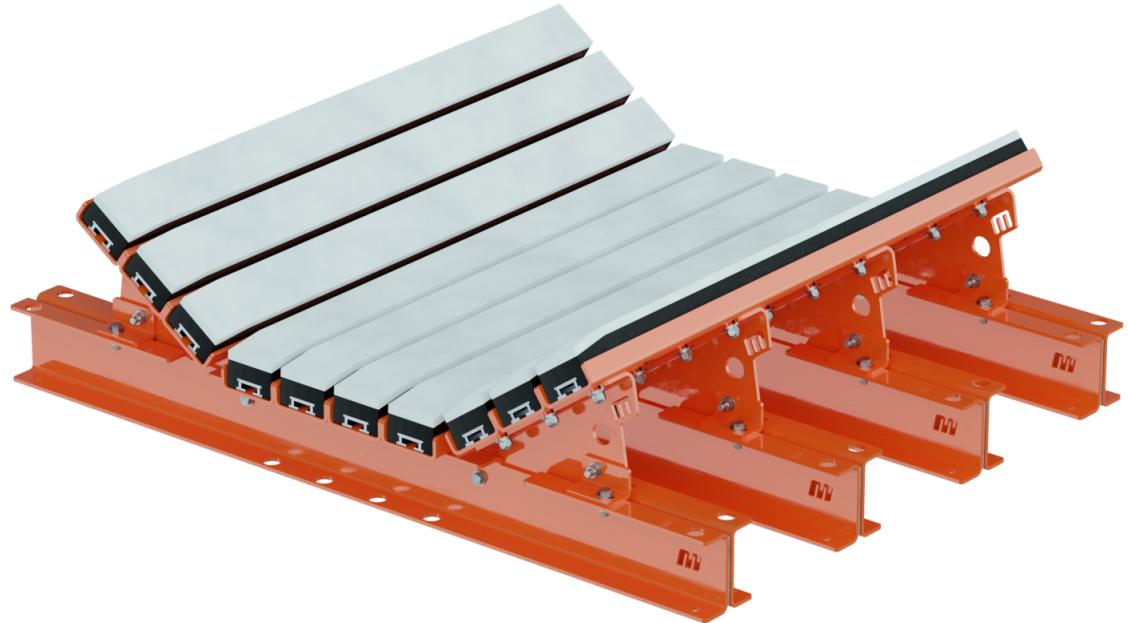


martin[®]

Martin[®] Impact Cradles LD and MD

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***Operator's Manual
M3493***

Important

MARTIN ENGINEERING HEREBY DISCLAIMS ANY LIABILITY FOR: DAMAGE DUE TO CONTAMINATION OF THE MATERIAL; USER'S FAILURE TO INSPECT, MAINTAIN AND TAKE REASONABLE CARE OF THE EQUIPMENT; INJURIES OR DAMAGE RESULTING FROM USE OR APPLICATION OF THIS PRODUCT CONTRARY TO INSTRUCTIONS AND SPECIFICATIONS CONTAINED HEREIN. MARTIN ENGINEERING'S LIABILITY SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF EQUIPMENT SHOWN TO BE DEFECTIVE.

Observe all safety rules given herein along with owner and Government standards and regulations. Know and understand lockout/tagout procedures as defined by American National Standards Institute (ANSI) ANSI/ASSP z244.1-2024, *The Control of Hazardous Energy Lockout, Tagout And Alternative Methods and Occupational Safety* and Health Administration (OSHA) Federal Register, Title 29 Subtitle B Chapter XVII Subpart J 1910.147, *Control of Hazardous Energy Source (Lockout/Tagout)*; Final Rule.

The following symbols may be used in this manual:



Danger: Immediate hazards that will result in severe personal injury or death.



Warning: Hazards or unsafe practices that could result in personal injury.



Caution: Hazards or unsafe practices that could result in product or property damages.



Important: Instructions that must be followed to ensure proper installation/operation of equipment.



Note: General statements to assist the reader.

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Introduction

General

The Martin® Impact Cradles LD and MD are layered, shock-absorbing conveyor belt transfer point products engineered for use in bulk solids handling industries.

References

The following documents are referenced in this manual:

- American National Standards Institute ANSI/ASSP Z244.1-2024, *The Control of Hazardous Energy Lockout, Tagout and Alternative Methods* American National Standards Institute, Inc., 1180 6th Ave, 10th Floor New York, NY 10036.
- Federal Register, Title 29 Subtitle B Chapter XVII Subpart J 1910.147, *Control of Hazardous Energy Source (Lockout/Tagout); Final Rule*, Department of Labor, Occupational Safety and Health Administration (OSHA), 32nd Floor, Room 3244, 230 South Dearborn Street, Chicago, IL 60604.

Impact Cradle Materials

Materials and specifications for the Martin® Impact Cradles are shown in Table I.

Table I. Impact Cradle Materials and Specifications

Characteristics		Bar With UHMW Top
MSHA-Accepted for Underground Use		NA
Coefficient of Friction		0.5
Service Temperature		-20 to 140°F (-29 to 60°C)
Bar Construction	Bearing Layer	UHMW Polyethylene
	Absorption Layer	60 A-Durometer Rubber
	T-Slot	Aluminum
	Fasteners	0.5-in. dia. T-Bolts

Safety

All safety rules defined in the above documents and all owner/employer safety rules must be strictly followed when working on this equipment.

Materials required

Only standard hand tools are required to assemble and service this equipment.

Before Installing Impact Cradle

IMPORTANT

The delivery service is responsible for damage occurring in transit. Martin Engineering CANNOT enter claims from damages. Contact your transportation agent for more information

1. Inspect shipping container for damage. Report damage to delivery service immediately and fill out delivery service's claim form. Keep any damaged goods subject to examination.
2. Remove Martin® Impact Cradle from shipping containers. Equipment in container should include the following:
 - Martin® Impact Cradle LD or MD Assembly
 - Two Conveyor Products Warning Labels, P/N 23395
3. If anything is missing or damaged, contact Martin Engineering or a representative.
4. Make sure belt is centered on conveyor.



⚠ WARNING

Before installing equipment, turn off and lock out/tag out energy source to conveyor and conveyor accessories.

5. Turn off and lock out/tag out energy source according to ANSI standards (see "References").



⚠ WARNING

If equipment will be installed in an enclosed area, gas level or dust content must be tested before using a cutting torch or welding. Using a cutting torch or welding in an area with gas or dust may cause an explosion.

6. If using a cutting torch or welding, test atmosphere for gas level or dust content. Cover conveyor belt with fire retardant cover.
7. If not already present, install an impact idler 1 in. (25 mm) ahead of and 1 in. (25 mm) behind Martin® Impact Cradle location.
8. Remove any unnecessary idlers. (The Martin® Impact Cradle can replace up to four impact idlers.)

Installing Impact Cradle

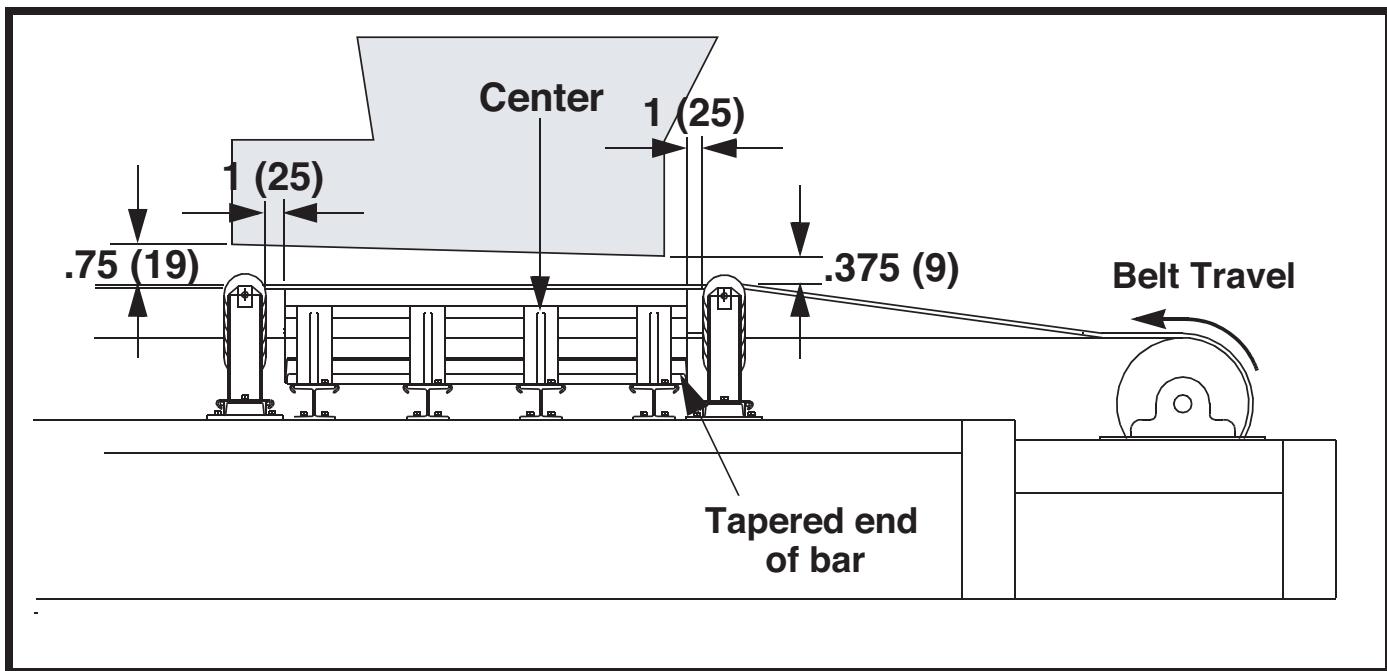
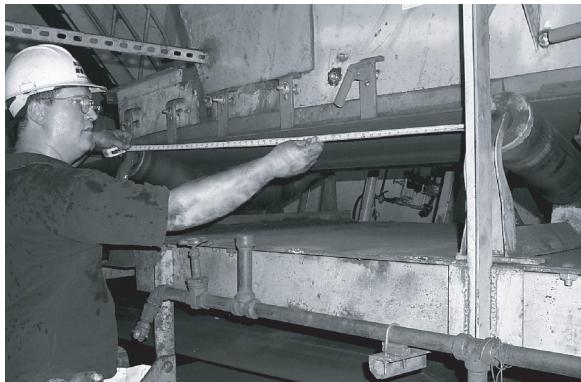


Figure 1. Measuring for Martin® Impact Cradles



Measuring Location

1. See Figure 1. Make sure chute walls and/or wear liners are correct distance above belt as shown. If necessary, modify chute walls and/or wear liners.
2. Mark center of loading point on stringer; both sides of belt.
3. Install an idler 1 in. (25 mm) before and 1 in. (25 mm) after Martin® Impact Cradle.
4. Measure and align either first cross-support beam or second cross-support beam from tail pulley with center of loading point.

Installing Impact Bars



1. Slide cross-supports under belt in pre-determined location and align with marks.
2. Make sure base weldment cross-supports are perpendicular to belt, or bars will wear unevenly and maintenance will be difficult. Make sure center bars are centered below belt and are parallel to belt travel.
3. Make sure distance from top of center bar to bottom surface of belt measures 1/4 in. (6mm) (see Figure 2). If distance is greater than this, add shims under base weldment to raise impact cradle to height of adjacent idlers. (Shim Kit, P/N 34163 is available from Martin Engineering.) If distance is less than this, contact Martin Engineering or a representative.

NOTE

Martin Engineering recommends bolting rather than welding base weldment to stringers for easier accessibility and maintenance.

4. Bolt or weld base weldment to stringers as follows:
 - a. If bolting, drill or cut 9/16-in. holes in stringers through mounting holes in feet of base weldment cross-supports. Install hex head cap screw, flat washer, compression washer, and hex nut (Figure 2) in each hole to secure base weldment to stringers.
 - b. If welding, clean stringer of rust and dirt. Then stitch weld I-beams to stringers.
5. Bolt or weld base weldment to stringers as follows:

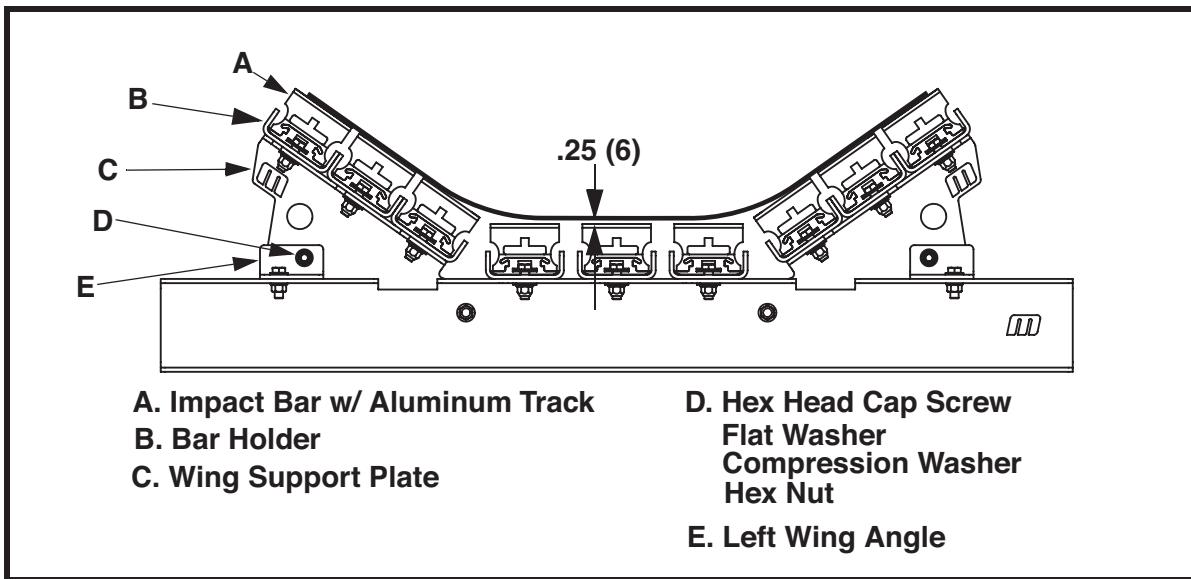


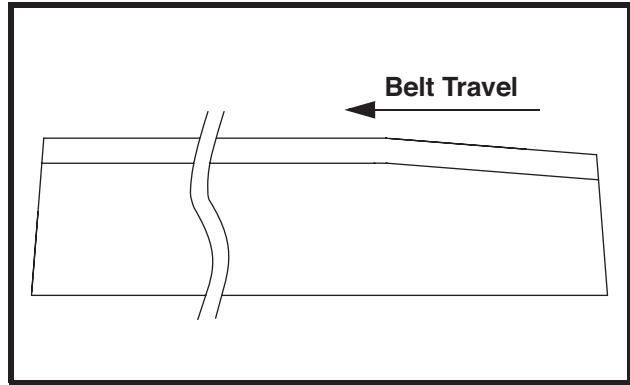
Figure 2. Installing Martin® Impact Cradles



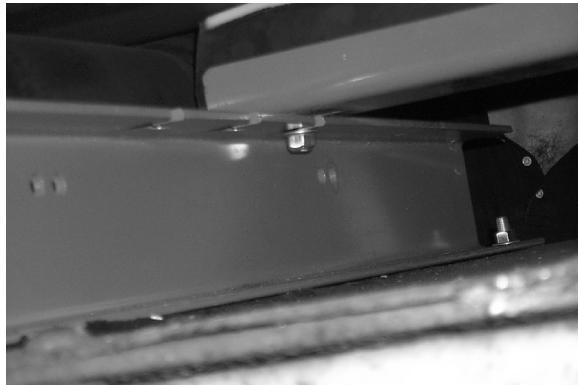
6. Measure the distance from the idler to the first cross member bolt. Verify the dimensions and tighten the bolt into place. (Refer to Figure 3 for Martin® Impact Cradle LD dimensions and Figure 4 for Martin® Impact Cradle MD dimensions.)



7. Measure between cross support channels. Make sure the cross-support is square.
8. Tighten bolts.
9. Repeat for remaining cross support channels.



10. Install impact bars. Tapered ends of bars must be located as shown.



11. Line bolts up with slots and repeat for remaining cross sections. Tighten bolts.
12. Repeat for additional center bars.



13. Bolt wings in the correct holes but do not tighten.



14. Bolt on the fine tune adjustment angle but do not tighten.
15. Bolt on the eccentric angle adjuster but do not tighten.

NOTE

Proper hole selection is important in obtaining the desired troughing angle (e.g., 20°, 35°, 45°).



16. Install impact bars on wings.



17. Rotate fine adjustment cam until wing bars are touching belt.
18. Tighten bolts.
19. Repeat steps 9–19 for opposite side.

After Installing Impact Cradle

IMPORTANT

Read entire section before beginning work.

1. Thoroughly wipe outside chute walls clean above Martin® Impact Cradle on both sides of chute. Place a Conveyor Products Warning Label (P/N 23395) on each chute wall visible to belt operator.



⚠ WARNING

Failure to remove tools from installation area and conveyor belt before turning on energy source can cause serious injury to personnel and damage to belt.

2. Remove all tools and fire retardant cover from installation area and conveyor belt.



⚠ DANGER

Do not touch or go near conveyor belt or conveyor accessories when conveyor belt is running. Body or clothing can get caught and pull body into conveyor belt, causing severe injury or death.

3. Turn on conveyor belt.



⚠ WARNING

Before adjusting Impact cradle, turn off and lock out/tag out energy source to conveyor belt and conveyor accessories.

4. After 1 hour of operation, turn off and lock out/tag out energy source according to ANSI standards (see “References”).
5. Make sure all fasteners are tight. Tighten if necessary.
6. Inspect impact bars for wear. (A small amount of “break-in” wear may be found. This will stop once the bars wear to conveyor belt contour.)
7. If excessive wear, uneven wear, or some other problem exists, see “Troubleshooting/ Installation Checklist.”

Maintenance

IMPORTANT

Read entire section before beginning work.

WARNING

Before servicing impact cradle, turn off and lock out/tag out energy source to conveyor belt and conveyor accessories.

1. Turn off and lock out/tag out energy source according to ANSI standards (see "References").
2. Make sure all fasteners are tight. Tighten if necessary.
3. Check bars for wear. If light-colored top covering on bars is worn through to orange urethane, replace bars as follows:
 - a. If center bars are worn:
 - (1) Remove wing assemblies with bars by removing bolts and set aside for reinstallation.
 - (2) Loosen bolts on impact bars up to and including the worn bars.
 - (3) Remove impact bar and bar holder.
 - (4) Replace worn bars on bar holders and reinstall in reverse order.
 - b. If wing bars are worn:
 - (1) Loosen wing assemblies with bars by removing bolts and slide towards the side of the belt.
 - (2) Loosen bolts on worn impact bars.
 - (3) Remove impact bar and bar holder.
 - (4) Replace worn bars on bar holders and reinstall in reverse order.
4. Remove fines between impact bars with broom or high-pressure air or water.
5. Inspect impact cradle for cracks or fatigue. Weld or strengthen structure as necessary.
6. Wipe warning labels clean. If labels are not readable, contact Martin Engineering or a representative for replacements.

WARNING

Failure to remove tools from installation area and conveyor belt before turning on energy source can cause serious injury to personnel and damage to belt.

7. Remove all tools and fire retardant cover from installation area and conveyor belt.

DANGER

Do not touch or go near conveyor belt or conveyor accessories when conveyor belt is running. Body or clothing can get caught and pull body into conveyor belt, causing severe injury or death.

8. Start conveyor belt.

Troubleshooting/Installation Checklist

Troubleshooting If you are experiencing problems with Martin® Impact Cradle, see below:

Symptom	Corrective Action
High impact bar wear rate.	Impact cradle is installed too close to belt. Make sure Impact cradle center impact bars are 1/4 in. (6 mm) below belt.
Impact bars worn unevenly.	Belt is unevenly loaded, wear liners are improperly installed, and/or impact bars are not parallel to belt travel. Inspect loading area and wear liners, and modify transfer point if necessary.

Installation checklist

If after taking corrective actions suggested under “Troubleshooting” you are still experiencing problems, check for the following:

Installation Checklist
Chute walls and/or wear liners are 3/8 in. above belt at tail and 3/4 in. above belt at head.
Second or first I-beam of impact cradle aligns with center of loading point.
An idler is installed 1 in. (25 mm) before and 1 in. (25 mm) after Impact cradle.
Center impact bars are centered below belt and are parallel to belt travel.
Wing sections are aligned with idlers.
Distance from top of center impact bars to bottom of belt surface is 1/4 in. (6 mm).

Part Numbers

This section provides product names and corresponding part numbers for Martin® Impact Cradles LD and MD. Please reference part numbers when ordering parts.

Martin® Impact Cradles

Martin® Impact Cradle LD Assembly,
P/N 36010-XXX

Martin® Impact Cradle MD Assembly,
P/N 36318-XXX

Martin® Impact Cradle MD Assembly with 5 ft. bars,
P/N 36516-XXX

Martin® Wear Liner

P/N WL-XXXXXXXXXXXX. First four Xs indicate the height of wear liner in inches; next four Xs indicate length of wear liner in inches; next three Xs indicate thickness of wear liner in inches; last X indicates wear liner material.

Martin® Slider Cradles

Martin Slider Cradle: P/N 36700-XXX, for all size belts (18- to 72-in). First XX indicates belt width in inches; last X indicates standard cradle (S) or wide base cradle (W).

Miscellaneous

Shim Kit: P/N 34163

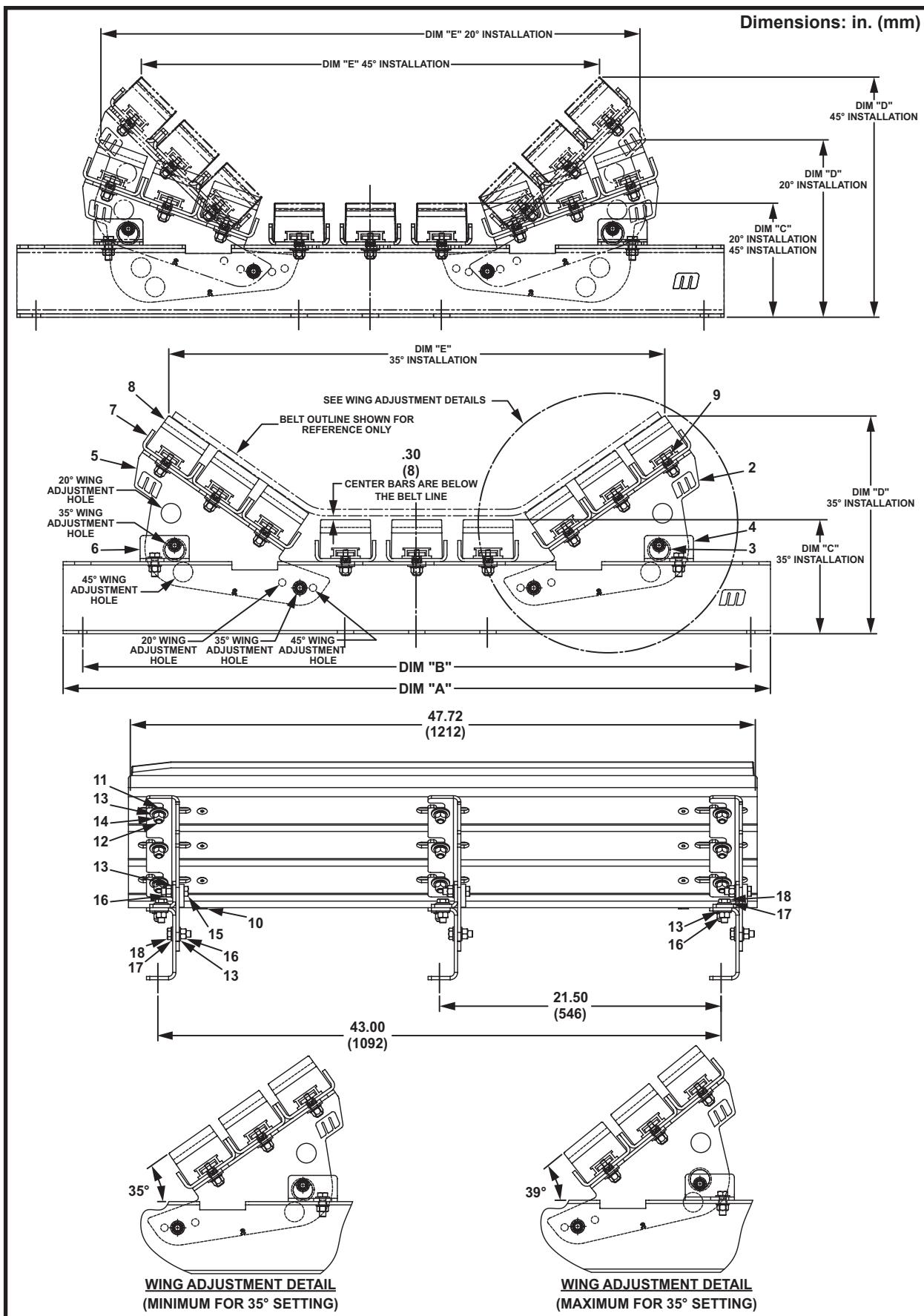


Figure 3. Martin® Impact Cradle LD Assembly, P/N 36010-XXX (Sheet 1 of 2)

Part Numbers

Item	Description	Part Number	Qty
1	Cross Support Channel	35990-XXX*	3
2	Wing Support Plate	Table II	3
3	Eccentric Adjustment	35994	6
4	Wing Adjustment Angle Right	35992-R	3
5	Wing Support Plate	Table II	3
6	Wing Adjustment Angle Left	35992-L	3
7	Bar Holder	35991	Table II
8	Rubber Impact Bar	31617	Table II
9	Plate Nut 3/8-16NC	37387	Table II
10	Screw HSFCHC 3/8-16NC x 1 BO (N)	32900	Table II
11	Washer Flat 1/2 Wide ZP	17328	Table II
12	T-Bolt 1/2-13NC x 1-1/2	31775	Table II
13	Washer Compression 1/2	11750	Table II
14	Nut Hex Top Lock 1/2-13NC ZP	36215	Table II
15	Screw HHC 1/2 - 13NC ZP x 1-3/4 ZP	36228	6
16	Nut Hex 1/2-13NC ZP	11771	18
17	Washer Flat 1/2 Narrow ZP	31010	12
18	Screw HHC 1/2 - 13NC x 1-1/2 ZP	11763	12
(NS) 19	Mounting Hardware	36229	1
(NS) 20	Operator's Manual	M3493	1
(NS) 21	Label Kit	34042	1

NS = Not Shown

Figure 3. Martin® Impact Cradle LD Assembly, P/N 36010-XXX (Sheet 2 of 2)

* First XX indicates Belt Width. Last X indicates Standard (S) or Wide (W) Base.

Table II. Martin® Impact Cradle LD, Part Numbers and Quantities

Part No.	P/N Item 2	P/N Item 5	QTY Items 7 & 8	QTY Items 9 & 10	QTY Items 11, 12 & 14	QTY Item 13
36010-24S	35993-2R	35993-2L	6	12	18	36
36010-24W	35993-2R	35993-2L	6	12	18	36
36010-30S	35993-2R-1	35993-2L-1	7	14	21	39
36010-30W	35993-2R-1	35993-2L-1	7	14	21	39
36010-36S	35993-2R	35993-2L	7	14	21	39
36010-36W	35993-2R	35993-2L	7	14	21	39
36010-42S	35993-3R	35993-3L	9	18	27	45
36010-42W	35993-3R	35993-3L	9	18	27	45
36010-48S	35993-3R	35993-3L	10	20	30	48
36010-48W	35993-3R	35993-3L	10	20	30	48

Table III. Martin® Impact Cradle LD, Dimensions (Part 1 of 2)

Part No.	Dim "A" in. (mm)	Dim "B" in. (mm)	Dim "C" in. (mm)	Dim "D" at 20° in. (mm)	Dim "D" at 35° in. (mm)	Dim "D" at 45° in. (mm)
36010-24S	36.00 (914)	33.00 (838)	8.203 (208)	11.55 (293)	13.66 (347)	14.81 (376)
36010-24W	42.00 (1067)	39.00 (991)	8.203 (208)	11.55 (293)	13.66 (347)	14.81 (376)
36010-30S	42.00 (1067)	39.00 (991)	8.203 (208)	11.73 (298)	13.89 (353)	15.03 (382)
36010-30W	48.00 (1219)	45.00 (1143)	8.203 (208)	11.73 (298)	13.89 (353)	15.03 (382)
36010-36S	48.00 (1219)	45.00 (1143)	8.203 (208)	11.55 (293)	13.66 (347)	14.81 (376)
36010-36W	54.00 (1372)	51.00 (1295)	8.203 (208)	11.55 (293)	13.66 (347)	14.81 (376)
36010-42S	54.00 (1372)	51.00 (1295)	8.703 (221)	13.54 (344)	16.62 (422)	18.33 (466)
36010-42W	60.00 (1524)	57.00 (1448)	8.703 (221)	13.54 (344)	16.62 (422)	18.33 (466)
36010-48S	60.00 (1524)	57.00 (1448)	8.703 (221)	13.54 (344)	16.62 (422)	18.33 (466)
36010-48W	66.00 (1676)	63.00 (1600)	8.703 (221)	13.54 (344)	16.62 (422)	18.33 (466)

Table III. Martin® Impact Cradle LD, Dimensions (Part 2 of 2)

Part No.	Dim "E" at 20° in. (mm)	Dim "E" at 35° in. (mm)	Dim "E" at 45° in. (mm)	Weight lbs (kg)
36010-24S	26.60 (676)	24.33 (618)	22.40 (569)	384 (174)
36010-24W	26.60 (676)	24.33 (618)	22.40 (569)	395 (179)
36010-30S	29.81 (757)	27.24 (692)	25.02 (636)	441 (200)
36010-30W	29.81 (757)	27.24 (692)	25.02 (636)	452 (205)
36010-36S	31.05 (789)	28.78 (731)	26.85 (682)	452 (205)
36010-36W	31.05 (789)	28.78 (731)	26.85 (682)	463 (210)
36010-42S	41.16 (1045)	37.86 (962)	34.98 (889)	569 (258)
36010-42W	41.16 (1045)	37.86 (962)	34.98 (889)	580 (263)
36010-48S	43.34 (1101)	40.04 (1017)	37.16 (944)	626 (283)
36010-48W	43.34 (1101)	40.04 (1017)	37.16 (944)	637 (288)

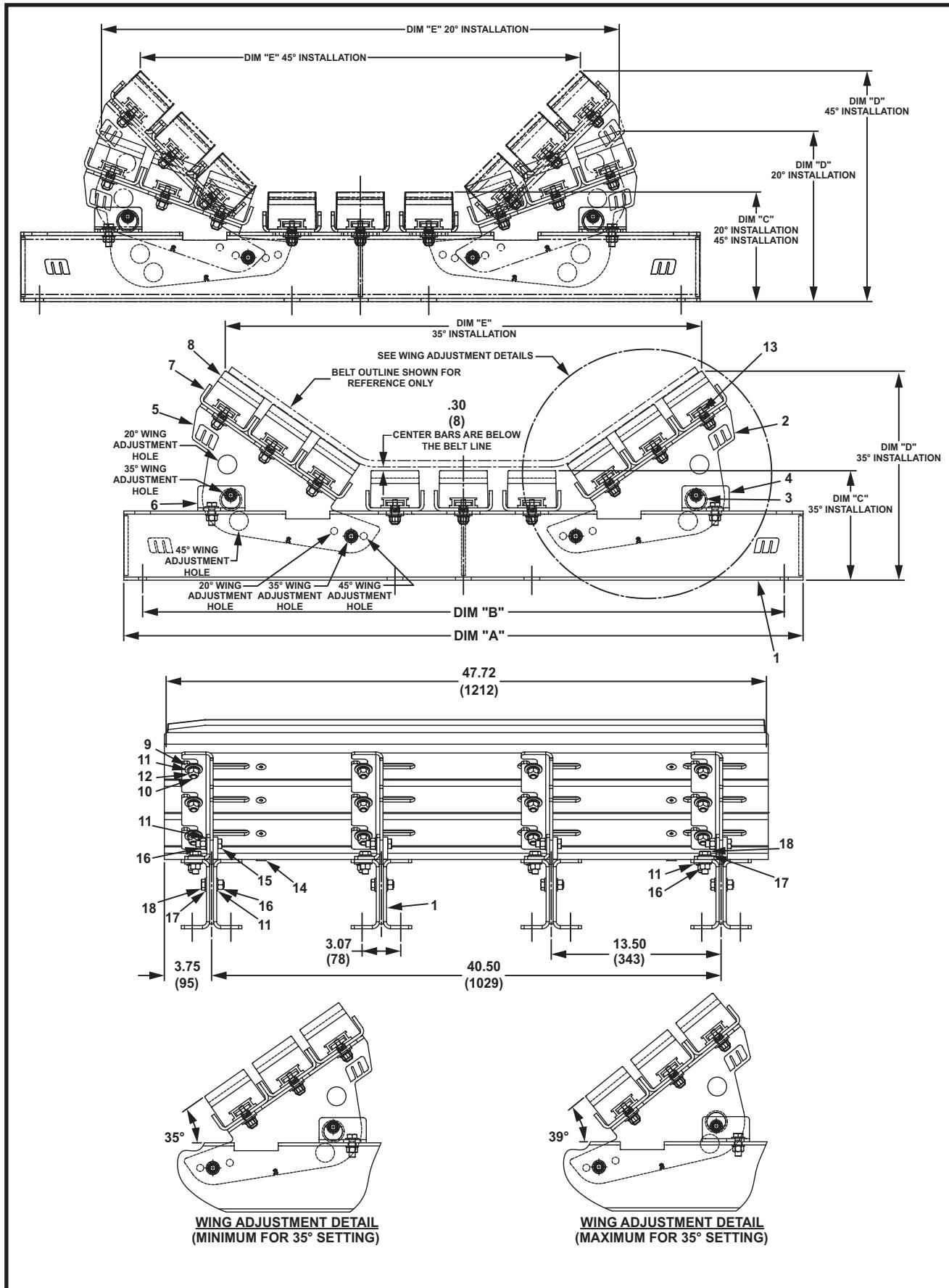


Figure 4. Martin® Impact Cradle MD Assembly, P/N 36318-XXX (Sheet 1 of 2)

Item	Description	Part Number	Qty
1	Cross Support Weldment	36317-XXX*	4
2	Wing Support Plate	Table IV	4
3	Eccentric Adjustment	35994	8
4	Wing Angle Right	35992-R	4
5	Wing Support Plate	Table IV	4
6	Wing Angle Left	35992-L	4
7	Bar Holder	36324	Table IV
8	Rubber Impact Bar	31617	Table IV
9	Washer Flat 1/2 Wide ZP	17328	Table IV
10	T-Bolt 1/2-13NC x 1-1/2	31775	Table IV
11	Washer Compression 1/2	11750	Table IV
12	Nut Hex Top Lock 1/2-13NC	36215	Table IV
13	Plate Nut 3/8-16NC GR B PP	37387	Table IV
14	Screw HSFCHC 3/8-16NC x 1 BO (N)	32900	Table IV
15	Screw HHC 1/2 - 13NC x 1-3/4 ZP	36228	8
16	Nut Hex 1/2-13NC GR 2 ZP	11771	24
17	Washer Flat 1/2 Narrow ZP	31010	16
18	Screw HHC 1/2 - 13NC x 1-1/2 ZP	11763	16
(NS) 19	Mounting Hardware	31033	1
(NS) 20	Label Kit	34042	1
(NS) 21	Operator's Manual	M3493	1

NS = Not Shown

Figure 4. Martin® Impact Cradle MD Assembly, P/N 36318-XXX (Sheet 2 of 2)

* First XX indicates Belt Width. Last X indicates Standard (S) or Wide (W) Base.

Table IV. Martin® Impact Cradle MD, Part Numbers and Quantities

Part No.	P/N Item 2	P/N Item 5	QTY Items 7 & 8	QTY Items 9, 10 & 12	QTY Item 11	QTY Items 13 & 14
36318-24S	35993-2R	35993-2L	6	24	48	12
36318-24W	35993-2R	35993-2L	6	24	48	12
36318-30S	35993-2R-1	35993-2L-1	7	28	52	14
36318-30W	35993-2R-1	35993-2L-1	7	28	52	14
36318-36S	35993-2R	35993-2L	7	28	52	14
36318-36W	35993-2R	35993-2L	7	28	52	14
36318-42S	35993-3R	35993-3L	9	36	60	18
36318-42W	35993-3R	35993-3L	9	36	60	18
36318-48S	35993-3R	35993-3L	10	40	64	20
36318-48W	35993-3R	35993-3L	10	40	64	20
36318-54S	35993-4R	35993-4L	12	48	72	24
36318-54W	35993-4R	35993-4L	12	48	72	24
36318-60S	35993-4R	35993-4L	13	52	76	26
36318-60W	35993-4R	35993-4L	13	52	76	26
36318-66S	35993-5R	35993-5L	15	60	84	30
36318-66W	35993-5R	35993-5L	15	60	84	30
36318-72S	35993-5R	35993-5L	16	64	88	32
36318-72W	35993-5R	35993-5L	16	64	88	32

Table V. Martin® Impact Cradle MD, Dimensions (Part 1 of 2)

Part No.	Dim "A" in. (mm)	Dim "B" in. (mm)	Dim "C" in. (mm)	Dim "D" at 20° in. (mm)	Dim "D" at 35° in. (mm)	Dim "D" at 45° in. (mm)
36318-24S	36.00 (914)	33.00 (838)	8.20 (208)	11.57 (294)	13.69 (348)	14.83 (377)
36318-24W	42.00 (1067)	39.00 (991)	8.20 (208)	11.57 (294)	13.69 (348)	14.83 (377)
36318-30S	42.00 (1067)	39.00 (991)	8.20 (208)	11.57 (299)	13.92 (353)	15.06 (382)
36318-30W	48.00 (1219)	45.00 (1143)	8.20 (208)	11.57 (299)	13.92 (353)	15.06 (382)
36318-36S	48.00 (1219)	45.00 (1143)	8.20 (208)	11.57 (294)	13.69 (348)	14.83 (377)
36318-36W	54.00 (1372)	51.00 (1295)	8.20 (208)	11.57 (294)	13.69 (348)	14.83 (377)
36318-42S	54.00 (1372)	51.00 (1295)	8.70 (221)	13.56 (344)	16.64 (423)	18.35 (466)
36318-42W	60.00 (1524)	57.00 (1448)	8.70 (221)	13.56 (344)	16.64 (423)	18.35 (466)
36318-48S	60.00 (1524)	57.00 (1448)	8.70 (221)	13.56 (344)	16.64 (423)	18.35 (466)
36318-48W	66.00 (1676)	63.00 (1600)	8.70 (221)	13.56 (344)	16.64 (423)	18.35 (466)
36318-54S	66.00 (1676)	63.00 (1600)	8.95 (227)	15.50 (394)	19.56 (497)	21.95 (557)
36318-54W	72.00 (1829)	69.00 (1753)	8.95 (227)	15.50 (394)	19.56 (497)	21.95 (557)
36318-60S	72.00 (1829)	69.00 (1753)	8.95 (227)	15.50 (394)	19.56 (497)	21.95 (557)
36318-60W	78.00 (1981)	75.00 (1905)	8.95 (227)	15.50 (394)	19.56 (497)	21.95 (557)
36318-66S	78.00 (1981)	75.00 (1905)	9.20 (234)	17.24 (438)	22.60 (574)	25.62 (651)
36318-66W	84.00 (2134)	81.00 (2057)	9.20 (234)	17.24 (438)	22.60 (574)	25.62 (651)
36318-72S	84.00 (2134)	81.00 (2057)	9.20 (234)	17.24 (438)	22.60 (574)	25.62 (651)
36318-72W	90.00 (2286)	87.00 (2210)	9.20 (234)	17.24 (438)	22.60 (574)	25.62 (651)

Table V. Martin® Impact Cradle MD, Dimensions (Part 2 of 2)

Part No.	Dim "E" at 20° in. (mm)	Dim "E" at 35° in. (mm)	Dim "E" at 45° in. (mm)	Weight lbs (kg)
36318-24S	24.34 (618)	24.34 (618)	22.40 (569)	501 (227)
36318-24W	24.34 (618)	24.34 (618)	22.40 (569)	530 (240)
36318-30S	27.25 (692)	27.25 (692)	25.02 (636)	574 (260)
36318-30W	27.25 (692)	27.25 (692)	25.02 (636)	604 (273)
36318-36S	28.79 (731)	28.79 (731)	26.85 (682)	604 (273)
36318-36W	28.79 (731)	28.79 (731)	26.85 (682)	633 (287)
36318-42S	37.87 (962)	37.87 (962)	34.98 (889)	750 (340)
36318-42W	37.87 (962)	37.87 (962)	34.98 (889)	781 (354)
36318-48S	40.05 (1017)	40.05 (1017)	37.16 (944)	825 (374)
36318-48W	40.05 (1017)	40.05 (1017)	37.16 (944)	856 (388)
36318-54S	50.20 (1275)	50.20 (1275)	46.20 (1174)	971 (440)
36318-54W	50.20 (1275)	50.20 (1275)	46.20 (1174)	1003 (454)
36318-60S	52.20 (1326)	52.20 (1326)	48.20 (1224)	1047 (474)
36318-60W	52.20 (1326)	52.20 (1326)	48.20 (1224)	1079 (489)
36318-66S	62.09 (1577)	62.09 (1577)	56.92 (1446)	1210 (548)
36318-66W	62.09 (1577)	62.09 (1577)	56.92 (1446)	1243 (1243)
36318-72S	64.46 (1637)	64.46 (1637)	59.29 (1506)	1287 (583)
36318-72W	64.46 (1637)	64.46 (1637)	59.29 (1506)	1320 (598)

Part Numbers

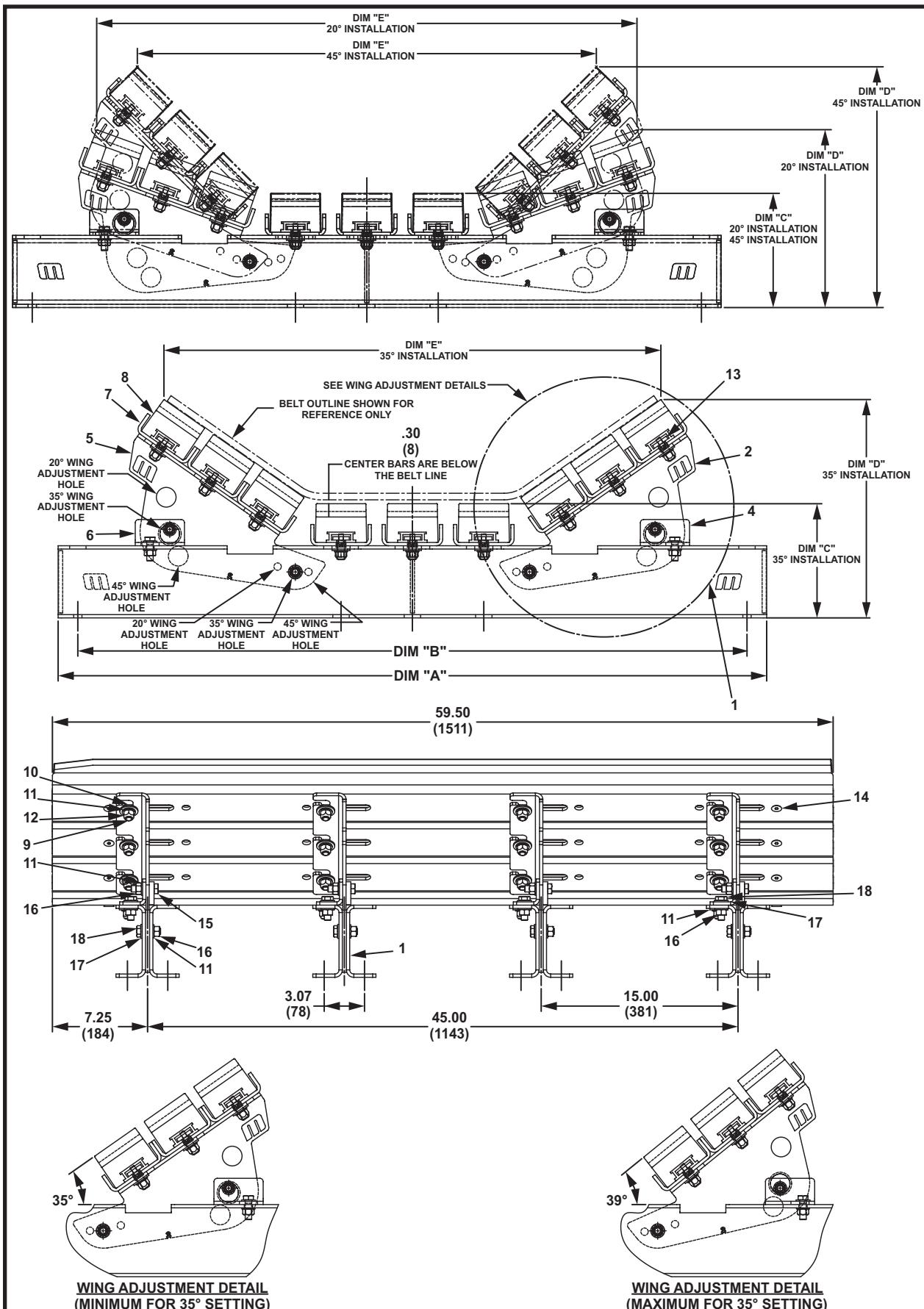


Figure 5. Martin® Impact Cradle MD Assembly with 5 ft. Bars, P/N 36516-XXX (Sheet 1 of 2)

Item	Description	Part Number	Qty
1	Cross Support Weldment	36317-XXX*	4
2	Wing Support Plate	Table VI	4
3	Eccentric Adjustment	35994	8
4	Wing Adjustment Angle Right	35992-R	4
5	Wing Support Plate	Table VI	4
6	Wing Adjustment Angle Left	35992-L	4
7	Bar Holder (5 ft.)	36519	Table VI
8	Rubber Impact Bar w/ Aluminum Track (5 ft.)	33816	Table VI
9	T-Bolt 1/2 - 13NC x 1-1/2	31775	Table VI
10	Washer Flat 1/2 Wide ZP	17328	Table VI
11	Washer Compression 1/2	11750	Table VI
12	Nut Hex Top Lock 1/2-13NC ZP	36215	Table VI
13	Plate Nut 3/8-16NC	37387	Table VI
14	Screw HSFCHC 3/8-16NC x 1	32900	Table VI
15	Screw HHC 1/2 - 13NC x 1-3/4 ZP	36228	8
16	Nut Hex 1/2-13NC ZP	11771	24
17	Washer Flat 1/2 Narrow ZP	31010	16
18	Screw HHC 1/2 - 13NC x 1-1/2 ZP	11763	16
(NS) 19	Mounting Hardware	31033	1
(NS) 20	Operator's Manual	M3493	1
(NS) 21	Label Kit	34042	1

NS = Not Shown

Figure 5. Martin® Impact Cradle MD Assembly with 5 ft. Bars, P/N 36516-XXX (Sheet 2 of 2)

* First XX indicates Belt Width. Last X indicates Standard (S) or Wide (W) Base.

Table VI. Martin® Impact Cradle MD with 5 ft. Bars, Part Numbers and Quantities

Part No.	P/N Item 2	P/N Item 5	QTY Items 7 & 8	QTY Items 9, 10 & 12	QTY Item 11	QTY Items 13 & 14
36516-24S	36317-24S	35993-2L	6	24	48	12
36516-24W	36317-24W	35993-2L	6	24	48	12
36516-30S	36317-30S	35993-2L-1	7	28	52	14
36516-30W	36317-30W	35993-2L-1	7	28	52	14
36516-36S	36317-36S	35993-2L	7	28	52	14
36516-36W	36317-36W	35993-2L	7	28	52	14
36516-42S	36317-42S	35993-3L	9	36	60	18
36516-42W	36317-42W	35993-3L	9	36	60	18
36516-48S	36317-48S	35993-3L	10	40	64	20
36516-48W	36317-48W	35993-3L	10	40	64	20
36516-54S	36317-54S	35993-4L	12	48	72	24
36516-54W	36317-54W	35993-4L	12	48	72	24
36516-60S	36317-60S	35993-4L	13	52	76	26
36516-60W	36317-60W	35993-4L	13	52	76	26
36516-72S	36317-72S	35993-5L	16	54	88	32
36516-72W	36317-72W	35993-5L	16	54	88	32

Table V. Martin® Impact Cradle MD with 5 ft. Bars, Dimensions (Part 1 of 2)

Part No.	Dim "A" in. (mm)	Dim "B" in. (mm)	Dim "C" in. (mm)	Dim "D" at 20° in. (mm)	Dim "D" at 35° in. (mm)	Dim "D" at 45° in. (mm)
36516-24S	36.00 (914)	33.00 (838)	8.20 (208)	11.57 (294)	13.69 (348)	14.83 (377)
36516-24W	42.00 (1067)	39.00 (991)	8.20 (208)	11.57 (294)	13.69 (348)	14.83 (377)
36516-30S	42.00 (1067)	39.00 (991)	8.20 (208)	11.75 (299)	13.92 (353)	15.06 (382)
36516-30W	48.00 (1219)	45.00 (1143)	8.20 (208)	11.75 (299)	13.92 (353)	15.06 (382)
36516-36S	48.00 (1219)	45.00 (1143)	8.20 (208)	11.57 (294)	13.69 (348)	14.83 (377)
36516-36W	54.00 (1372)	51.00 (1295)	8.20 (208)	11.57 (294)	13.69 (348)	14.83 (377)
36516-42S	54.00 (1372)	51.00 (1295)	8.70 (221)	13.56 (344)	16.64 (423)	18.35 (466)
36516-42W	60.00 (1524)	57.00 (1448)	8.70 (221)	13.56 (344)	16.64 (423)	18.35 (466)
36516-48S	60.00 (1524)	57.00 (1448)	8.70 (221)	13.56 (344)	16.64 (423)	18.35 (466)
36516-48W	66.00 (1676)	63.00 (1600)	8.70 (221)	13.56 (344)	16.64 (423)	18.35 (466)
36516-54S	66.00 (1676)	63.00 (1600)	8.95 (227)	15.50 (394)	19.56 (497)	21.95 (557)
36516-54W	72.00 (1829)	69.00 (1753)	8.95 (227)	15.50 (394)	19.56 (497)	21.95 (557)
36516-60S	72.00 (1829)	69.00 (1753)	8.95 (227)	15.50 (394)	19.56 (497)	21.95 (557)
36516-60W	78.00 (1981)	75.00 (1905)	8.95 (227)	15.50 (394)	19.56 (497)	21.95 (557)
36516-72S	84.00 (2134)	81.00 (2057)	9.20 (234)	17.24 (438)	22.60 (574)	25.62 (651)
36516-72W	90.00 (2286)	87.00 (2210)	9.20 (234)	17.24 (438)	22.60 (574)	25.62 (651)

Table V. Martin® Impact Cradle MD with 5 ft. bars, Dimensions (Part 2 of 2)

Part No.	Dim "E" at 20° in. (mm)	Dim "E" at 35° in. (mm)	Dim "E" at 45° in. (mm)	Weight lbs (kg)
36516-24S	26.62 (676)	24.34 (618)	22.40 (569)	562 (254)
36516-24W	26.62 (676)	24.34 (618)	22.40 (569)	592 (268)
36516-30S	29.83 (758)	27.25 (692)	25.02 (636)	647 (293)
36516-30W	29.83 (758)	27.25 (692)	25.02 (636)	676 (306)
36516-36S	31.07 (789)	28.79 (731)	26.85 (682)	676 (306)
36516-36W	31.07 (789)	28.79 (731)	26.85 (682)	705 (319)
36516-42S	41.18 (1046)	37.87 (962)	34.98 (889)	844 (382)
36516-42W	41.18 (1046)	37.87 (962)	34.98 (889)	875 (396)
36516-48S	43.36 (1101)	40.05 (1017)	37.16 (944)	930 (421)
36516-48W	43.36 (1101)	40.05 (1017)	37.16 (944)	961 (435)
36516-54S	54.54 (1385)	50.20 (1275)	46.20 (1174)	1096 (497)
36516-54W	54.54 (1385)	50.20 (1275)	46.20 (1174)	1128 (511)
36516-60S	56.54 (1436)	52.20 (1326)	48.20 (1224)	1183 (536)
36516-60W	56.54 (1436)	52.20 (1326)	48.20 (1224)	1215 (551)
36516-72S	70.17 (1782)	64.46 (1637)	59.29 (1506)	1455 (659)
36516-72W	70.17 (1782)	64.46 (1637)	59.29 (1506)	1488 (674)

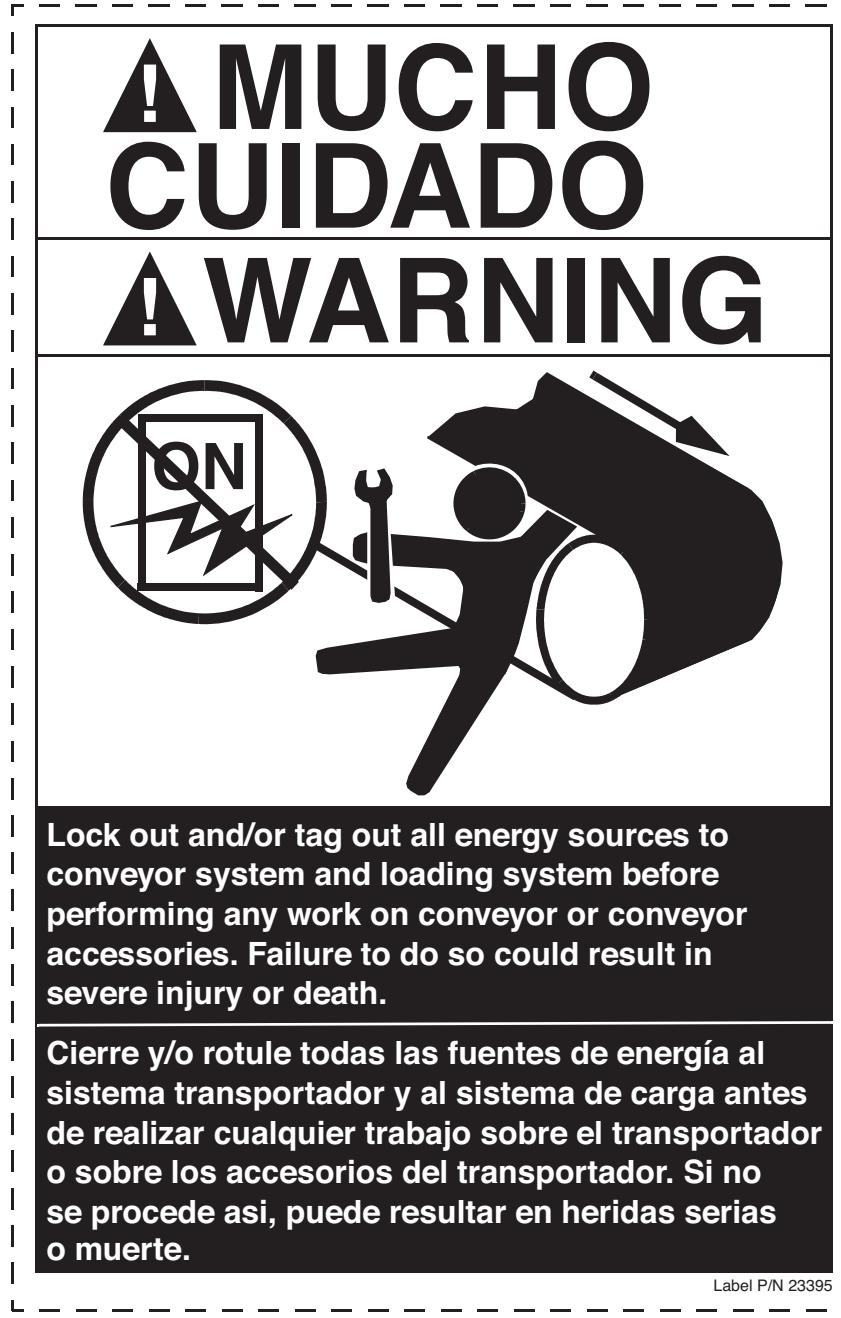


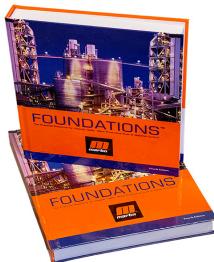
Figure 6. Conveyor Products Warning Label, P/N 23395

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