

MARTIN® DURT TRACKER™ XHD Belt Cleaner

Go to Martin Engineering Belt Cleaner web page



Operator's Manual M3257

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) z244.1-1982, *American National Standard for Personnel Protection - Lockout/Tagout of Energy Sources - Minimum Safety Requirements* and Occupational Safety and Health Administration (OSHA) Federal Register, Part IV, 29 CFR Part 1910, *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

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



Note: General statements to assist the reader.

Table of Contents

Table of Contents

Section	Page
List of Figures	ii
List of Tables	ii
Introduction	. 1
General	1
Installations without chutework	1
Belt cleaner inspection access	1
References	1
Safety	2
Before Installing Belt Cleaner	. 3
Installing Belt Cleaner	. 4
Finding center point of mainframe	4
Installing belt cleaner assembly	6
After Installing Belt Cleaner	. 9
Weekly Maintenance	. 10
Troubleshooting/Installation Checklist	. 11
Part Numbers	
Appendix A. Typical MARTIN [®] DURT TRACKER [™] XHD Belt Cleaner Installations	A-1

List of Figures

Figure	Title	Page
1	Drawing arc to locate pre-cleaner mainframe	4
2	Marking pre-cleaner mainframe location	5
3	Belt cleaner mainframe	6
4	Installing belt cleaner mainframe	6
5	Verifying proper mainframe location	7
6	Using end stop to locate pre-cleaner mainframe	7
7	MARTIN [®] DURT TRACKER TM XHD Pre-Cleaner with Aluminum Track, P/N 32333-XXXXX or 33659-XXXXX (with 6.5 in. blades only)	13
8	Pinch Point Warning Label, P/N 30528	15
9	Conveyor Products Warning Label, P/N 23395	15

List of Tables

Table	Title	Page
Ι	Dimensions for locating pre-cleaner	4
II	Checking proper pre-cleaner mainframe location	8
III	MARTIN [®] DURT TRACKER TM XHD Belt Cleaner Part Numbers and Quantities	14
IV	MARTIN [®] DURT TRACKER TM XHD Blade Part Numbers	14

Introduction

General	To introduce product back into the product flow, a Pre-Cleaner is installed on the face of the head pulley. On a dual cleaner system, the Secondary Cleaner is installed immediately following the Pre-Cleaner to remove stubborn material left on the conveyor belt. If a Pre-Cleaner cannot be used because of space limitations, the Secondary Cleaner is installed alone. If the material- handling process or product could be affected by contamination from the use of these belt cleaners, the user is responsible for taking the necessary steps to prevent contamination. Consult Martin Engineering or a representative for alternate belt cleaners or belt cleaner locations to use where contamination may be an issue.
Installations without chutework	These procedures were written for equipment that is being installed on enclosed pulley chutework. If the pulley is not enclosed, the equipment should be installed using the best available field resources and methods to ensure that the critical dimensions are followed for proper installation.
	MARTIN [®] Standard Hanger Mount, P/N 27382 can be used for installations without chutework.
Belt cleaner inspection access	If the belt cleaner is installed on enclosed pulley chutework, a MARTIN [®] CYA [™] Inspection Door should be installed. MARTIN [®] CYA [™] Inspection Doors are available from Martin Engineering or a representative. See "Part Numbers" for a list of MARTIN [®] CYA [™] Inspection Doors and part numbers.
References	 The following documents are referenced in this manual: American National Standards Institute (ANSI) z244.1-1982, American National Standard for Personnel Protection - Lockout/Tagout of Energy Sources - Minimum Safety Requirements, American National Standards Institute Inc., 1430 Broadway, New York, NY 10018. Federal Register, Volume 54, Number 169, Part IV, 29 CFR Part 1910, 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.

Introduction

Safety

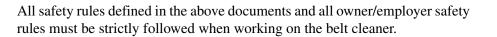
30













Do not touch or go near the conveyor belt or conveyor accessories when the belt is running. Your body or clothing can get caught and you can be pulled into the conveyor, resulting in severe injury or death.



Before installing, servicing, or adjusting the belt cleaner, turn off and lock out/tag out all energy sources to the conveyor and conveyor accessories according to ANSI standards. Failure to do so could result in serious injury or death.



If this equipment will be installed in an enclosed area, test the gas level or dust content before using a cutting torch or welding. Using a torch or welding in an area with gas or dust may cause an explosion resulting in serious injury or death.

AWARNING

Before using a cutting torch or welding the chute wall, cover the conveyor belt with a fire retardant cover. Failure to do so can allow the belt to catch fire.



Remove all tools from the installation area and conveyor belt before turning on the conveyor. Failure to do so can cause serious injury to personnel or damage to the belt and conveyor.



Mainframe with blade can be heavy and may require two people to lift. Attempting to lift the belt cleaner without assistance could result in injury.

IMPORTANT

The delivery service is responsible for damage occurring in transit. Martin Engineering CANNOT enter claims for 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 belt cleaner assembly from shipping container.
- 3. If anything is missing, contact Martin Engineering or a representative.





Before installing equipment, turn off and lock out/tag out all energy sources to the conveyor and conveyor accessories according to ANSI standards. Failure to do so could result in serious injury or death.

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





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.

5. If using a cutting torch or welding, test atmosphere for gas level or dust content. Cover conveyor belt with fire retardant cover.

IMPORTANT

Center the belt cleaner blades to clean an area narrower than the conveyor belt width. This allows for side-to-side movement of the belt and prevents damage to the belt edge.



The chute wall that the tensioner will be located on is referred to as the "operator side." The other side of the chute is referred to as the "far side." (If installing dual tensioners, side that is most accessible is "operator side.")

6. Determine which side of chute is easiest to access. Locate the tensioner on the most accessible chute wall.

Installing Belt Cleaner

IMPORTANT

Read entire section before beginning work.

To install the belt cleaner, follow the procedures in this section corresponding to the following steps:

- 1. Find center point of belt cleaner mainframe.
- 2. Locate tensioner and far side mount plate on chute walls.
- 3. Install far side mount plate.
- 4. Install tensioner and belt cleaner assembly.

Finding center point of mainframe

1. See Figure 1 and Table I. On operator side chute wall, mark vertical and horizontal center line of head pulley and draw an arc as shown.

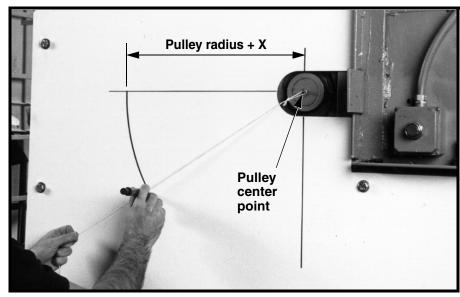


Figure 1. Drawing arc to locate pre-cleaner mainframe

Table 1. Dimensions for locating pre-cleaner					
Pulley diameter* in. (mm)	Dim. X in. (mm)				
16 (400)	5.75 (146)				
20 (500)	5.50 (140)				
24 (600)	5.25 (133)				
28 (700)	5.00 (127)				
30 - 120 (750 - 3000)	4.75 (120)				
*Includes lagging & belt.					

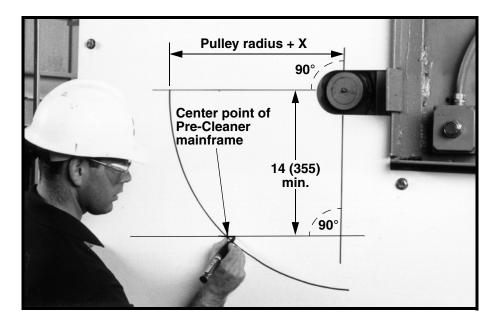


Figure 2. Marking pre-cleaner mainframe location

- 2. See Figure 2. Draw a horizontal line parallel to pulley's horizontal center line as shown. Locate center point of pre-cleaner mainframe where this horizontal line intersects arc on chute wall.
- 3. Make sure mainframe and blades do not lie in path of material unloading from conveyor belt. Make sure blade tip is at or below horizontal center line.
- 4. Repeat steps 1 through 3 for other side of chute.
- 5. If using a MARTIN[®] CYA[™] Inspection Door, install it according to *MARTIN[®] CYA[™] Inspection Door Operator's Manual*, P/N M3127.
- 6. Install tensioner according to *MARTIN[®] XHD Tensioners Operators Manual*, P/N M3512.

Installing belt cleaner assembly

AWARNING

Belt cleaner is very heavy and requires a hoist or several people to lift. Attempting to lift belt cleaner without assistance could result in serious injury.

- 1. For easier handling, remove blades from mainframe as follows:
 - a. (See Figure 3) Loosen hex head cap screws (A) on end stop (B) on end of mainframe assembly where lanyard is visible. Remove end stop.
 - b. Loosen elastic nuts (D) on split frame (C) and pull lanyard to slide blades off end of mainframe assembly.
- 2. Remove two shock bushings from mount plates.

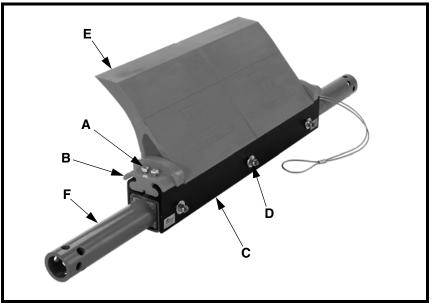


Figure 3. Belt cleaner mainframe

3. See Figure 4. Insert end of belt cleaner mainframe through mounting hole in far side mount plate. Then insert other end into mounting holes in operator side mount plate weldment.



Figure 4. Installing belt cleaner mainframe

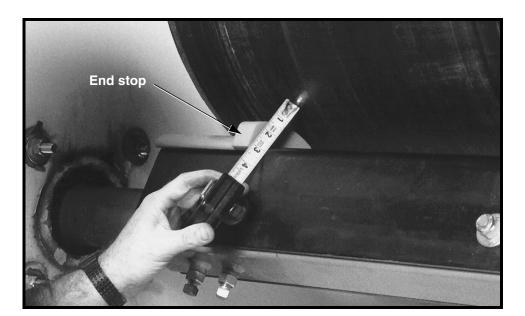


Figure 5. Verifying proper mainframe location

- 4. Slide two shock bushings over ends of mainframe and into mount plates.
- 5. Check for proper belt cleaner mainframe location as follows:
 - a. Slide end stop onto mainframe.
 - b. Turn mainframe until top of end stop is parallel with conveyor belt as shown in Figure 6.
 - c. Measure the distance between the top of the end stop and the conveyor belt on both sides. Adjust mainframe location to maintain the proper distance according to Figure 6 and Table II.
- 6. Make sure mainframe is parallel to pulley.

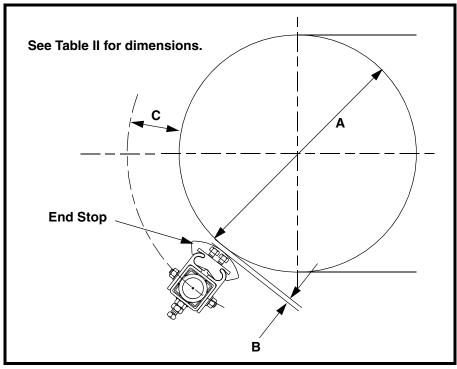


Figure 6. Using end stop to locate pre-cleaner mainframe

Martin Engineering M3257-08/08

Pulley diameter (A)* in. (mm)	Distance between end stop and belt (B) in. (mm)	Distance between mainframe center point and belt (C) in. (mm)
16 (400)	1.00 (25)	5.75 (146)
20 (500)	0.75 (19)	5.50 (140)
24 (600)	0.50 (13)	5.25 (133)
28 (700)	0.25 (6)	5.00 (127)
30 - 120 (750 - 3000)	0	4.75 (120)
*Includes lagging and	belt thickness.	

Table II. Checking proper pre-cleaner mainframe location

7. Slide blades and end stop back onto mainframe assembly. Make sure lanyard is attached to far end of first blade and extends under all blades. Tighten hex head cap screws to secure end stop.



Belt cleaner blades should be centered to clean area narrower than conveyor belt width. This allows movement of belt and prevents damage to edge of belt.

- 8. Loosen four square head set screws on bottom of mainframe assembly. Center the blades on belt by adjusting end weldments for telescoping mainframe (F, Figure 3). Measure from center point of pulley to outside edge of first and last blade to make sure blades are centered.
- 9. Adjust end weldment to remove excess mainframe on far side. Tighten four square head set screws on mainframe weldment.
- 10. Tension blades against conveyor belt according to *MARTIN[®] XHD Tensioners Operators Manual*, P/N M3512.



- 1. Thoroughly wipe chute wall clean above tensioner.
- 2. Place Conveyor Products Warning Label (P/N 23395) on outside chute wall visible to belt cleaner operator.



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.

A 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 for 1 hour, then turn off.





Before installing, servicing, or adjusting the belt cleaner/ tensioner, turn off and lock out/tag out all energy sources to the conveyor and conveyor accessories according to ANSI standards. Failure to do so could result in serious injury or death.

- 4. Make sure all fasteners are tight. Tighten if necessary.
- 5. Inspect belt cleaner for the following:
 - Wear. (A small amount of "break-in" wear may be found. This will stop once blades wear to conveyor belt contour.)
 - Material buildup. (No material between blades and return side of conveyor belt should be found.)
- 6. If wear, material buildup, or some other problem exists, see "Troubleshooting."

IMPORTANT

Read entire section before beginning work.



Maintenance inspection should be performed no less than weekly. Some applications may require more frequent maintenance inspections.



Before installing, servicing, or adjusting the belt cleaner/ tensioner, turn off and lock out/tag out all energy sources to the conveyor and conveyor accessories according to ANSI standards. Failure to do so could result in serious injury or death.

- 1. Remove any material from belt cleaner.
- 2. Make sure all fasteners are tight. Tighten if necessary.
- 3. Check tension on cleaner. Re-tension if necessary.
- 4. Wipe all labels clean. If labels are not readable, contact Martin Engineering or a representative for replacements.
- 5. Check blades for excessive wear. Replace if necessary.
- 6. Remove equipment from service if there is any indication it is not functioning properly. Call Martin Engineering or a representative for assistance. Do NOT return equipment to operation until the cause of the problem has been identified and corrected.



AWARNING

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 from maintenance area.



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.

A DANGER

8. Start conveyor belt.



Troubleshooting

Symptom	Corrective Action		
Insufficient cleaning and carryback.	 Tension of cleaner on belt is set too low or too high. Increase or decrease tensioner setting. Blades are worn. Check blades and replace if necessary. 		
Noise or vibration.	Tension is not sufficient or is set too high. Correct tension as necessary. If this does not correct problem, blade urethane may not match application. Contact Martin Engineering or a representative.		
High blade wear rate.	Tension of cleaner on belt is set too high. Reduce tensioner setting.		
Unusual wear or damage to blades.	Check belt splice(s) and repair as necessary.		
Bent or broken mainframe or support frame due to blade slipping through.	If blades are worn to or past the wear line, replace blades. If blades are not worn, check mainframe location.		
Corrosion or chemical degradation.	Blade urethane may not match application. Contact Martin Engineering or a representative.		

NOTE

Conveyor equipment such as conveyor belt cleaners are subject to a wide variety of bulk materials characteristics and often have to perform under extreme operating or environmental conditions. It is not possible to predict all circumstances that may require troubleshooting. Contact Martin Engineering or a representative if you are experiencing problems other than those listed in the "Troubleshooting" chart above. Do not return the equipment to operation until the problem has been identified and corrected.

Installation checklist If after taking the corrective actions suggested under "Troubleshooting" you are still experiencing problems, check for the following:

Installation Checklist

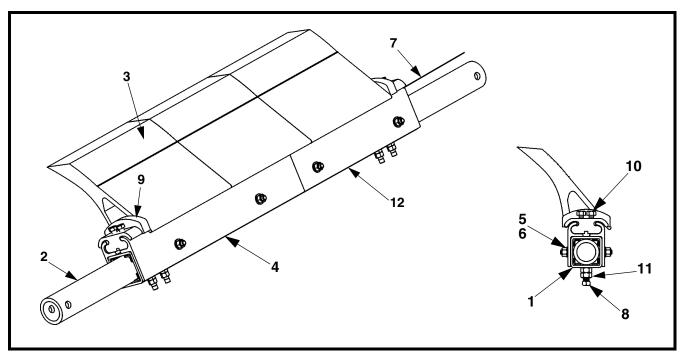
✓ Pre-Cleaner mainframe is proper distance from belt surface on both ends of mainframe

- Pre-Cleaner blade tip is at or below horizontal center line of pulley and does not lie in path of material flow.
- ✓ Blades are centered on belt.

Part Numbers

	This section provides product names and corresponding part numbers for MARTIN [®] DURT TRACKER [™] Belt Cleaners and related equipment. Please reference part numbers when ordering parts:
MARTIN [®] DURT TRACKER TM XHD	MARTIN® DURT TRACKERTM Pre-Cleaner Assembly : P/N 32333-XXXXX (aluminum track). See Figure 7.
Belt Cleaner	MARTIN[®] DURT TRACKERTM Pre-Cleaner Assembly with 6.5-in. Blades: P/N 33659-XXXXX (aluminum track). See Figure 7.
Mounts and brackets	Shock Ring Mount "L" Bracket : P/N 33333 (for use with MARTIN [®] CYA TM Inspection Door).
	XHD Corner Flange Bracket: P/N 32818 (for use with MARTIN [®] CYA TM Inspection Door).
MARTIN [®] CYATM	With standard door, up to 155° F (68° C):
Inspection Doors	9 x 12 in. (229 x 305 mm): P/N 27658-0912.
	12 x 14 in. (305 x 356 mm): P/N 27658-1214.
	12 x 18 in. (305 x 457 mm): P/N 27658-1218.
	18 x 24 in. (457 x 610 mm): P/N 27658-1824.
	24 x 24 in. (610 x 610 mm): P/N 27658-2424.
	With steel door:
	9 x 12 in. (229 x 305 mm): P/N 34955-0912.
	12 x 14 in. (305 x 356 mm): P/N 34955-1214.
	12 x 18 in. (305 x 457 mm): P/N 34955-1218.
	18 x 24 in. (457 x 610 mm): P/N 34955-1824.
	24 x 24 in. (610 x 610 mm): P/N 34955-2424.
Miscellaneous	Optional Control Kit with Non-Locking Regulator : P/N 32181.

Part Numbers



Item	Description	Part No.	Qty
1	Mainframe Weldment	32331-XXX*	1
2	End Welment for Mainframe	Table III	2
3	Blade 13.11	Table IV	Table III
4	Aluminum Track	32330-XXX*	2
5	Nut Elastic Lock 1/2-13NC	18577	Table III
6	Washer Flat 1/2	17328	Table III
7	Lanyard Assembly	32177-XXX*	1
8	Screw SHS 1/2-13NC x 1-1/2	33190	4
9	End Stop	32174-01	2
10	Screw HHC 1/2-13NC x 2	14196	4
11	Nut Hex 1/2-13NC	11771	4
12	Aluminum Track	32330-18	Table III
13 (NS)	Blade 6.50	Table IV	Table III
14 (NS)	XHD Spring Arm Tensioner Assembly	Table III	1
NS	Label Kit	34018	1
NS	Operator's Manual	M3257	1

Figure 7. MARTIN[®] DURT TRACKERTM Pre-Cleaner with Aluminum Track, P/N 32333-XXXXX** or 33659-XXXXX** (with 6.5-in. blades only)

*XXX indicates belt width in inches.

**First XXX indicates belt width in inches; last XX indicates blade color and material.

NS = Not Shown

Assembly Part No.	Part No. Item 2	Qty Item 3	Qty Item 5,6	Qty Item 12	Qty Item 13	Part No. Item 14
32333-18XXX	32332-01	1	4	0	0	38003
32333-24XXX	32332-02	1	4	0	1	38003
32333-30XXX	32332-02	2	6	0	0	38003
32333-36XXX	32332-03	2	6	0	1	38003
32333-42XXX	32332-03	3	8	2	0	38003
32333-48XXX	32332-04	3	10	2	1	38003-2
32333-54XXX	32332-05	3	10	2	1	38003-2
32333-60XXX	32332-05	4	12	2	1	38003-2
32333-66XXX	32332-06	4	12	2	1	38003-2
32333-72XXX	32332-05	5	12	2	0	38003-2
32333-78XXX	32332-06	5	14	2	1	38003-2
32333-84XXX	32332-06	6	14	2	0	38003-2
32333-90XXX	32332-06	6	16	2	1	38003-2
32333-96XXX	32332-06	7	16	2	0	38003-2
32333-102XXX	32332-07	7	18	2	1	38003-2
32333-108XXX	32332-07	8	18	2	0	38003-2
32333-120XXX	32332-07	8	20	2	1	38003-2

Table III. MARTIN[®] DURT TRACKER[™] Belt Cleaner Part Numbers and Quantities

*XXX indicates belt width in inches; last XX indicate blade color and material.

**First number is for assembly 32333-XXXXX. Second number is for assembly 32659-XXXXX (which has only 6.5-in. blades).

Table IV. MARTIN [®]	DURT T	RACKER ^{тм}	Blade P	art Numbers
-------------------------------	--------	-----------------------------	---------	-------------

Assembly Part No.	Part No. Item 3	Part No. Item 13	Blade Color
32333-XXX	32136-13	32136-06	Orange
32333-XXXBR	32136-13BR	32136-06BR	Brown
32333-XXXGR	32136-13GR	32136-06GR	Green



Figure 8. Pinch Point Warning Label, P/N 30528

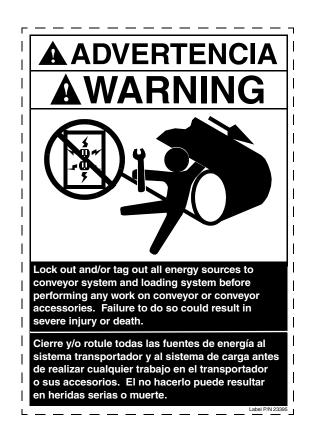
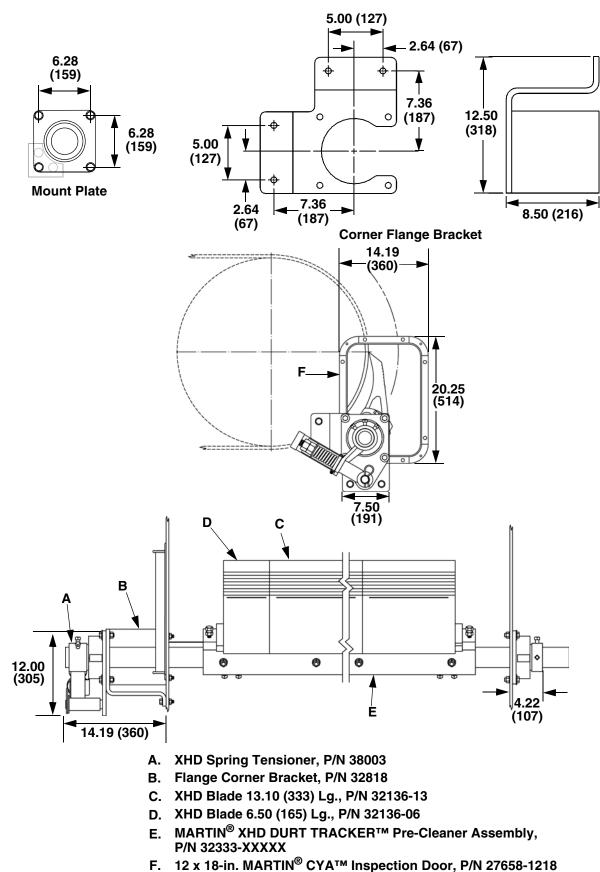


Figure 9. Conveyor Products Warning Label, P/N 23395

Notes

Appendix Typical MARTIN[®] DURT TRACKER[™] XHD Belt Cleaner Installation

MARTIN[®] DURT TRACKERTM XHD Belt Cleaner with MARTIN[®] XHD Spring Tensioner



Any product, process, or technology described here may be the subject of intellectual property rights reserved by Martin Engineering Company. Trademarks or service marks designated with the ® symbol are registered with the U.S. Patent and Trademark Office and may be proprietary in one or more countries or regions. Other trademarks and service marks belonging to Martin Engineering Company in the United States and/or other countries or regions may be designated with the "TM" and "SM" symbols. Brands, trademarks, and names of other parties, who may or may not be affiliated with, connected to, or endorsed by Martin Engineering Company, are identified wherever possible. Additional information regarding Martin Engineering Company's intellectual property can be obtained at www.martin-eng.com/trademarks.



We Make Your Bulk Materials Handling Cleaner, Safer and More Productive Through Personalized Performance.



QUALITY MANAGEMENT SYSTEM CERTIFIED BY DNV

Form No. M3257-08/08 © 1996, 2008 MARTIN ENGINEERING COMPANY. All rights reserved. One Martin Place Neponset, IL 61345-9766 USA 800-544-2947 or 309-594-2384 FAX: 309-594-2432 www.martin-eng.com



MARTIN® SQC2™ Belt Cleaner

Go to MARTIN® SQC2™ Belt Cleaner web page



Operator's Manual M3682

MARTIN[®] SOC2[™] Belt Cleaner





UPERATOR'S

MANUAI

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) z244.1-1982, *American National Standard for Personnel Protection - Lockout/Tagout of Energy Sources - Minimum Safety Requirements* and Occupational Safety and Health Administration (OSHA) Federal Register, Part IV, 29 CFR Part 1910, *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

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



Note: General statements to assist the reader.

Table of Contents

Section Page	ļ
List of Figures and Tables ii	
Introduction	
General 1	
Safety	
Before Installing Belt Cleaner and Tensioner 3	
Installing Belt Cleaner Assembly 4	
Installing tensioners	
Installing belt cleaner mainframe 7	
Tensioning belt cleaner	
After Installing Belt Cleaner and Tensioner 14	
Weekly Maintenance	
Troubleshooting	
Part Numbers	
Appendix A-1	

List of Figures

Figure	Title	Page
1	MARTIN [®] SQC2 TM Belt Cleaner Assembly, P/N SQC2-XXXXXXXXXX .	21
2	Conveyor Products Warning Label, P/N 23395	25
3	MARTIN [®] SQC2 [™] Tensioning Label, P/N SQC2-10002	25

List of Tables

Table	Title	Pag	ge
Ι	Complete Replacement Cartridge		22
II	MARTIN [®] SQC2 TM Belt Cleaner Assembly Parts, P/N SQC2-XXXXXXXXXX		22
III	MARTIN [®] SQC2 TM Part Number Breakdown		23
IV	MARTIN [®] SQC2 TM Blade Chart		24
V	MARTIN [®] SQC2 TM Tensioner Chart		24

Introduction

General

To introduce product back into the product flow, a Pre-Cleaner is installed on the face of the head pulley. On a dual cleaner system, the Secondary Cleaner is installed immediately following the Pre-Cleaner to remove stubborn material left on the conveyor belt. If a Pre-Cleaner cannot be used because of space limitations, the Secondary Cleaner is installed alone. If the materialhandling process or product could be affected by contamination from the use of these belt cleaners, the user is responsible for taking the necessary steps to prevent contamination. Consult Martin Engineering or a representative for alternate belt cleaners or belt cleaner locations to use where contamination may be an issue.



The side of the chute from which the belt cleaner will be serviced is referred to as the "operator side." The other side of the chute is referred to as the "far side."



All dimensions are in inches (millimeters).

Safety





Do not touch or go near the conveyor belt or conveyor accessories when the belt is running. Your body or clothing can get caught and you can be pulled into the conveyor, resulting in severe injury or death.





Before installing, servicing, or adjusting the belt cleaner, turn off and lock out/tag out all energy sources to the conveyor and conveyor accessories according to ANSI standards. Failure to do so could result in serious injury or death.







AWARNING

If this equipment will be installed in an enclosed area, test the gas level or dust content before using a cutting torch or welding. Using a torch or welding in an area with gas or dust may cause an explosion resulting in serious injury or death.



Before using a cutting torch or welding the chute wall, cover the conveyor belt with a fire retardant cover. Failure to do so can allow the belt to catch fire.



Remove all tools from the installation area and conveyor belt before turning on the conveyor. Failure to do so can cause serious injury to personnel or damage to the belt and conveyor.



Center the belt cleaner blades to clean an area narrower than the conveyor belt width. This allows for side-to-side movement of the belt and prevents damage to the belt edge.

IMPORTANT

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

- 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[®] SQC2[™] Belt Cleaner and Tensioners from shipping containers. Equipment in containers should include the following:
 - MARTIN[®] SQC2TM Belt Cleaner.
 - One Pair MARTIN[®] SQC2TM Tensioners.
 - Two Conveyor Products Warning Labels, P/N 23395.

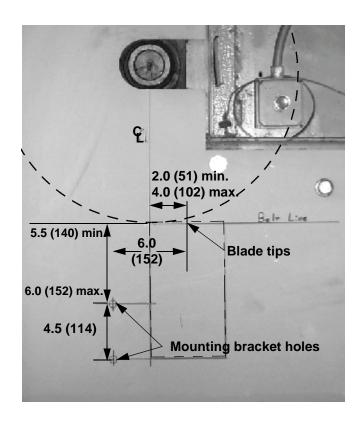
3 If anything is missing, contact Martin Engineering or a representative.

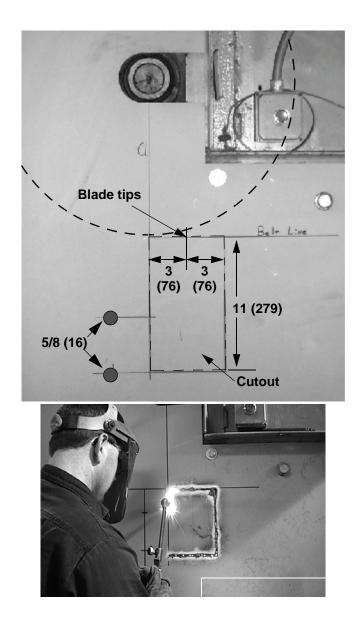
1





2



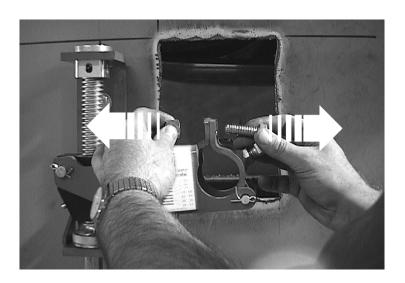


4 Weld or bolt mounting bracket to chute wall. (Martin Engineering recommends bolting.)

3



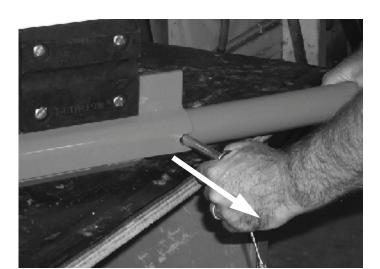




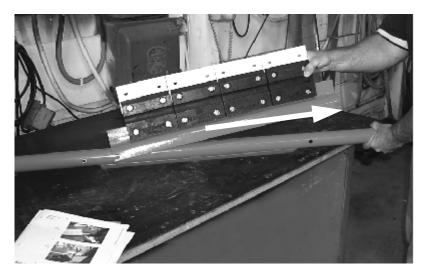
Repeat steps 2 through 7 on far side of chute.

Go to "Installing belt cleaner mainframe."

Installing belt cleaner mainframe



2

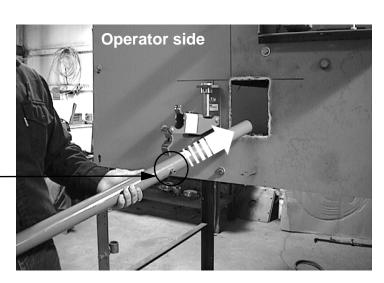






Install mainframe so spring pin is on far side of chute.









Must be tight enough that the frame will not rotate when sliding cartridge on.



6

4

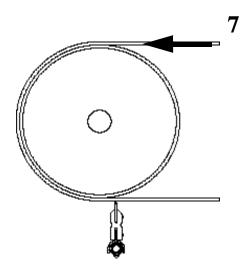


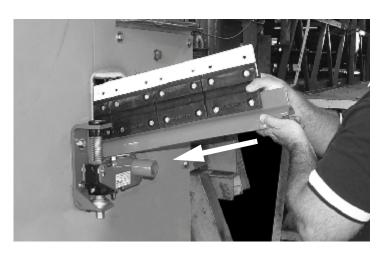


Martin Engineering M3682-03/07

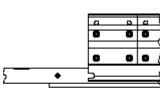


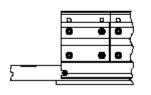
When sliding on or removing cartridge, make sure cartridge does NOT rotate around shaft.





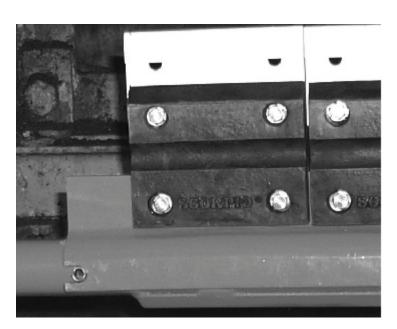
7a



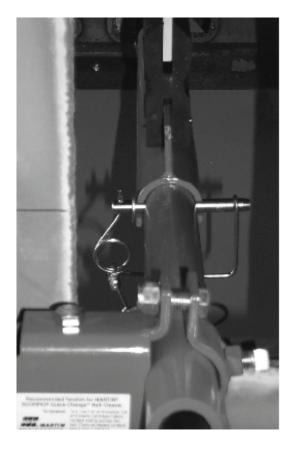




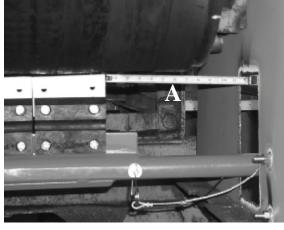




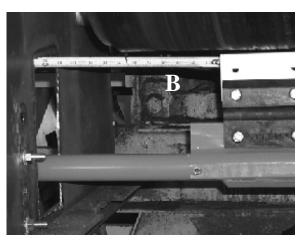
8



9 Adjust mainframe to ensure blades are centered on belt.

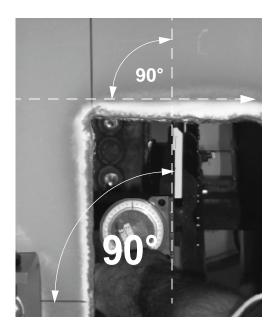






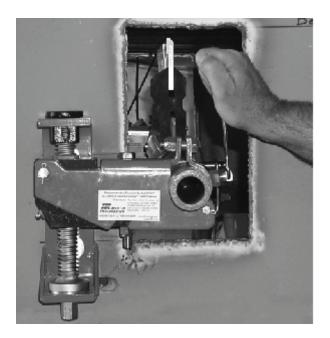
11

10









14 Repeat steps 12 and 13 on far side of chute.

Tensioning belt cleaner

1 Turn hex nut on the threaded rod until blade cartridge makes contact evenly across belt. Once all blades contact, turn 1/2 to 1 turn to tension.

IMPORTANT

Before tensioning, rotate | threaded rods so blades are just touching belt. |

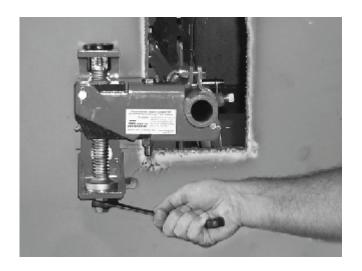
Recommended Tension for MARTIN[®] SQC2[™] Belt Cleaner

To tension:Turn hex nut on threaded rod
until blade cartridge makes
contact evenly across the
belt. Once all blades contact,
turn 1/2 to 1 full turn.

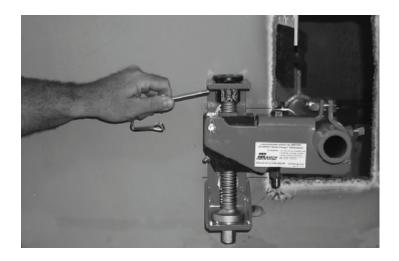


800-544-2947 or 309-594-2384 martin-eng.com Label P/N SQC2-10002

2



3



4 Repeat steps 1 through 3 on far side of chute.

After Installing Belt Cleaner and Tensioner





2







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.



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.

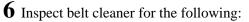
3 Turn on conveyor belt for 1 hour, then turn off.





Before adjusting belt cleaner, turn off and lock out/tag out energy source to conveyor belt and conveyor accessories according to ANSI standards (see "References").

- 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.



- Wear. (A small amount of "break-in" wear may be found. This will stop once blades wear to conveyor belt contour.)
- 7 If wear, material buildup, or some other problem exists, see "Troubleshooting."



Maintenance inspection should be performed no less than weekly. Your application may require more frequent maintenance inspections.



Read entire section before beginning work.

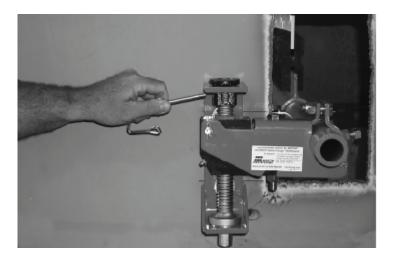


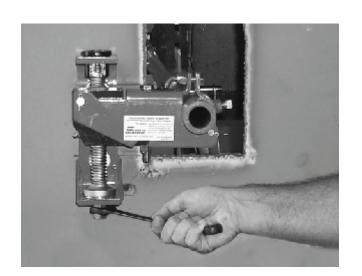


Before servicing belt cleaner, turn off and lock out/tag out energy source to conveyor belt and conveyor accessories according to ANSI standards (see "References").

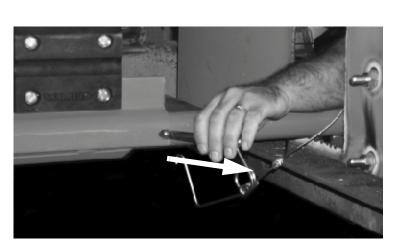
- **1** Remove any material from belt cleaner.
- 2 Make sure all fasteners are tight. Tighten if necessary.
- **3** Check tension on cleaner. Re-tension if necessary.
- **4** Wipe all labels clean. If labels are not readable, contact Martin Engineering or a representative for replacements.
- **5** Check blades for excessive wear. If tungsten carbide is worn off blades, replace blade cartridge as follows:

5a





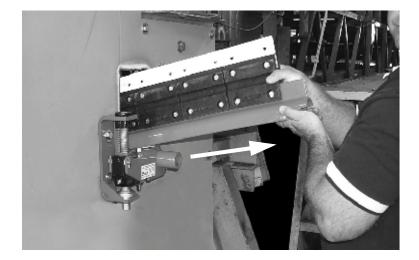
5c Repeat steps 5a and 5b on far side tensioner.



5d

5b

5e



5f Insert new blade cartridge as shown in steps 4 through 11 under "Installing belt cleaner mainframe."

6 Re-tension as shown in "Tensioning belt cleaner."



Remove equipment from service if there is any indication it is not functioning properly. Call Martin Engineering or representative for assistance. Do NOT return equipment to operation until the cause of the problem has been identified and corrected.

Troubleshooting

Symptom	Corrective Action
High blade wear rate.	Tension of cleaner on belt is set too high. Reduce tensioner setting.
Insufficient cleaning and carryback.	Tension of cleaner on belt is set too low or too high. Increase or decrease tensioner setting. Blades are worn. Check blades and replace if necessary. (See "Weekly Maintenance.")
Blade chatter.	Blades are not perpendicular to belt. Rotate mainframe so tips of blades are perpendicular to belt. If chatter persists, rotate mainframe so blades lay slightly back in direction of belt travel. Tension is not sufficient or is set too high. Correct tension as necessary. If problem persists, contact Martin Engineering or representative.
Loose or missing fasteners.	Fasteners were not tight enough. Re-install and tighten securely.



Conveyor equipment such as conveyor belt cleaners are subject to a wide variety of bulk materials characteristics and often have to perform under extreme operating or environmental conditions. It is not possible to predict all circumstances that may require troubleshooting. Contact Martin Engineering or a representative if you are experiencing problems other than those listed in the "Troubleshooting" chart above. Do not return the equipment to operation until the problem has been identified and corrected.

Part Numbers

MARTIN [®] SQC2 [™] Assembly	P/N SQC2-XXXXXXXXXXX. See Figure 1. Includes blade cartridge, mainframe and tensioners.
MARTIN [®] SQC2™ Tensioners	P/N SQC2-35701; P/N SQC2-35701-SS. See Figure 1. Includes two tensioners.
MARTIN [®] SQC2 [™] Blade Cartridges	P/N SQC2C-XXXXXXXXX. Includes replacement blades.
Miscellaneous	MARTIN [®] Heavy-Duty Hanger Mount Assembly: P/N 34233-HD. Used to mount MARTIN [®] SQC2 TM Tensioners onto stringer instead of onto chute wall.

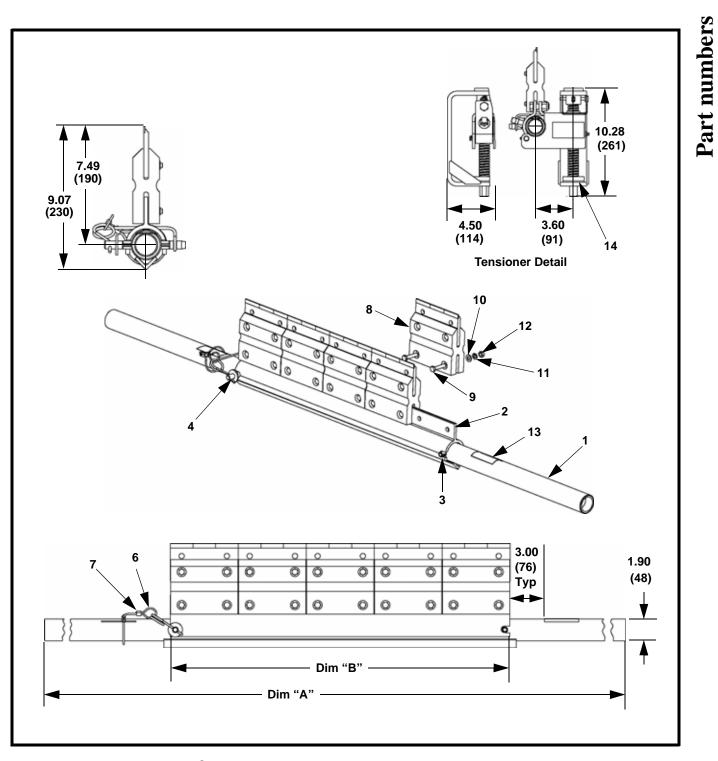


Figure 1. MARTIN[®] SQC2TM Belt Cleaner Assembly, P/N SQC2-XXXXXXXXXXXX

SQC2C-	XX	X	XX	XX	X	X
Belt Width	XX					
Blade Type		Х				
Blade Cleaning Width			XX			
Buffer Type				XX		
Cartridge Option					X	
Additional Options						X

Table I: Complete Replacement Cartridge

ltem	Qty.	Description	Part Number
1	1	MARTIN [®] SQC2 [™] Mainframe Weldment	see Table III
2	1	Blade Extrusion	see Table III
3	1	Pin Slotted Spring 1/2 x 3 ZP	33840
4	1	Pin Snap Lock 1/2	33841
5 (NS)	1	Urethane Shipping Pin	35846
6	2 ft	Cable Aircraft 1/8 Dia.	100107
7	2	Cable Clip for .125 Dia. Cable	23481
8	see Table III	SCORPIO [®] Secondary Blade Assembly	see Table IV
9	see Table III	Screw HHC 5/16-18NC x 1-1/2 SS	SP04436-30
10	see Table III	Washer Flat 5/16 Narrow SS	37724
11	see Table III	Washer Lock Helical Spring 5/16 SS	33055
12	see Table III	Nut Hex 5/16-18NC Narrow SS	37723
13	2	Label Martin Products	38048
14	1	MARTIN [®] SQC2™ Tensioner	see Table V
15 (NS)	1	MARTIN [®] QC [™] #2 Cover Door Assembly	35857
16 (NS)	1	Manual Operator's	M3682
17 (NS)	1	Split Dust-Tight Door Assembly	38014-SQC

NS = Not Shown

Note: For dual units, double the quantities for all parts except the tensioner.

Part numbers

Table III: MARTIN[®] SQC2TM Part Number Breakdown

P							
Part No.* (Steel Mainframe)	Dim "A" Mainframe Length	Dim "B" Blade Width	P/N Item 1**	P/N Item 2	Qty Ite m 8	Qty Items 9-12	Weight [lbs]
SQC2-18X12XXXXX	48.94 [1243]	11.81 [300]	SQC2-35694-18S	SQC2-35696-18	2	4	58.8
SQC2-18X18XXXXX	48.94 [1243]	17.72 [450]	SQC2-35694-18F	SQC2-35696-24	3	6	65.0
SQC2-24X18XXXXX	54.85 [1393]	17.72 [450]	SQC2-35674-24S	SQC2-35696-24	3	6	67.4
SQC2-24X24XXXXX	54.85 [1393]	23.62 [600]	SQC2-35694-24F	SQC2-35696-30	4	8	73.6
SQC2-30X24XXXXX	60.75 [1543]	23.62 [600]	SQC2-35694-30S	SQC2-35696-30	4	8	76.0
SQC2-30X30XXXXX	60.75 [1543]	29.53 [750]	SQC2-35694-30F	SQC2-35696-36	5	10	82.2
SQC2-36X30XXXXX	66.66 [1693]	29.53 [750]	SQC2-35694-36S	SQC2-35696-36	5	10	84.6
SQC2-36X35XXXXX	66.66 [1693]	35.43 [900]	SQC2-35694-36F	SQC2-35696-42	6	12	90.8
SQC2-42X35XXXXX	72.56 [1843]	35.43 [900]	SQC2-35694-42S	SQC2-35696-42	6	12	93.2
SQC2-42X41XXXXX	72.56 [1843]	41.34 [1050]	SQC2-35694-42F	SQC2-35696-48	7	14	99.4
SQC2-48X41XXXXX	78.47 [1993]	41.34 [1050]	SQC2-35694-48S	SQC2-35696-48	7	14	101.8
SQC2-48X47XXXXX	78.47 [1993]	47.24 [1200]	SQC2-35694-48F	SQC2-35696-54	8	16	108.0
SQC2-54X47XXXXX	84.37 [2143]	47.24 [1200]	SQC2-35694-54S	SQC2-35696-54	8	16	110.4
SQC2-54X53XXXXX	84.37 [2143]	53.15 [1350]	SQC2-35694-54F	SQC2-35696-60	9	18	116.6
SQC2-60X53XXXXX	90.28 [2293]	53.15 [1350]	SQC2-35694-60S	SQC2-35696-60	9	18	119.0
SQC2-60X59XXXXX	90.28 [2293]	59.06 [1500]	SQC2-35694-60F	SQC2-35696-66	10	20	125.2
SQC2-66X59XXXXX	96.19 [2443]	59.06 [1500]	SQC2-35694-66S	SQC2-35696-66	10	20	127.6
SQC2-66X65XXXXX	96.19 [2443]	64.96 [1650]	SQC2-35694-66F	SQC2-35696-72	11	22	133.8
SQC2-72X65XXXXX	102.09 [2593]	64.96 [1650]	SQC2-35694-72S	SQC2-35696-72	11	22	136.2
SQC2-72X71XXXXX	102.09 [2593]	70.87 [1800]	SQC2-35694-72F	SQC2-35696-78	12	24	142.4
SQC2-78X71XXXXX	108.00 [2743]	70.87 [1800]	SQC2-35694-78S	SQC2-35696-78	12	24	144.8
SQC2-78X77XXXXX	108.00 [2743]	76.77 [1950]	SQC2-35694-78F	SQC2-35696-84	13	26	151.0
SQC2-84X77XXXXX	113.90 [2893]	76.77 [1950]	SQC2-35694-84S	SQC2-35696-84	13	26	153.4
SQC2-84X83XXXXX	113.90 [2893]	82.68 [2100]	SQC2-35694-84F	SQC2-35696-90	14	28	159.6
SQC2-90X83XXXXX	119.81 [3043]	82.68 [2100]	SQC2-35694-90S	SQC2-35696-90	14	28	162.0
SQC2-90X89XXXXX	119.81 [3043]	88.58 [2250]	SQC2-35694-90F	SQC2-35696-96	15	30	168.2
SQC2-96X89XXXXX	125.71 [3193]	88.58 [2250]	SQC2-35694-96S	SQC2-35696-96	15	30	170.6
· · · · · · · · · · · · · · · · · · ·	•	•				•	•

* Replace third X from end with S for Stainless Steel Mainframe or P for Painted Orange Mainframe. ** For Stainless Steel Mainframe, add S to the end of the part number.

Table IV: MARTIN[®] SQC2TM Blade Chart

Part No.*	P/N Item 8	Color	General Application
SQC2-XXCXXXXXXX	SC-XXC	WHITE	General Conditions Belt with Clips
SQC2-XXDXXXXXXX	SC-XXD	WHITE	High-Abrasion—General Vulcanized
SQC2-XXGXXXXXXX	SC-XXG	ORANGE	Acid-Resistant Belt with Clips
SQC2-XXHXXXXXXX	SC-XXH	ORANGE	Acid-Resistant
SQC2-XXRXXXXXXX	SC-XXR	ORANGE	General Conditions Reversing Belt with Clips

* Notes:

1) All dimensions are given in inches [mm].

2) In the P/N the first XX indicates belt width; the next X indicates blade type; the next XX indicates blade cleaning width; the next XX indicates buffer type; the next X indicates mainframe options; the next X indicates if a tensioner is included; the next X indicates if additional options are included.

Table V. MARTIN[®] SQC2TM Tensioner Chart

Part No. Item 14	Material
SQC2-35701	Steel
SQC2-35701-SS	316 SS

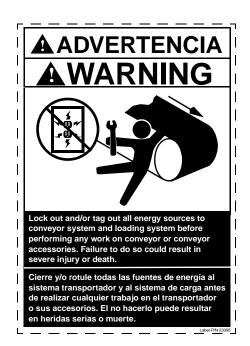
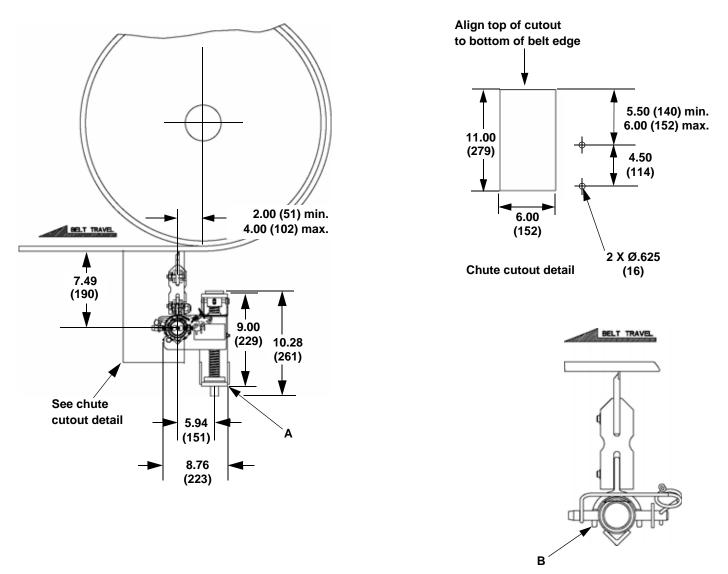


Figure 2. Conveyor Products Warning Label, P/N 23395

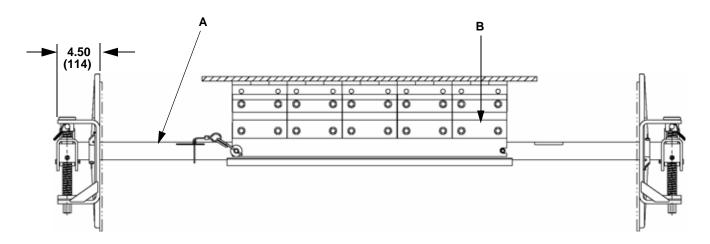


Figure 3. MARTIN[®] SQC2TM Tensioning Label, P/N SQC2-10002

Notes



A. MARTIN[®] SQC2[™] Belt Cleaner and Tensioner Assembly, P/N SQC2-XXXXXXXXXX
 B. MARTIN[®] SQC2[™] Belt Cleaner Blade Cartridge, P/N SQC2C-XXXXXXXXXX



Appendix

Notes

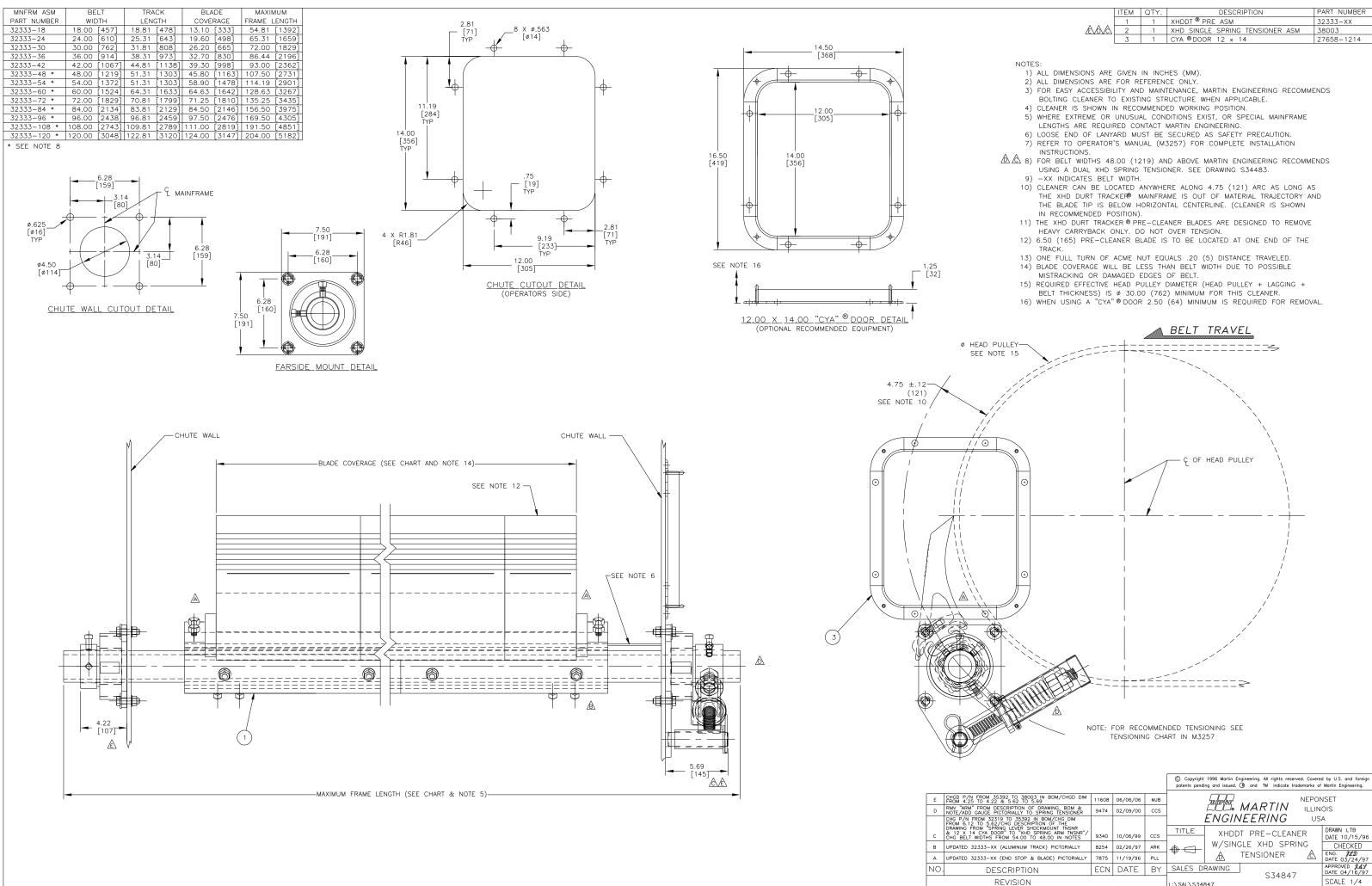


One Martin Place Neponset, IL 61345-9766 USA Phone: 309-594-2384 or 800-544-2947 FAX: 309-594-2432 www.martin-eng.com

QUALITY MANAGEMENT SYSTEM CERTIFIED BY DNV ISO 9001:2000

Form No. M3682-03/07

© MARTIN ENGINEERING COMPANY 2004, 2007



	ITEM	QTY.	DESCRIPTION	PART NUMBER
	1	1	XHDDT [®] PRE ASM	32333-XX
<u>AAA</u>	2	1	XHD SINGLE SPRING TENSIONER ASM	38003
	3	1	CYA®DOOR 12 x 14	27658-1214

L:\SAL\S34847