED BOM REVISION	07/30/2010	TM	00387
F-001	CHANGED PAINT COLOR FROM BLUE TO YELLOW AND ADDED PAINT SPEC NUMBER	12/08/2010	TM	00427
F-002	CHANGE PAINT SPEC FROM 583-2T TO RAL-1018	01/04/2017	TS	00798
F-003	ADDED GLOSS NOTE TO PAINT	02/05/2020	CA	01120
G	WAS 128 NOW 162, WAS 38 NOW 167 2PL, 5755027 WAS 50 NOW 46, ADDED 18.0 DISTANCE, REMOVED ALUMINUM OXIDE GRIT, UPDATED BOM REVISION	08/04/2022	TM	01436

WHERE USED
HD-14T
HDS-14 SERIES
HDSO-14 SERIES

NOTE: UNLESS OTHERWISE SPECIFIED.

- REFER TO MODEL FOR ADDITIONAL INFORMATION
- BREAK AND DEBURR ALL SHARP EDGES 0.3mm
- REMOVE ALL WELD SPLATTER
- DIMENSIONS SHOWN ARE AFTER PAINTING
- PAINT BENDPAK YELLOW (RAL-1018) 20% GLOSS

NEXT ASSEMBLY
5215104

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	REV
1	5701034	HD/HDS/HDSO-14 DRIVE UP RAMP	1	E
2	5700062	RAMP SUPPORT	3	C
3	5755027	RAMP HINGE	2	C
4	5700063	SUPPORT ANGLE	1	D
5	5736083	DRIVE UP RAMP END SUPPORT	2	F
6	5730012	RAMP STOP	1	C

DO NOT SCALE DRAWING

DIMENSIONS ARE IN MM
TOLERANCES:
0. = ±1.5
0.0 = ±0.5

SURFACE FINISH 1.6 ISO Ra µm
FOR MACHINED SURFACES
UNLESS OTHERWISE SPECIFIED

NAME	DATE
DRAWN JR	04/30/2008
CHECKED OR	08/16/2022

THIRD ANGLE PROJECTION



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BendPak.

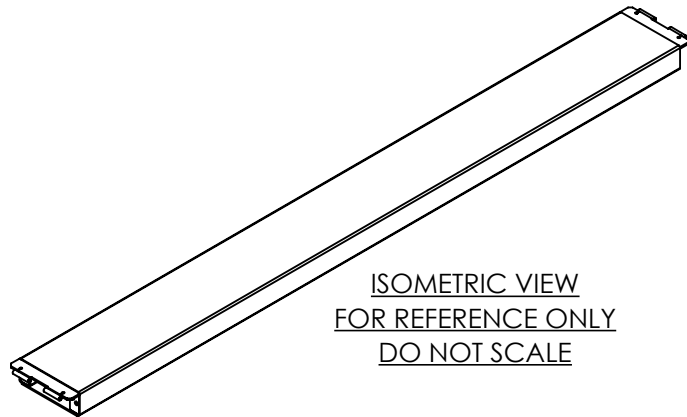
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

TITLE:
HD/HDS/HDSO-14 DRIVE
UP RAMP WELDMENT

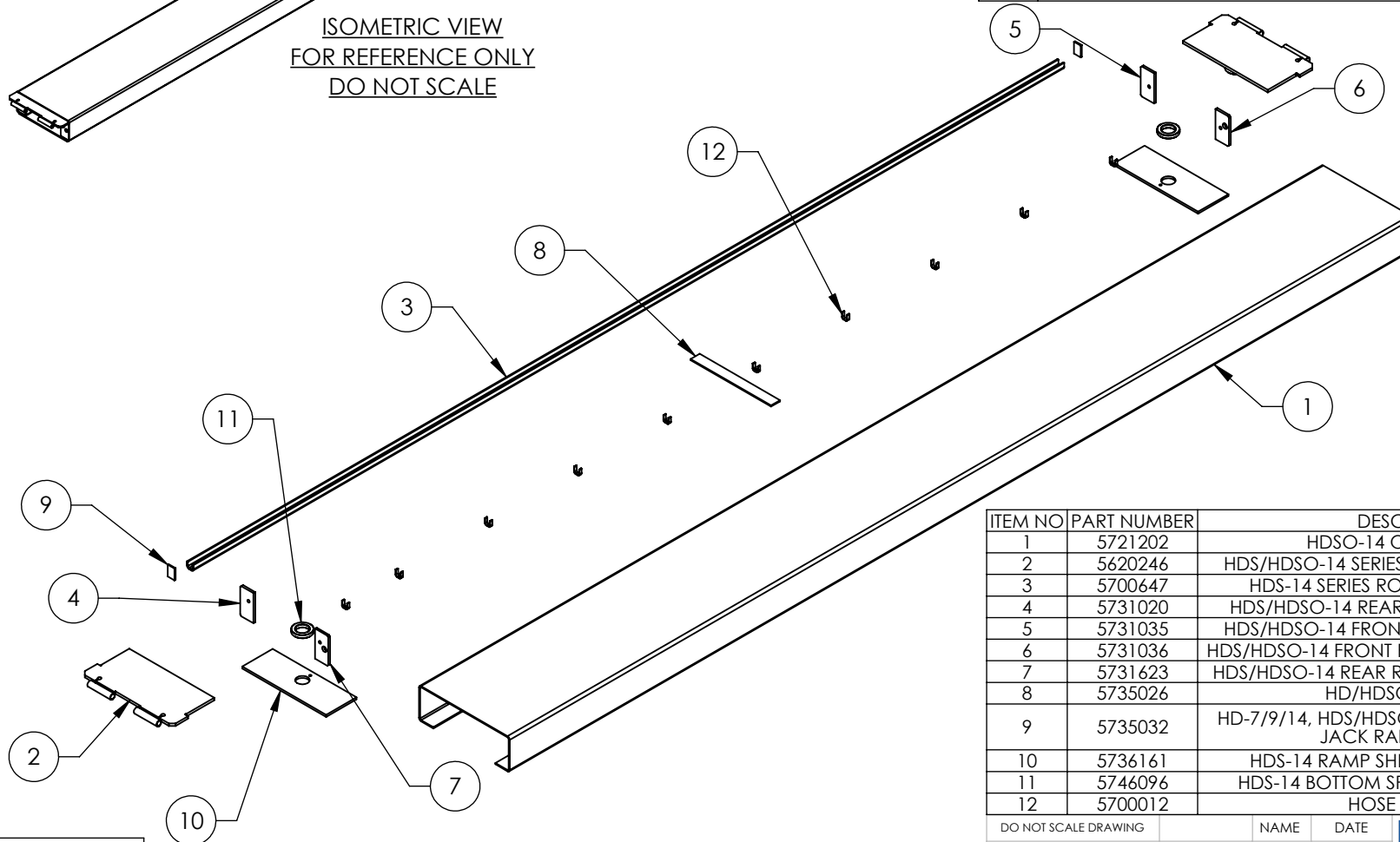
SIZE DWG. NO. REV
A 5600138 G

SCALE: 1:12

SHEET 1 OF 2



ISOMETRIC VIEW
FOR REFERENCE ONLY
DO NOT SCALE



WHERE USED
HDSO-14P

NOTE: UNLESS OTHERWISE SPECIFIED.

1. REFER TO MODEL FOR ADDITIONAL INFORMATION
2. BREAK AND DEBURR ALL SHARP EDGES 0.3mm
3. REMOVE ALL WELD SPLATTER
4. DIMENSIONS SHOWN ARE AFTER PAINTING
5. PAINT BENDPAK GRAY (RAL-7024) 20% GLOSS

NEXT ASSEMBLY
5215298

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
C	MOVED 5735032 UP 12mm, UPDATED BOM	10/18/2010	TM	00414
C-001	REVISION ROLLING BRIDGE BEAM WELD WAS 6 x 100-300 NOW 5 x 60-350	11/22/2010	TM	00427
D	UPDATED BOM REVISION	12/29/2010	AC	00431
E	REMOVED (1) 5735026 FROM THE UNDERSIDE, REMAINING 5735026 MOVED TO CENTER	01/07/2015	MR	00675
E-001	ADDED RAL NUMBER TO NOTES	01/05/2017	TS	00798
E-002	ADDED GLOSS NOTE TO PAINT, REMOVED GRIT NOTE	02/04/2020	CA	01120

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5721202	HDSO-14 OFF SIDE RAMP	1	A
2	5620246	HDS/HDSO-14 SERIES END PLATE WELDMENT	2	B
3	5700647	HDS-14 SERIES ROLLING BRIDGE BEAM	1	A
4	5731020	HDS/HDSO-14 REAR RAMP SUPPORT PLATE	1	A
5	5731035	HDS/HDSO-14 FRONT RAMP SUPPORT PLATE	1	A
6	5731036	HDS/HDSO-14 FRONT RAMP AIR SUPPORT PLATE	1	A
7	5731623	HDS/HDSO-14 REAR RAMP AIR SUPPORT PLATE	1	A
8	5735026	HD/HDSO-14 TIE BAR	1	E
9	5735032	HD-7/9/14, HDS/HDSO-14, XR-12000 ROLLING JACK RAIL CLOSEOUT	2	A
10	5736161	HDS-14 RAMP SHEAVE BOTTOM PLATE	2	B
11	5746096	HDS-14 BOTTOM SPACER, RAMP SHEAVE	2	A
12	5700012	HOSE RETAINER	10	B

DO NOT SCALE DRAWING

DIMENSIONS ARE IN MM
TOLERANCES:
0. = ±1.5
0.0 = ±0.5

SURFACE FINISH 1.6 ISO Ra μm
FOR MACHINED SURFACES
UNLESS OTHERWISE SPECIFIED

NAME	DATE
DRAWN AC	06/19/2009
CHECKED --	--
THIRD ANGLE PROJECTION	



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BendPak.

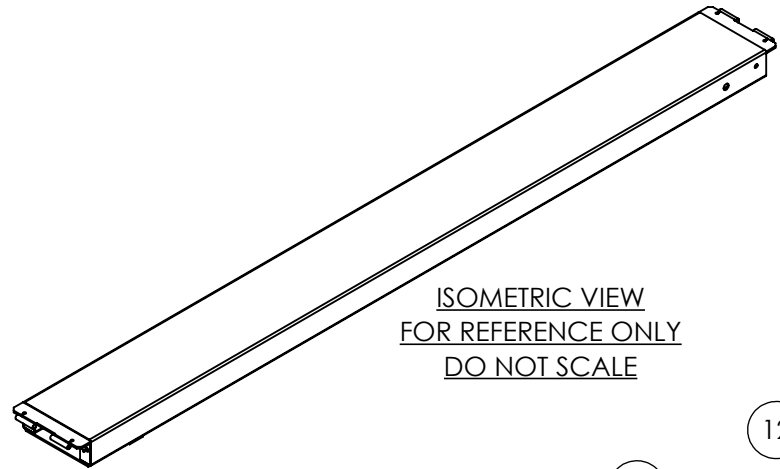
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

TITLE: HDSO-14P OFF SIDE
RAMP WELDMENT

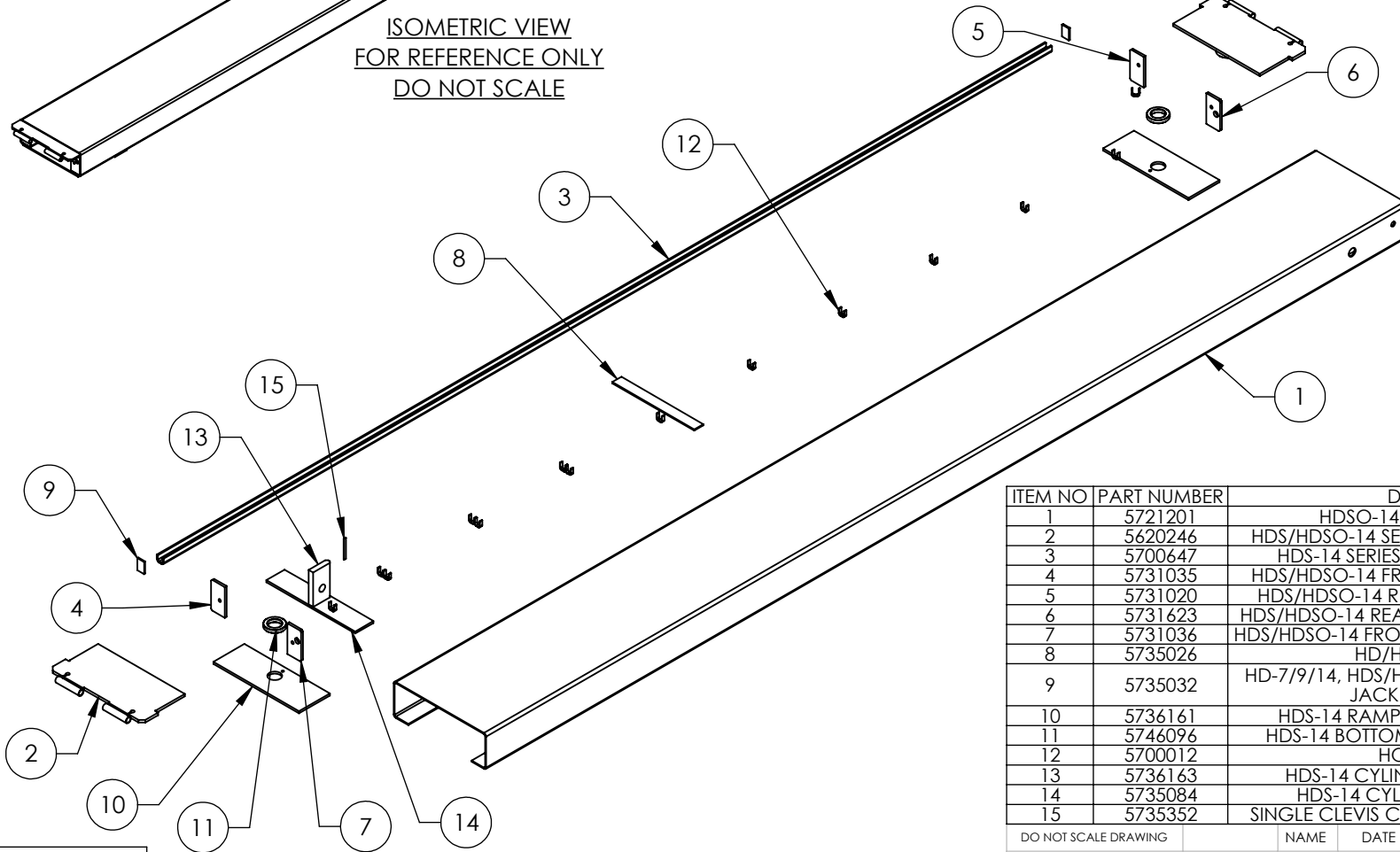
SIZE DWG. NO.	REV
A 5600282	E

SCALE: 1:26

SHEET 1 OF 3



ISOMETRIC VIEW
FOR REFERENCE ONLY
DO NOT SCALE



WHERE USED
HDSO-14P

NOTE: UNLESS OTHERWISE SPECIFIED.

1. REFER TO MODEL FOR ADDITIONAL INFORMATION
2. BREAK AND DEBURR ALL SHARP EDGES 0.3mm
3. REMOVE ALL WELD SPLATTER
4. DIMENSIONS SHOWN ARE AFTER PAINTING
5. PAINT BENDPAK GRAY (RAL-7024) 20% GLOSS

NEXT ASSEMBLY
5215097

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
C	UPDATED BOM REVISION	08/10/2010	TM	00388
D	MOVED 5735032 UP 12mm, UPDATED BOM REVISION	10/18/2010	TM	00414
D-001	ROLLING BRIDGE BEAM WELD WAS 6 x 100-300 NOW 5 x 60-350	11/22/2010	TM	00427
E	UPDATED BOM REVISION, ADDED 5735352	12/29/2010	TM	00431
E-001	ADDED 6mm WELD TO BOTTOM OF 5736163	08/11/2011	TM	00479
E-002	ADDED RAL NUMBER TO NOTES	01/05/2017	TS	00798
E-003	ADDED GLOSS NOTE TO PAINT, REMOVED GRIT NOTE	02/04/2020	CA	01120

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5721201	HDSO-14 POWER SIDE RAMP	1	A
2	5620246	HDS/HDSO-14 SERIES END PLATE WELDMENT	2	B
3	5700647	HDS-14 SERIES ROLLING BRIDGE BEAM	1	A
4	5731035	HDS/HDSO-14 FRONT RAMP SUPPORT PLATE	1	A
5	5731020	HDS/HDSO-14 REAR RAMP SUPPORT PLATE	1	A
6	5731623	HDS/HDSO-14 REAR RAMP AIR SUPPORT PLATE	1	A
7	5731036	HDS/HDSO-14 FRONT RAMP AIR SUPPORT PLATE	1	A
8	5735026	HD/HDSO-14 TIE BAR	1	E
9	5735032	HD-7/9/14, HDS/HDSO-14, XR-12000 ROLLING JACK RAIL CLOSEOUT	2	C
10	5736161	HDS-14 RAMP SHEAVE BOTTOM PLATE	2	B
11	5746096	HDS-14 BOTTOM SPACER, RAMP SHEAVE	2	A
12	5700012	HOSE RETAINER	14	B
13	5736163	HDS-14 CYLINDER MOUNTING PLATE	1	A
14	5735084	HDS-14 CYLINDER SUPPORT PLATE	1	A
15	5735352	SINGLE CLEVIS CYLINDER ALIGNMENT PLATE	1	A

DO NOT SCALE DRAWING

DIMENSIONS ARE IN MM
TOLERANCES:

0. = ±1.5
0.0 = ±0.5

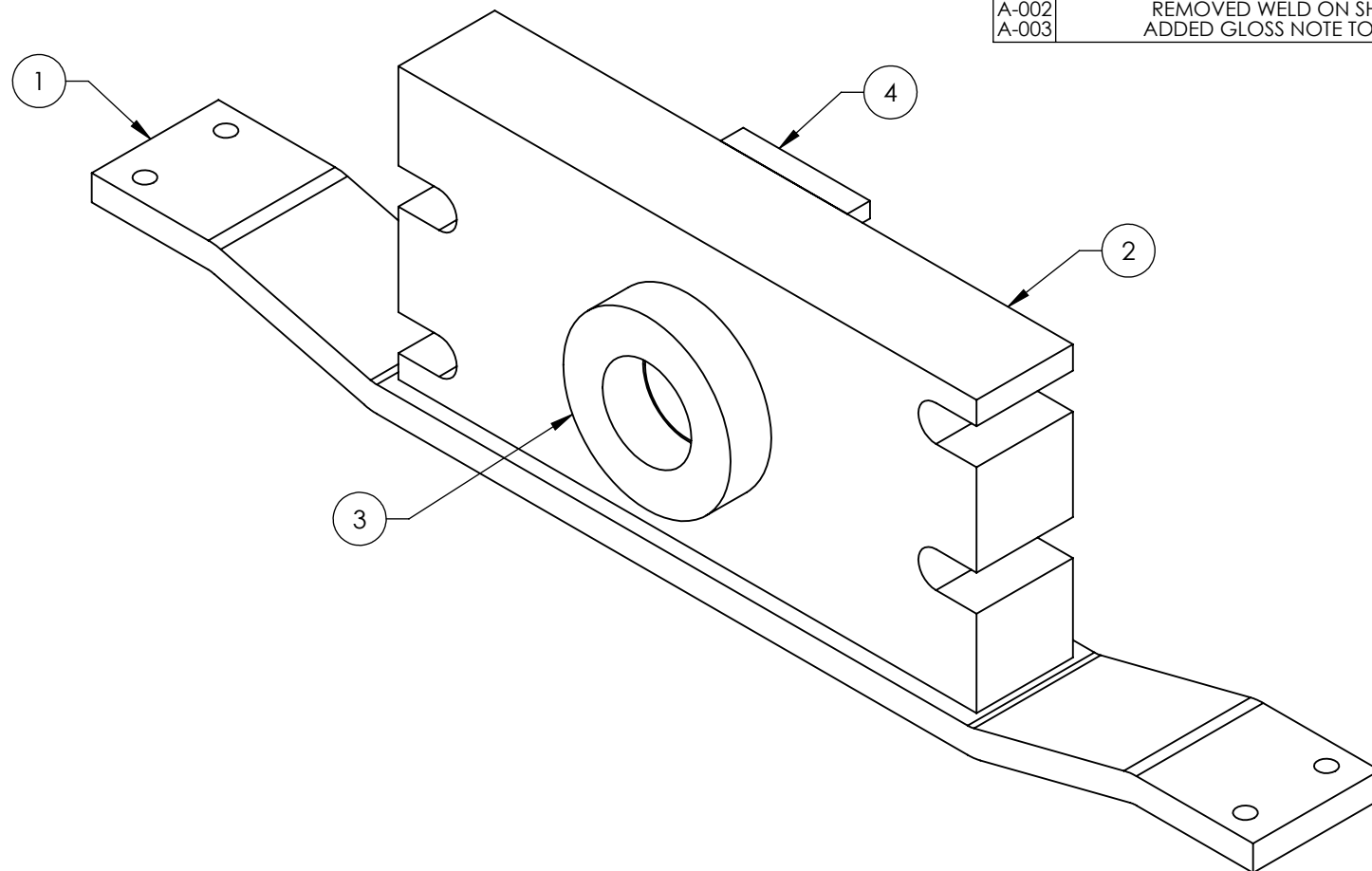
SURFACE FINISH 1.6 ISO Ra µm
FOR MACHINED SURFACES
UNLESS OTHERWISE SPECIFIED

NAME
DATE
DRAWN AC 06/19/2009
CHECKED -- --
THIRD ANGLE PROJECTION

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS
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REPRODUCTION IN PART OR AS A WHOLE WITHOUT
THE WRITTEN PERMISSION OF BENDPAK INC. IS
PROHIBITED.

BendPak.
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060
TITLE:
HDSO-14P POWER SIDE
RAMP WELDMENT
SIZE DWG. NO. REV
A 5600283 E
SCALE: 1:26 SHEET 1 OF 3

REVISION					
REV	DESCRIPTION	DATE	EDITED BY	ECO#	
A	PRODUCTION RELEASE, DERIVED FROM 5600079	08/04/2014	TM	00664	
A-001	ADDED RAL NUMBER TO NOTES	01/05/2017	TS	00798	
A-002	REMOVED WELD ON SHEET 2	05/01/2017	TS	00829	
A-003	ADDED GLOSS NOTE TO PAINT	02/03/2020	CA	01120	



WHERE USED
HDS-14
HDS-14X
HDSO-14P

NOTE: UNLESS OTHERWISE SPECIFIED.

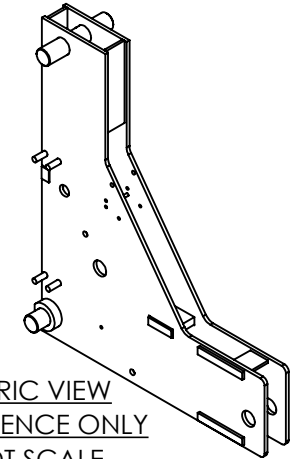
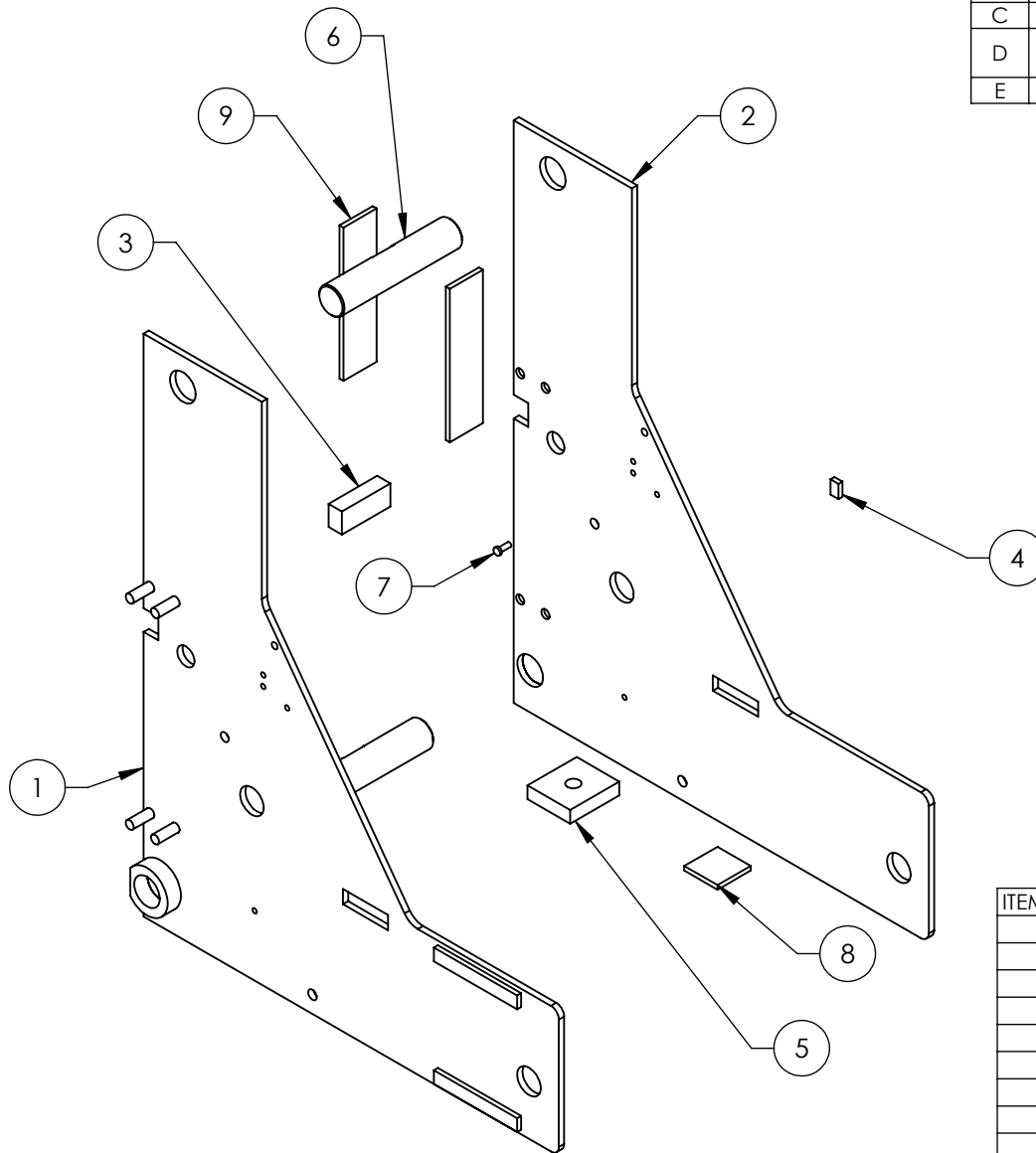
1. REFER TO MODEL FOR ADDITIONAL INFORMATION
2. BREAK AND DEBURR ALL SHARP EDGES 0.3mm
3. REMOVE ALL WELD SPLATTER
4. DIMENSIONS SHOWN ARE AFTER PAINTING
5. PAINT GRAY (RAL-7024) 20% GLOSS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	REV
1	5701732	HDS/HDSO-14 CYLINDER FLANGE ARM	1	A
2	5736820	HDS/HDSO-14 CABLE RETAINER BLOCK	1	A
3	5745317	HD-14 SERIES CYLINDER FLANGE ARM SPACER	1	A
4	5735289	D4-12, HD/HDS-14 CYLINDER FLANGE ARM SPACER	1	A

DO NOT SCALE DRAWING		NAME		DATE					
DIMENSIONS ARE IN MM TOLERANCES: 0. = ±1.5 0.0 = ±0.5		DRAWN		TM		08/04/2014			
		CHECKED		OR		04/22/2020			
SURFACE FINISH 1.6 ISO Ra µm FOR MACHINED SURFACES UNLESS OTHERWISE SPECIFIED		THIRD ANGLE PROJECTION				TITLE:			
						HDS/HDSO-14 CYLINDER FLANGE ARM WELDMENT			
Y		PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF BENDPAK INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.				SIZE DWG. NO.		REV	
						A 5600924		A	
						SCALE: 1:2		SHEET 1 OF 2	

NEXT ASSEMBLY
5215664

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
C	UPDATED BOM REVISION	06/11/2018	TS	00951
D	ADDED GLOSS TO PAINT, UPDATED BOM REVISION	10/09/2019	TS	01120
E	REPLACED 5746701 WITH 5746126	12/21/2020	TM	01249



ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5620427	HDSO-14 RIGHT END PLATE SUBWELDMENT	1	C
2	5620426	HDSO-14 LEFT END PLATE SUBWELDMENT	1	C
3	5735027	CROSSTUBE SAFETY BLOCK	1	B
4	5735028	PIN STOP	1	B
5	5736015	HDSO-14 ADJUSTMENT BLOCK	1	B
6	5746126	HDSO-14 CARRIAGE TOP SLIDE BLOCK PIN	2	C
7	5746012	SPRING CLEVIS PIN	1	B
8	5735067	HDSO-14 CARRIAGE TIE BLOCK	1	B
9	5735618	HDSO-14 INTERIOR CARRIAGE GUSSET	2	A

WHERE USED
HDSO-14 SERIES

NOTE: UNLESS OTHERWISE SPECIFIED.

1. REFER TO MODEL FOR ADDITIONAL INFORMATION
2. BREAK AND DEBURR ALL SHARP EDGES 0.3mm
3. REMOVE ALL WELD SPLATTER
4. DIMENSIONS SHOWN ARE AFTER PAINTING
5. PAINT GRAY (RAL-7024) 20% GLOSS

NEXT ASSEMBLY
5215464

DO NOT SCALE DRAWING

DIMENSIONS ARE IN MM
TOLERANCES:

0. = ± 1.5
0.0 = ± 0.5

SURFACE FINISH 1.6 ISO Ra μ m
FOR MACHINED SURFACES
UNLESS OTHERWISE SPECIFIED

NAME DATE
DRAWN TM 09/21/2016
CHECKED OR 12/23/2020

THIRD ANGLE PROJECTION



PROPRIETARY AND CONFIDENTIAL
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PROHIBITED.

BendPak.

1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

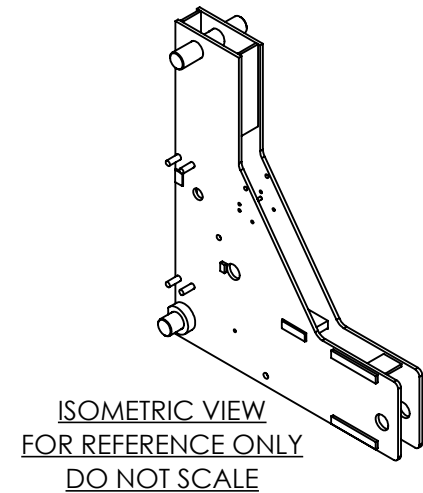
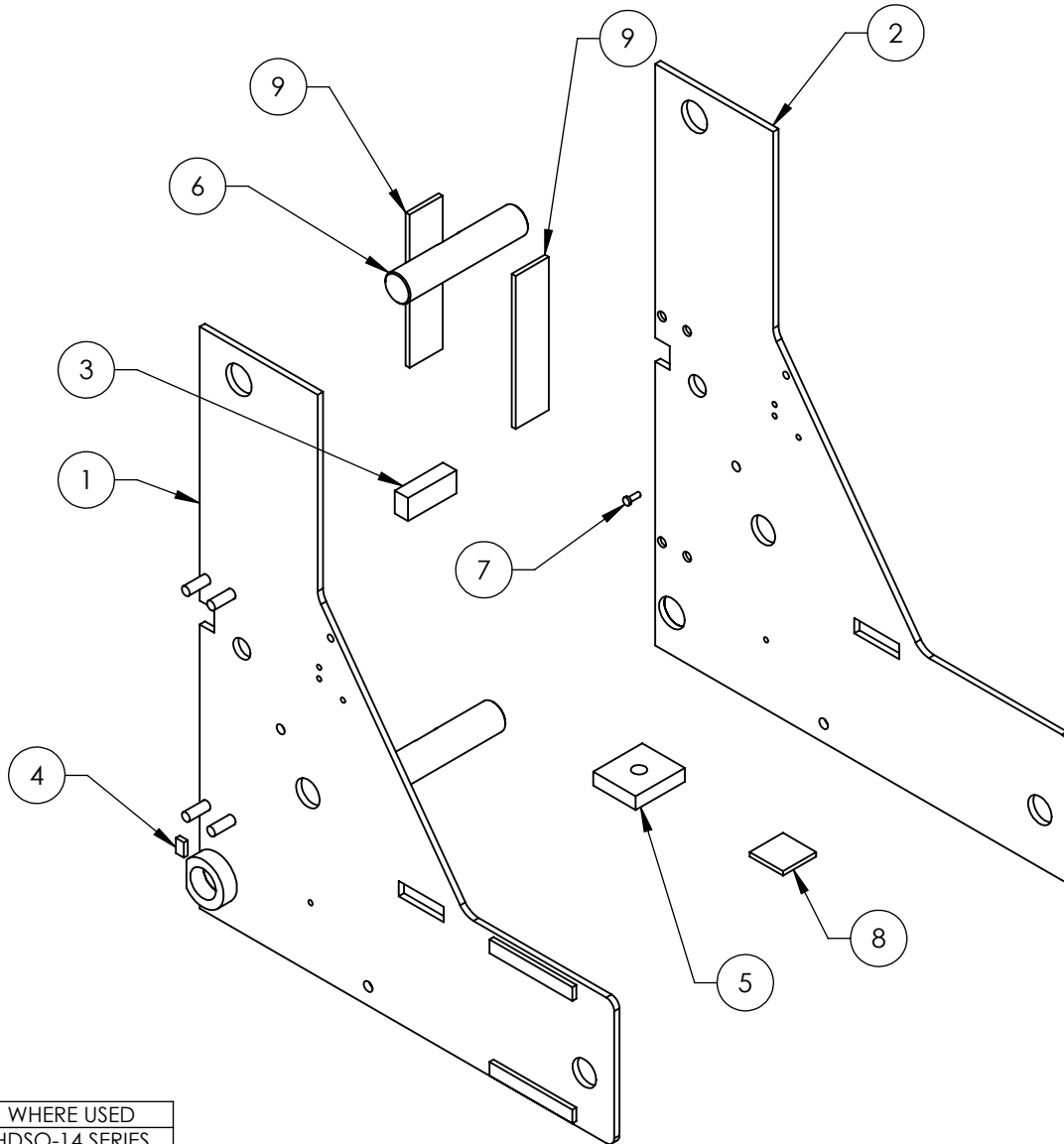
TITLE: HDSO-14 LEFT
CARRIAGE WELDMENT

SIZE DWG. NO. REV
A 5601110 E

SCALE: 1:8

SHEET 1 OF 3

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
C	UPDATED BOM REVISION	06/11/2018	TS	00951
D	ADDED GLOSS TO PAINT, UPDATED BOM REVISION	10/09/2019	TS	01120
E	REPLACED 5746701 WITH 5746126	12/21/2020	TM	01249



ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5620427	HDSO-14 RIGHT END PLATE SUBWELDMENT	1	C
2	5620426	HDSO-14 LEFT END PLATE SUBWELDMENT	1	C
3	5735027	CROSTUBE SAFETY BLOCK	1	B
4	5735028	PIN STOP	1	B
5	5736015	HDSO-14 ADJUSMENT BLOCK	1	B
6	5746126	HDSO-14 CARRIAGE TOP SLIDE BLOCK PIN	2	C
7	5746012	SPRING CLEVIS PIN	1	B
8	5735067	HDSO-14 CARRIAGE TIE BLOCK	1	B
9	5735618	HDSO-14 INTERIOR CARRIAGE GUSSET	2	A

WHERE USED
HDSO-14 SERIES

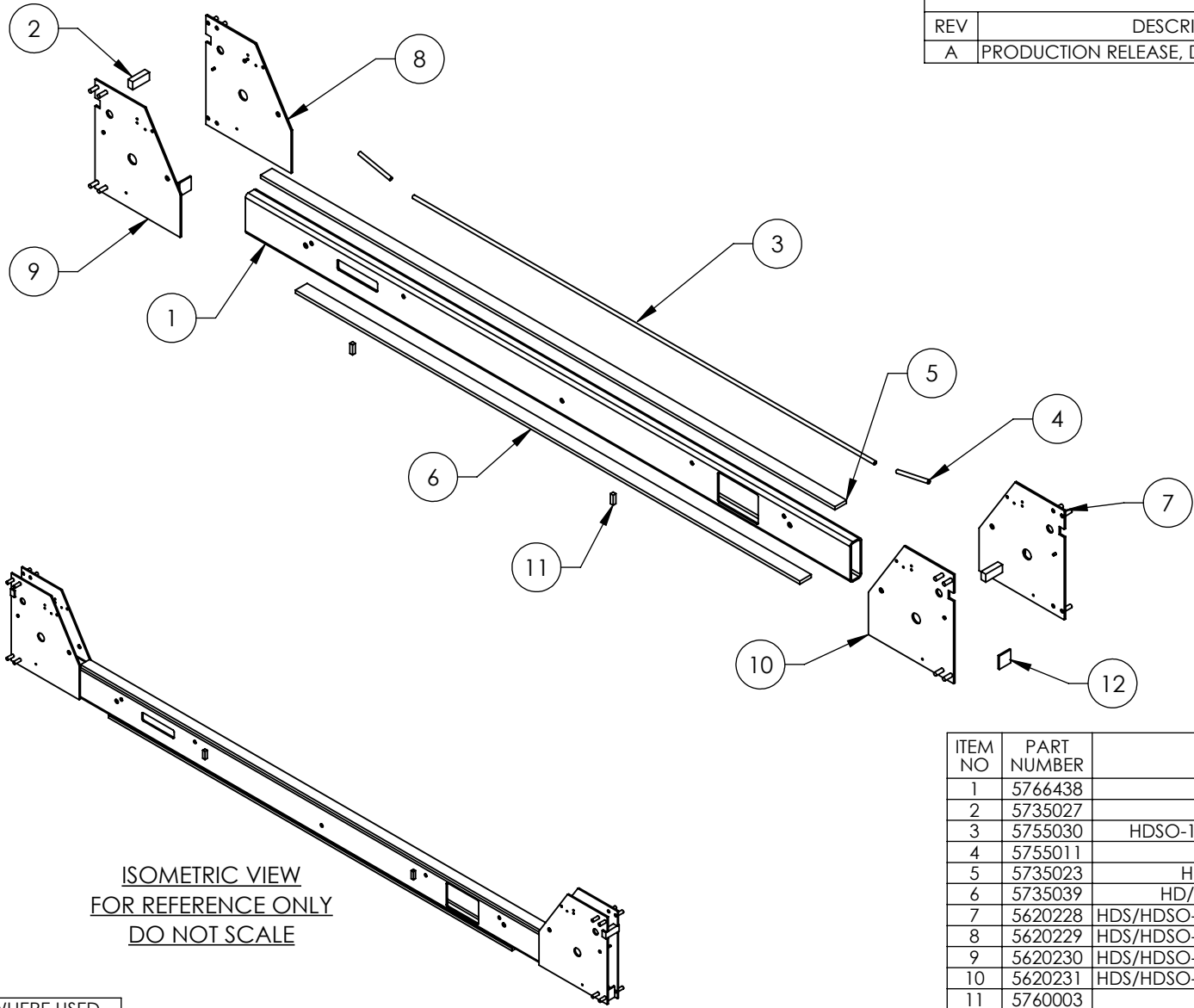
NOTE: UNLESS OTHERWISE SPECIFIED.

1. REFER TO MODEL FOR ADDITIONAL INFORMATION
2. BREAK AND DEBURR ALL SHARP EDGES 0.3mm
3. REMOVE ALL WELD SPLATTER
4. DIMENSIONS SHOWN ARE AFTER PAINTING
5. PAINT GRAY (RAL-7024) 20% GLOSS

NEXT ASSEMBLY
5216143

DO NOT SCALE DRAWING		NAME	DATE	 BendPak.	
DIMENSIONS ARE IN MM TOLERANCES: 0. = ±1.5 0.0 = ±0.5		DRAWN	TM	09/22/2016	
		CHECKED	OR	1/11/2021	
		THIRD ANGLE PROJECTION		TITLE:	
SURFACE FINISH 1.6 ISO Ra µm FOR MACHINED SURFACES UNLESS OTHERWISE SPECIFIED				1645 LEMONWOOD DR. SANTA PAULA, CA 93060	
		PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF BENDPAK INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.		HDSO-14 RIGHT CARRIAGE WELDMENT	
				SIZE DWG. NO.	
7		 A		5601111	E
		SCALE: 1:8			SHEET 1 OF 3

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
A	PRODUCTION RELEASE, DERIVED FROM 5600284	04/29/2022	TM	01414



ISOMETRIC VIEW
FOR REFERENCE ONLY
DO NOT SCALE

WHERE USED
HDSO-14 SERIES

NOTE: UNLESS OTHERWISE SPECIFIED.

- 1. REFER TO MODEL FOR ADDITIONAL INFORMATION
- 2. BREAK AND DEBURR ALL SHARP EDGES 0.3mm
- 3. REMOVE ALL WELD SPLATTER
- 4. DIMENSIONS SHOWN ARE AFTER PAINTING
- 5. PAINT GRAY (RAL-7024) 20% GLOSS

NEXT ASSEMBLY
5216144

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5766438	HDSO-14 CROSSTUBE	1	A
2	5735027	CROSSTUBE SAFETY BLOCK	2	B
3	5755030	HDSO-14 LONG CROSSTUBE AIR SAFETY TROUGH	1	A
4	5755011	SMALL AIR SAFETY TROUGH	2	B
5	5735023	HD-14 SERIES TOP CROSS TUBE STRAP	1	D
6	5735039	HD/HDSO-14 BOTTOM CROSS TUBE STRAP	1	D
7	5620228	HDS/HDSO-14 CROSSTUBE END PLATE SUBWELDMENT #1	1	K
8	5620229	HDS/HDSO-14 CROSSTUBE END PLATE SUBWELDMENT #2	1	J
9	5620230	HDS/HDSO-14 CROSSTUBE END PLATE SUBWELDMENT #3	1	H
10	5620231	HDS/HDSO-14 CROSSTUBE END PLATE SUBWELDMENT #4	1	J
11	5760003	D4-12, HD-12/14 RAMP STOP	2	C
12	5735073	D4-12, HD-7/9, HDS/HDSO-14 CARRIAGE TIE BLOCK	2	C

DO NOT SCALE DRAWING

DIMENSIONS ARE IN MM
TOLERANCES:
0. = ±1.5
0.0 = ±0.5

SURFACE FINISH 1.6 ISO Ra µm
FOR MACHINED SURFACES
UNLESS OTHERWISE SPECIFIED

DRAWN
CHECKED

NAME
TM

DATE
04/29/2022

THIRD ANGLE PROJECTION

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THE WRITTEN PERMISSION OF BENDPAK INC. IS
PROHIBITED.

BendPak.
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

TITLE:
HDSO-14 CROSSTUBE
WELDMENT

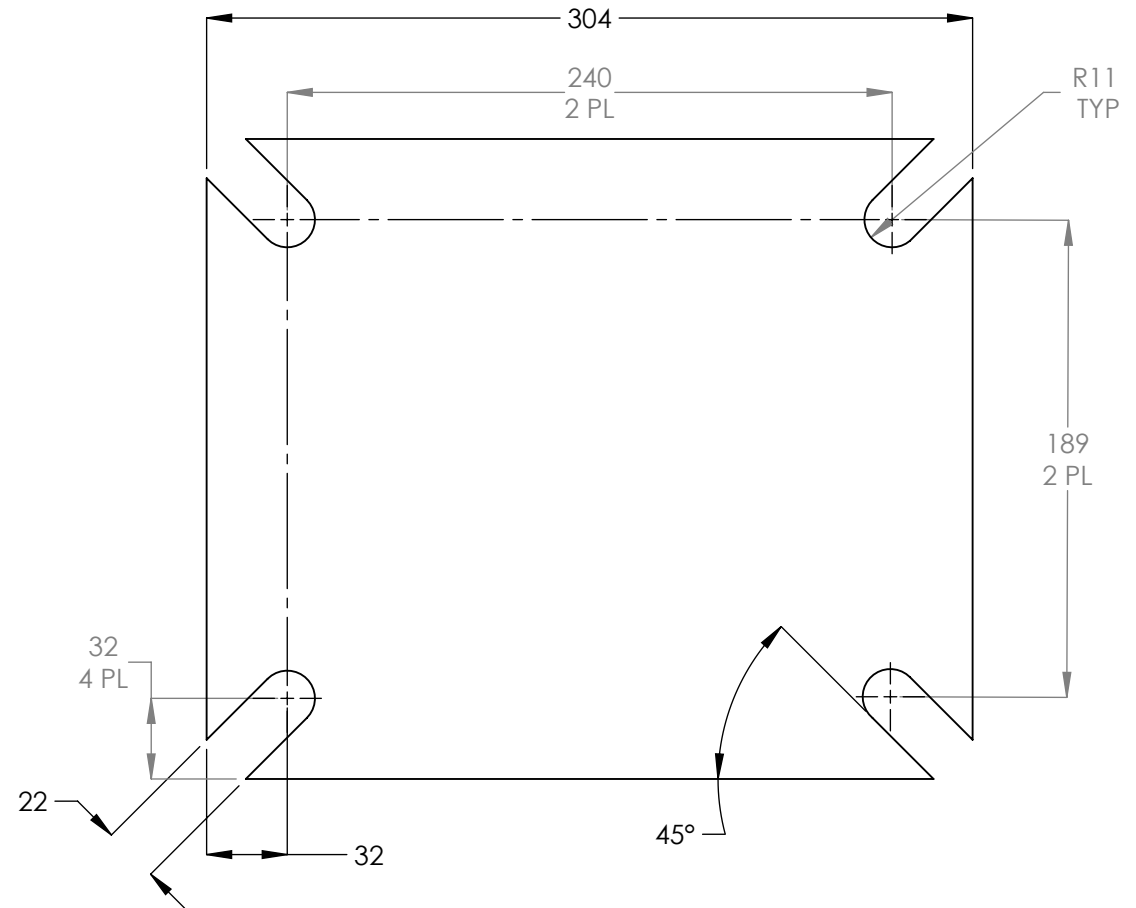
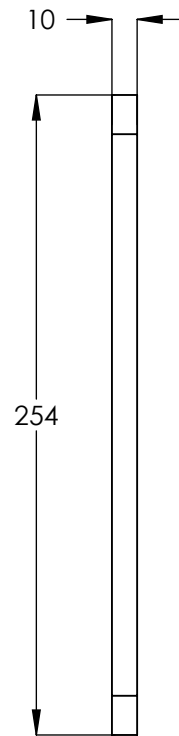
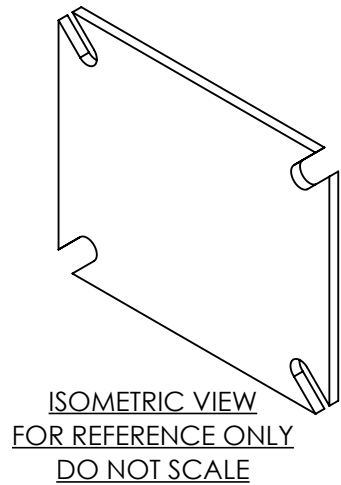
SIZE DWG. NO.
A 5601816

REV
A

SCALE: 1:20

SHEET 1 OF 3

REVISION				
REV	DESCRIPTION	DATE	EDITED BY	ECO#
A	PRODUCTION RELEASE, DERIVED FROM 5731632	01/20/2017	TS	00798
A-001	UPDATED NEXT ASSEMBLIES	04/20/2018	CA	00941



WHERE USED
HD-7 SERIES
HD-9 SERIES
HD-14T
HDS-14 SERIES
D4-12 SERIES
PL-12000DP

NOTE: UNLESS OTHERWISE SPECIFIED.

1. REFER TO MODEL FOR ADDITIONAL INFORMATION
2. BREAK AND DEBURR ALL SHARP EDGES 0.3mm
3. **MATERIAL:** HR ASTM A36 OR Q235 GB/T 700

NEXT ASSEMBLY		
5601126	5601158	5601865
5601127	5601159	5601866
5601133	5601410	5601867
5601134	5601739	5620605
5601135	5601740	5620606
5601136	5601780	5620669
5601137	5601859	5620670
5601138	5601860	5601779
5601139	5601863	
5601140	5601864	

DO NOT SCALE DRAWING		NAME	DATE	1645 LEMONWOOD DR. SANTA PAULA, CA 93060
DIMENSIONS ARE IN MM TOLERANCES: 0. = ±1.5 0.0 = ±0.5		DRAWN	TS	
SURFACE FINISH 1.6 ISO Ra µm FOR MACHINED SURFACES UNLESS OTHERWISE SPECIFIED		CHECKED	CA	
THIRD ANGLE PROJECTION				TITLE:
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF BENDPAK INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.		4 POST BASE PLATE		SIZE DWG. NO.
		A 5731045		REV
		SCALE: 1:3		A SHEET 1 OF 1

PART SPECIFICATION FORM STANDARD

BENDPAK Number:	5900001
MRP Description:	HDSO-14P/14AX INSTALLATION MANUAL
Date:	11/20/2020
ECO :	---

1. Engineering Specification

Application:
INSTALLATION MANUAL

Detailed Description:

⚠ WARNING

EUROPEAN USERS
400V 50Hz SUPPLY DETAILS ARE INCLUDED WITH ELECTRICAL CONTROL BOX. DISREGARD SUPPLY WIRING DETAILS IN THIS MANUAL.

IMPORTANT SAFETY INSTRUCTIONS
SAVE THESE INSTRUCTIONS
PLEASE READ THE ENTIRE CONTENTS OF THIS MANUAL PRIOR TO INSTALLATION AND OPERATION. BY PROCEEDING WITH LIFT INSTALLATION AND OPERATION YOU AGREE THAT YOU FULLY UNDERSTAND AND COMPREHEND THE FULL CONTENTS OF THIS MANUAL. FORWARD THIS MANUAL TO ALL OPERATORS. FAILURE TO OPERATE THIS EQUIPMENT AS DIRECTED MAY CAUSE INJURY OR DEATH.

Revision B - November 2020
Part Number 5900001

INSTALLATION AND OPERATION MANUAL

FOUR-POST OPEN FRONT ALIGNMENT LIFTS
COMMERCIAL GRADE
14,000 LBS. CAPACITY

Models:

- HDSO-14P
- HDSO-14AX



Keep this operation manual near the machine at all times. Make sure that ALL USERS read this manual.

RECEIVING

The shipment should be thoroughly inspected as soon as it is received. The signed Bill of Lading is acknowledgement by the shipping carrier as receipt of this product as listed in your invoice as being in a good condition of shipment. If any of these goods listed on this Bill of Lading are missing or damaged, do not accept goods until the shipping carrier makes a notation on the freight bill of the missing or damaged goods. Do this for your own protection.

BE SAFE

Your new lift was designed and built with safety in mind. However, your overall safety can be increased with proper training and thoughtful operation on the part of the operator. DO NOT operate or repair this equipment without reading this manual and the important safety instructions shown inside. Keep this operation manual near the lift at all times. Make sure that ALL USERS read and understand this manual.



1645 Lemonwood Dr.
Santa Paula, CA 93060, USA
Toll Free 1-800-253-2363
Tel: 1-805-933-9970
Fax: 1-805-933-9160
www.bendpak.com

Print Settings for BendPak Manuals

Unless otherwise specified, use these settings for printing BendPak manuals:

Color: Black and white.

Size: A4 (210 to 297 mm), 8.5 by 11 inches (216 to 279 mm), or between

Binding: Saddle stitched

Paper: 100 to 120 gsm (27 to 32 pound), uncoated

2. Vendor Information (Or for Reference)

Approved Vendor	Vendor Part #	Contact #	Preferred Vendor
1)			
OR BENDPAK ENGINEERING APPROVED EQUIVALENT			

4 Post Lifts Product Decal Positioning



CLEAR ADHESIVE PET DOES NOT PRINT YELLOW.

Total of 6

PN 5905311

BPK Post Branding Decal-Large.pdf:

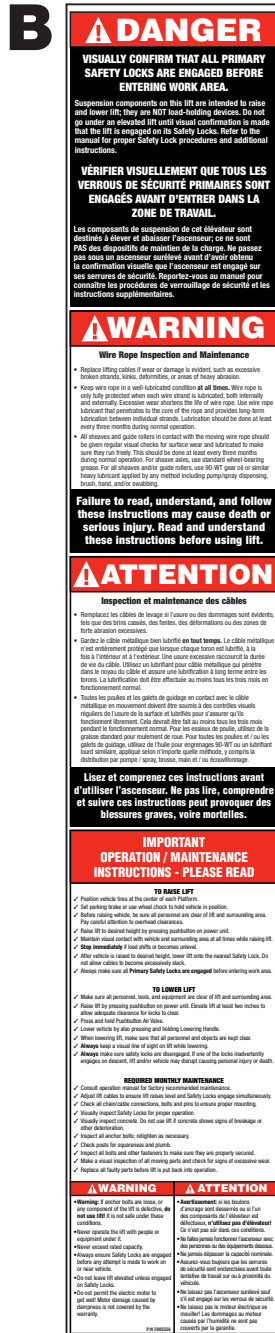
Size: 4.25"W x 38"H

Material: 4 Mil Clear Adhesive PET

Finish: Matte Overlamine (No gloss)

Print Process: Silk Screen, 85 line-screen
(Yellow color in file represents what should be clear PET material and SHOULD NOT print as Yellow ink. White area in file represents Opaque White ink.)

Lamination: Clear laminate non-glare medium matte over-lamine (No gloss) for abrasion, chemical and ultra violet protection.



PN 5905556

4-Post Safety-Operation Decal FRE-ENG.pdf:

Size: 4"W x 24"H

Material: 4 Mil. Permanent White Adhesive Vinyl

Ink: U.V. protected CMYK 2/C Process

Finish: Matte Overlamine (No gloss)

Print Process: Offset Lithography - 200 line-screen or 300 p.p.i. for digital

Lamination: Clear laminate non-glare medium matte over-lamine (No gloss) for abrasion, chemical and ultra violet protection.



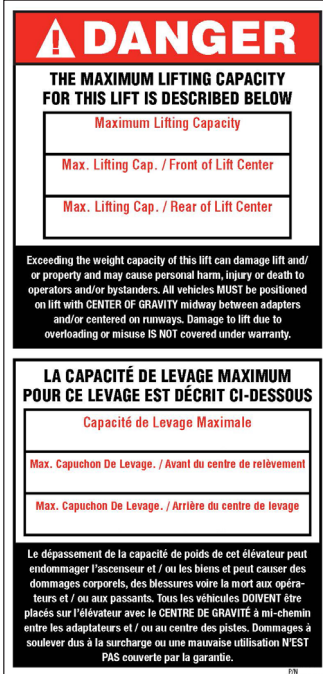
PN 5905103

ALI_4_Post_labels.pdf:
(Order Labels from ALI)

IMPORTANT: Please use materials as instructed

4 Post Lifts Product Decal Positioning

***D**



P/N 5905401 - Max Cap. Danger 7k
 P/N 5905695 - Max. Cap. Danger 7500
 P/N 5905402 - Max Cap. Danger 9k
 P/N 5905557 - Max. Cap. Danger 14K
 P/N 5905406 - Max Cap. Danger 18k
 P/N 5905407 - Max. Cap. Danger 27K
 P/N 5905408 - Max. Cap. Danger 35K
 P/N 5905068 - Max. Cap. Danger 37K
 P/N 5905409 - Max. Cap. Danger 40K

***Max. Cap. Danger ENG-FRE.pdf:**

Size: 4"W x 8.5"H

Material: 4 Mil. Permanent White Adhesive Vinyl

Ink: U.V. protected CMYK 2/C Process

Finish: Matte Overlamine (No gloss)

Print Process: Offset Lithography - 200 line-screen or 300 p.p.i. for digital

Lamination: Clear laminate non-glare medium matte over-lamine (No gloss) for abrasion, chemical and ultra violet protection.

***E**



***NRTL_Lifting_Cap_ENG-FRE_.pdf:**

Size: 4.5"W x 3.25"H

Material: 4 Mil. Permanent White Adhesive Vinyl

Ink: U.V. protected CMYK 2/C Process

Finish: Matte Overlamine (No gloss)

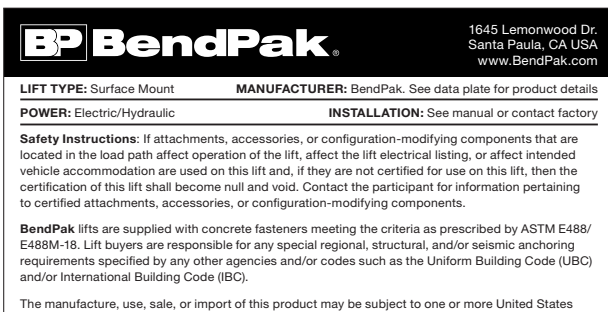
Print Process: Offset Lithography - 200 line-screen or 300 p.p.i. for digital

Lamination: Clear laminate non-glare medium matte over-lamine (No gloss) for abrasion, chemical and ultra violet protection.

P/N 5905645 - NRTL_Lifting_Cap_Label_7K
 P/N 5905700 - NRTL_Lifting_Cap_Label_7500
 P/N 5905650 - NRTL_Lifting_Cap_Label_9k
 P/N 5905665 - NRTL_Lifting_Cap_Label_14k
 P/N 5905675 - NRTL_Lifting_Cap_Label_18k
 P/N 5905680 - NRTL_Lifting_Cap_Label_27k
 P/N 5905685 - NRTL_Lifting_Cap_Label_35K
 P/N 5905067 - NRTL_Lifting_Cap_Label_37K
 P/N 5905690 - NRTL_Lifting_Cap_Label_40K

***DEPENDS ON LIFT
 MODEL AND CAPACITY**

F



Product_Data_Label_5905940-New.pdf: PN 5905940

Size: 4.5"W x 2.3"H

Material: 4 Mil. Permanent White Adhesive Vinyl

Ink: U.V. protected CMYK 2/C Process

Finish: Matte Overlamine (No gloss)

Print Process: Offset Lithography - 200 line-screen or 300 p.p.i. for digital

Lamination: Clear laminate non-glare medium matte over-lamine (No gloss) for abrasion, chemical and ultra violet protection.

G



ALI_Notice_Label.jpg

PN 5905377

Size: 3"W x 1.75"H

(Order Label from ALI)

IMPORTANT: Please use materials as instructed

4 Post Lifts Product Decal Positioning

H



Slipper_When_Wet_Label-5905138.pdf: PN 5905138

Size: 4.5"W x 2.5"H

Material: 4 Mil. Permanent White Adhesive Vinyl

Ink: U.V. protected CMYK 2/C Process

Finish: Matte Overlamine (No gloss)

Print Process: Offset Lithography - 200 line-screen or

300 p.p.i. for digital

Lamination: Clear laminate non-glare medium matte over-laminate (No gloss) for abrasion, chemical and ultra violet protection.

I



ALI Gold Label - MET C-US PN 5905654

****FOR ALI APPROVED LIFTS ONLY**

J

BP BendPak Santa Paula, CA USA www.bendpak.com	
MODEL NUMBER	
DESCRIPTION	
LIFT CAPACITY	DATE CODE
ROLLING JACK MAX CAP.	MAX PSI / BAR
VOLTAGE	SERIAL NUMBER
☐ 110-240V, 50-60 Hz, 1 Ph ☐ 208-240V, 50-60 Hz, 1 Ph ☐ 380-415V, 50-60 Hz, 3 Ph ☐ 208-440V, 50-60 Hz, 3 Ph	UPC
DANGER! Disconnect Power Before Servicing WARRANTY VOID IF DATA PLATE IS REMOVED PN 5905953	

PN 5905953

2017_Serial_Tag-D.jpg:

Size: 3"W x 3"H

Material: 2 Mil. Matte Silver Polyester (Flex-PSE)

Print using thermal transfer printer with resin ribbon

Ink: 1 Color-Black

CE APPROVED LIFTS ONLY

K

BP BendPak Santa Paula, CA USA www.bendpak.com	
MODEL NUMBER	
DESCRIPTION	
LIFT CAPACITY	DATE CODE
ROLLING JACK MAX CAP.	MAX PSI / BAR
VOLTAGE	SERIAL NUMBER
☐ 110-240V, 50-60 Hz, 1 Ph ☐ 208-240V, 50-60 Hz, 1 Ph ☐ 380-415V, 50-60 Hz, 3 Ph ☐ 208-440V, 50-60 Hz, 3 Ph	UPC
DANGER! Disconnect Power Before Servicing WARRANTY VOID IF DATA PLATE IS REMOVED PN 5905952	

PN 5905952

2017_Serial_Tag-C.jpg:

Size: 3"W x 3"H

Material: 2 Mil. Matte Silver Polyester (Flex-PSE)

Print using thermal transfer printer with resin ribbon

Ink: 1 Color-Black

NON-CE APPROVED LIFTS ONLY

IMPORTANT: Please use materials as instructed

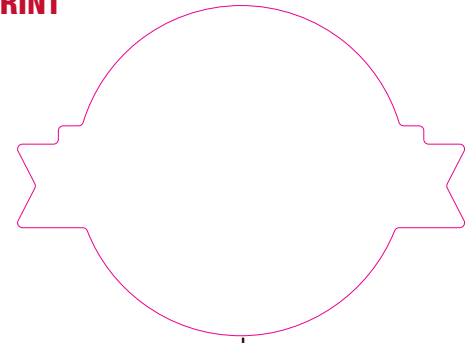
4 Post Lifts Product Decal Positioning

L



GRAY DOES NOT PRINT

PN 5906044



DIE-CUT LINE
DOES NOT PRINT

American_Owned_50_Years_Logo.pdf:

Trim: 4"W x 3"H

Material: 4 Mil. Permanent White Adhesive Vinyl

Ink: U.V. protected CMYK 4/C Process

Finish: Matte Overlamine (No Gloss)

Print Process: Offset Lithography - 200 line-screen or 300 p.p.i. for digital

Lamination: Clear Laminate non-glare medium matte over laminate for abrasion, chemical, and ultra violet protection

M

CALIFORNIA PROPOSITION 65



WARNING

WARNING! This product can expose you to chemicals including styrene and vinyl chloride which are on the list of over 900 chemicals identified by the State of California to cause cancer, birth defects or reproductive harm. ALWAYS use this product in accordance with the manufacturer's instructions.

For more information, go to
www.p65warnings.ca.gov.

PN 5905775

Prop_65_Label.pdf:

Size: 1.5"W x 1.5"H

Material: 4 Mil. Permanent White Adhesive Vinyl

Ink: U.V. protected CMYK 2/C Process

Finish: Matte Overlamine (No gloss)

Print Process: Offset Lithography - 200 line-screen or 300 p.p.i. for digital

Lamination: Clear laminate non-glare medium matte over-lamine (No gloss) for abrasion, chemical and ultra violet protection.

PN 5905775

IMPORTANT: Please use materials as instructed

4 Post Lifts Product Decal Positioning

**SEE NEXT PAGE
FOR LABEL
PLACEMENT HEIGHT**

****FOR ALL APPROVED
LIFTS ONLY**

M, E, C

**Back of Post
(Top to Bottom)**

**G, D, I,
J or K, F**

**Front of Post
(Top to Bottom)**

B
Side of Post

A
(Front & Back of post)

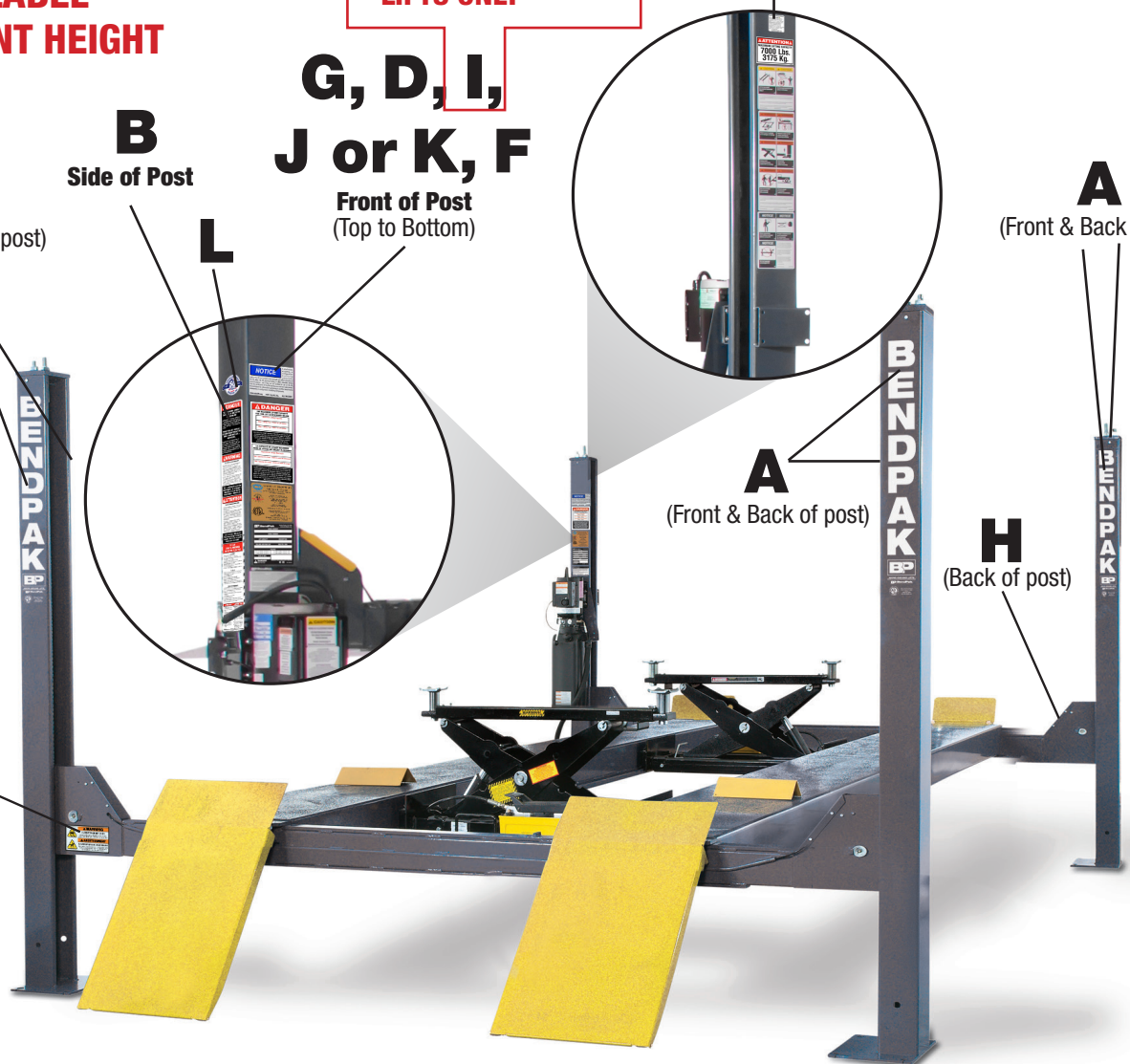
L

A
(Front & Back of post)

A
(Front & Back of post)

H
(Back of post)

H
(Also on other side of lift)



4 Post Lifts Product Decal Positioning

Views of Powerside Post

BACK OF POST

SIDE OF POST

FRONT OF POST

