

Cage Free Egg Belt Return

Installation and Operators Manual



Installation and Operators Manual

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Introduction

Caution, Warning and Danger Decals have been placed on the equipment to warn of potentially dangerous situations. Care should be taken to keep this information intact and easy to read at all times. Replace missing or damaged safety decals immediately.

Safety–Alert Symbol



This is a safety–alert symbol. When you see this symbol on your equipment, be alert to the potential for personal injury. This equipment is designed to be installed and operated as safely as possible...however, hazards do exist.

Understanding Signal Words

Signal words are used in conjunction with the safety–alert symbol to identify the severity of the warning.



DANGER indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.



WARNING indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.



CAUTION indicates a hazardous situation which, if not avoided, **MAY** result in minor or moderate injury.

Follow Safety Instructions

Carefully read all safety messages in this manual and on your equipment safety signs. Follow recommended precautions and safe operating practices.

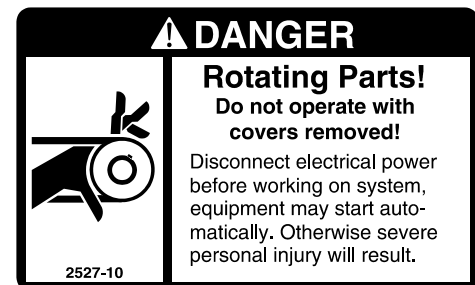
Keep safety signs in good condition. Replace missing or damaged safety signs.

Decal Descriptions

DANGER: Rotating Parts

Disconnect electrical power before working on system, equipment may start automatically. Otherwise personal injury will result.

Severe personal injury will result if the equipment is operated without covers properly installed.



DANGER: Electrical Hazard

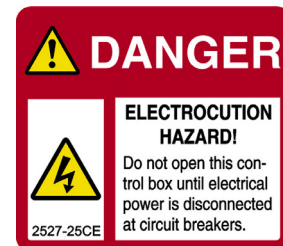
Disconnect electrical power before inspecting or servicing equipment unless maintenance instructions specifically state otherwise.

Ground all electrical equipment for safety.

All electrical wiring must be done by a qualified electrician in accordance with local and national electric codes.

Ground all non-current carrying metal parts to guard against electrical shock.

Electrical disconnects and over current protection are not supplied with the equipment.

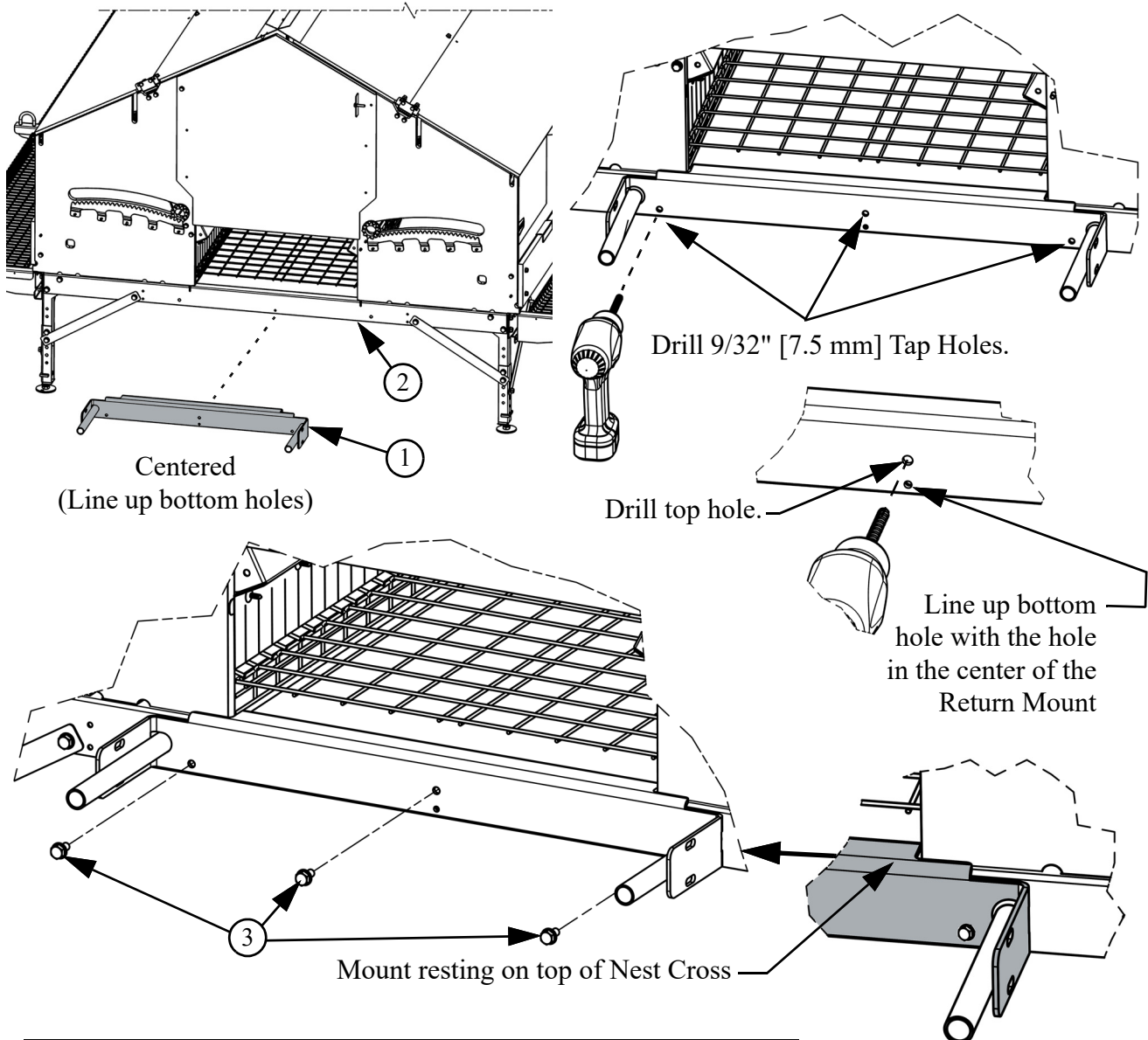


Installation

Egg Belt Return Mount

The Egg Belt Return mounts attach to the Nest Crosses at the end of the system the same for all Aviary systems. The example shown is the RDE Peaked Roof Nest.

1. Using the hole bottom hole in the center of the Nest Cross (**Item 2**) as a guide, Center a Egg Belt Return Mount (**Item 1**) at the end of the System and drill three 9/32" [7.5 mm] in the Nest Cross **as shown**.
2. Attach the Return Mount to the Nest Cross with M8 x 16 Taptites (**Item 3**).



		1x250mm	2x250	500mm	600mm
Item	Description	Part No.			
1	1x250mm Universal Egg Belt Mount	58313-1	--	--	--
	2x250mm Universal Egg Belt Mount	--	58313-2	--	--
	500mm Universal Egg Belt Mount	--	--	58313-3	--
	600mm Universal Egg Belt Mount	--	--	--	58313-4
2	Nest Cross	Varies			
3	M8 x 16 DIN7500D Taptite	201047	201047	201047	201047

Hardware Full Scale

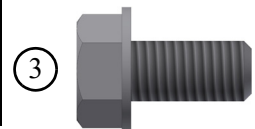
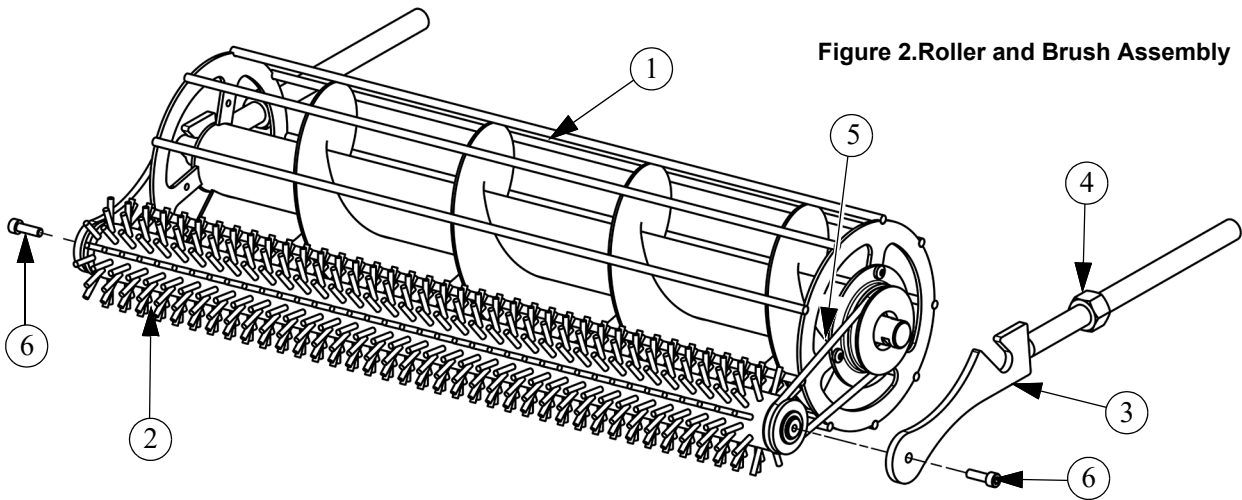


Figure 1.Return Mount

Roller and Brush Assembly/Installation

Some installations include a Brush. The example shown includes the Brush.

- 1. Installation for Returns without a Brush are identical minus the Brush components.
- 2. With a Belt (**Item 5**) in place, Fasten a Brush Assembly (**Item 2**) to the Egg Belt Tensioner Weldments (**Item 3**) with M6x20 Cap Screws (**Item 6**) as shown.
- 3. Install M16 Nuts (**Item 4**) onto the Tensioner Weldments approximately as shown. These Nuts will be used for tensioning later.



		1x250 with Brush	1x250 w/o Brush	2x250 w/o Brush	500mm with Brush	600mm with Brush
Item	Description	Part Number				
1	1 x 250mm Return Roller Assembly	604310 ASS	604310 ASS	--	--	--
	2 x 250mm Return Roller Assembly	--	--	58132	--	--
	500mm Return Roller Assembly	--	--	--	604312 ASS	--
	600mm Return Roller Assembly	--	--	--	--	58093
2	1 x 250mm Egg Belt Return Brush Assembly	Varies	--	--	--	--
	500mm Egg Belt Return Brush Assembly	--	--	--	Varies	--
	600mm Egg Belt Return Brush Assembly	--	--	--	--	Varies
3	Egg Belt Tensioner Weldment	58232	58232	58232	58232	58232
4	M16 DIN 934 Hx Nut	201076	201076	201076	201076	201076
5	365mm Brush Belt	58229	--	--	58229	58229
6	M6 x 20 DIN912 Cylinder Head Cap Screw	201163	--	--	201163	201163

Figure 2. Roller and Brush Assembly

- 4. Install the Return Roller Assembly into the Return Mount as shown.

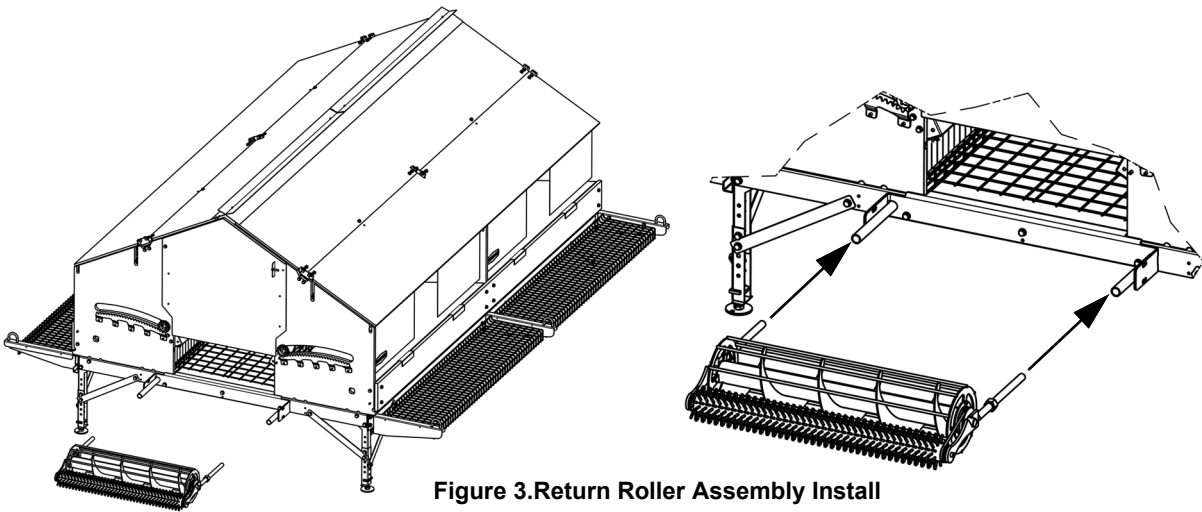
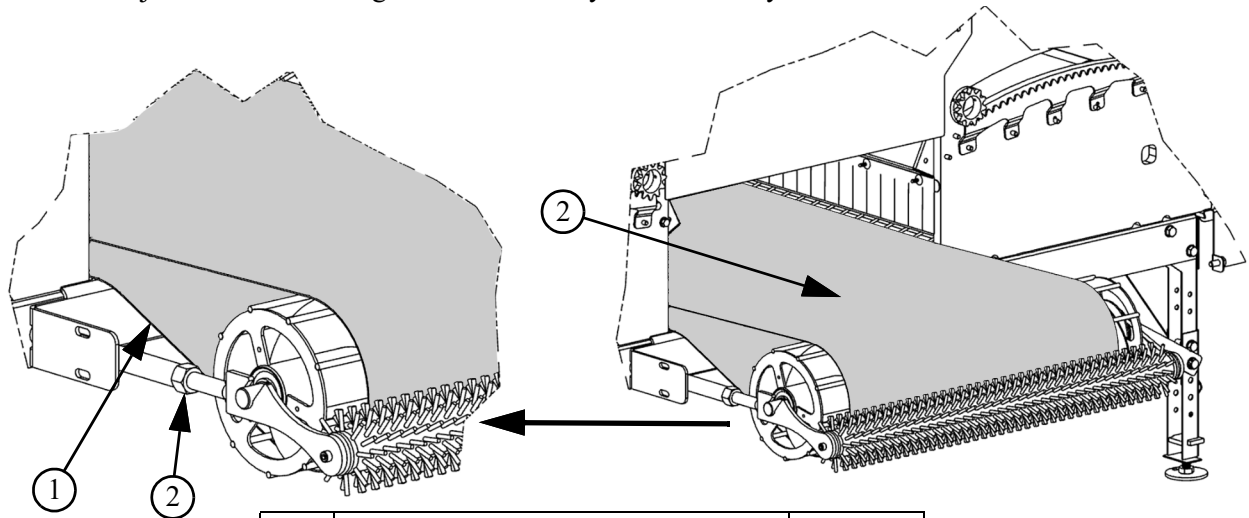


Figure 3. Return Roller Assembly Install

Belt Installation

1. Install the Belt (**Item 1**).
2. Tension the Belt using the Adjustment Nuts (**Item 2**).
3. Use the Adjustment Nuts to align the Belts so they track correctly.



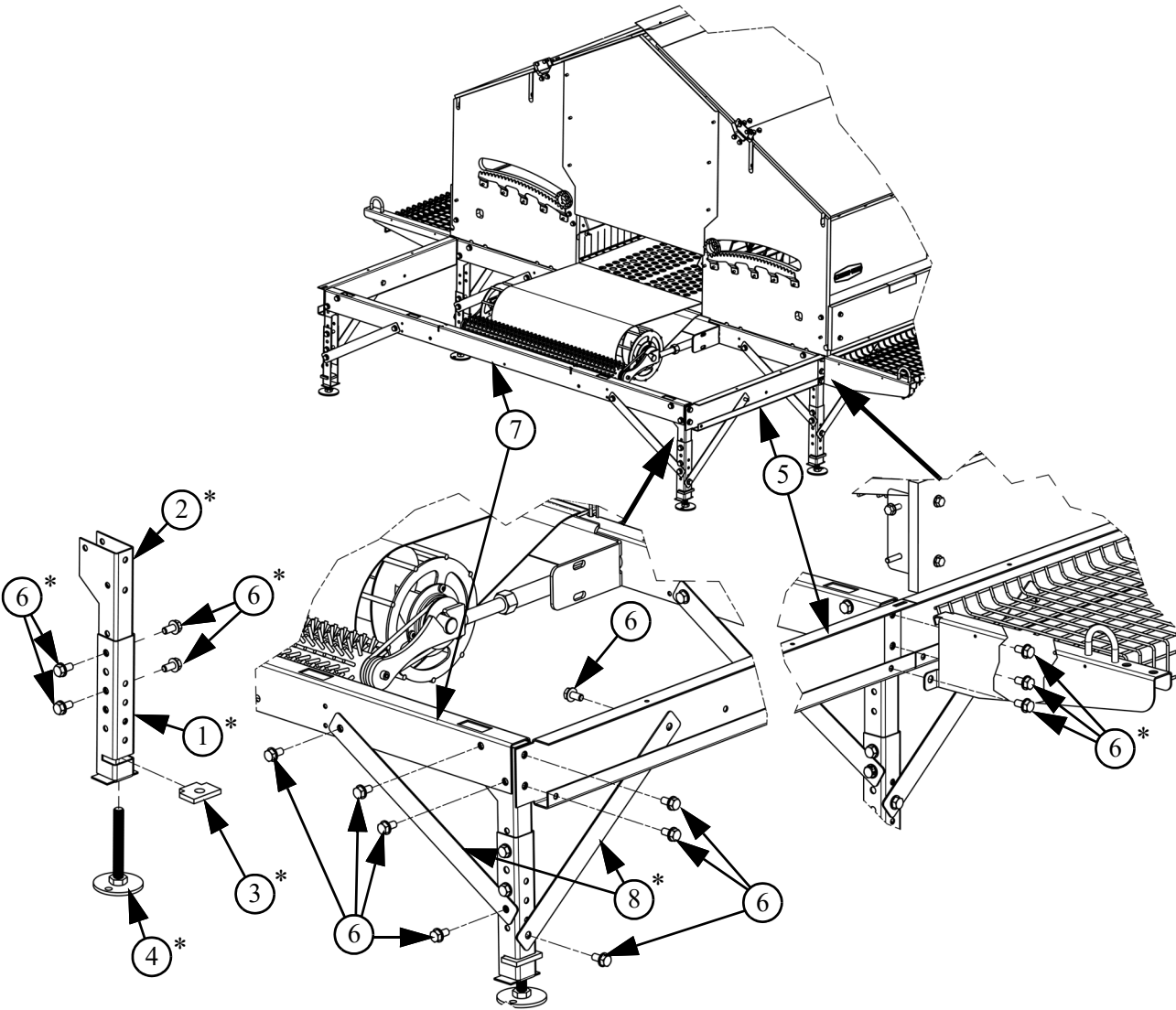
Item	Description	Part No.
1	Belt	Varies
2	Adjustment Nut	201076

Figure 4. Belt Installation

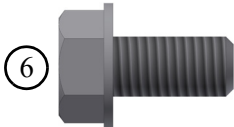
Return Platform Kit

Legs and Framework

- 1. Adjust and Assemble the Front Legs **as shown**.
- 2. Install the Leg Assemblies, Nest Front Rails (**Item 5**), a Nest Cross (**Item 7**) and Strut Strips (**Item 8**) using M8 Hardware **as shown**.



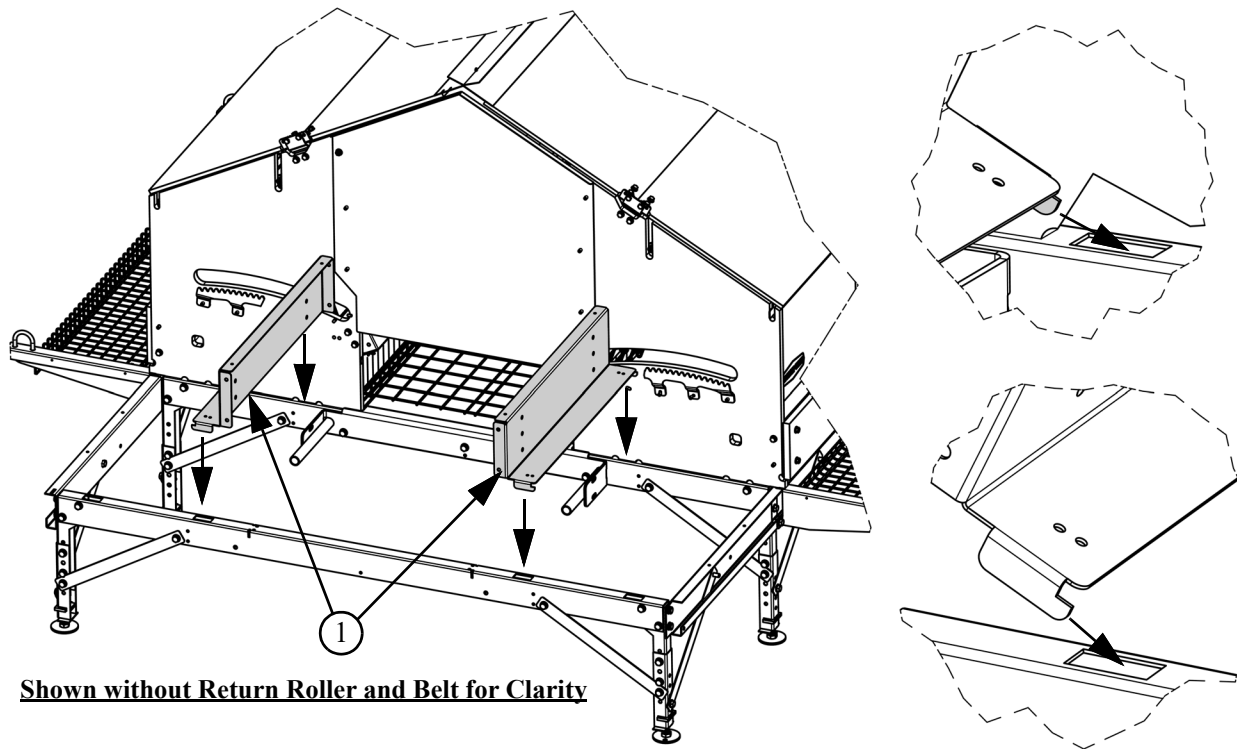
Hardware Full Scale



		58319	58320	58321
		RDE 49	RFE 52	RDE 58
Item	Description	Part No.		
1 *	Short SS Leveling Leg	Varies	Varies	Varies
2 *	Short Nest Leg	Varies	Varies	Varies
3 *	M12 Leveling Plate	56997	56997	56997
4 *	Leveling Foot Weldment	57320	57320	57320
5	.6m Nest Front Rail	57637	57637	57637
6	M8 x 16 DIN7500D Taptite	201047	201047	201047
	RDE 49 Nest Cross	57340	--	--
	RDE 52 Nest Cross	--	57895	--
8 *	RDE 58 Nest Cross	--	--	57317
	Strut Strip (Not used in all Systems)	600734	600734	600734
*Not Included in Platform Kit				

Figure 5.Return Platform Kit

3. Install two Platform Return Side Panels (Item 1) by inserting the Tabs into the slots in the Nest Crosses as **shown**. Once the Tabs are inserted the Panels should be slid towards the outside of the nest.



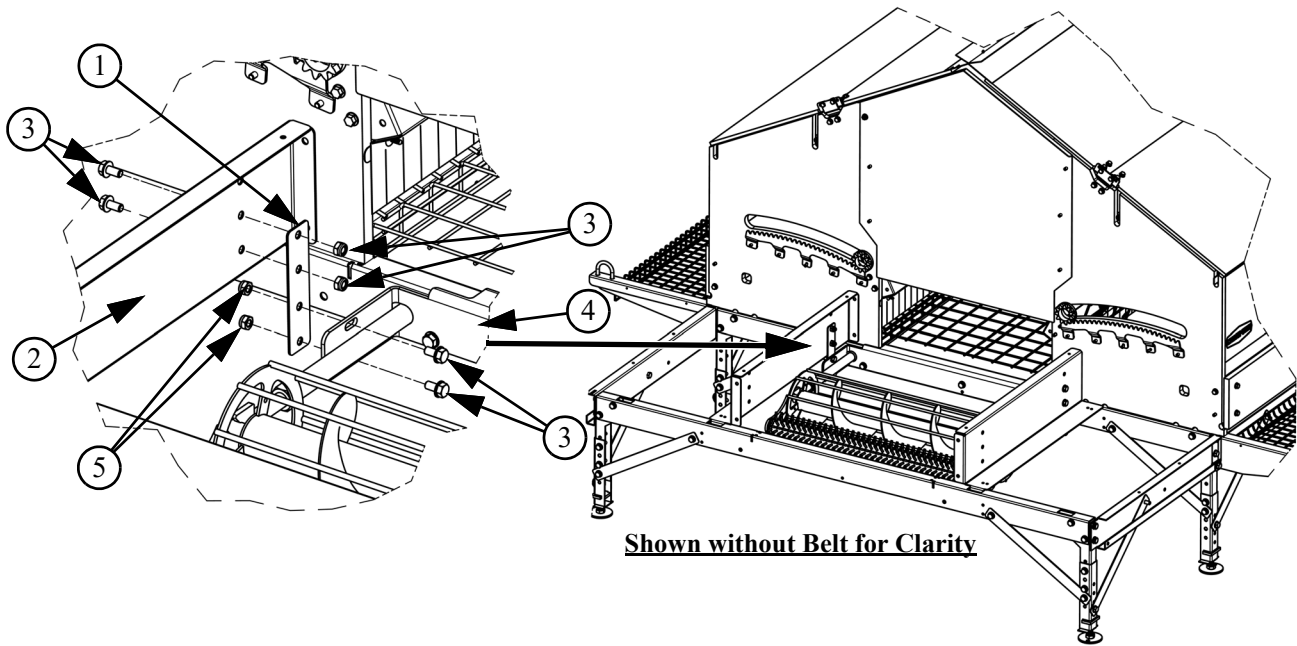
Item	Description	Part No.
1	Platform Return Side Panel	58436

Figure 6. Platform Return Side Panels

The Egg Belt Return Roller Assembly attaches to the Return Platform. Two Tier systems require a Telescoping Brace. For Two Tier Systems See “Platform Return Side Panels & Telescoping Return Brace Kit for RDE Two Tier Systems” on page 10.

Platform Return Side Panels for One Tier Systems

- 1. Attach two Platform Return Support Brackets (**Item 1**) to the Platform Return Side Panels (**Item 2**) with M8 x 16 Taptites (**Item 3**) and M8 Lock Nuts (**Item 5**).
- 2. Attach the Universal Egg Belt Wldmt. Mount (**Item 4**) to the Platform Return Support Brackets (**Item 1**) with M8 x16 Taptites (**Item 3**) and M8 Lock Nuts (**Item 5**).



Hardware Full Scale

Item	Description	Part No.
1	Platform Return Support Bracket	58114
2	Platform Return Side Panel	Varies
3	M8 x 16 DIN7500D Taptite	201047
4	Universal Egg Belt Wldmt. Mount	58306-X
5	M8 DIN985 Lock Nut	201003

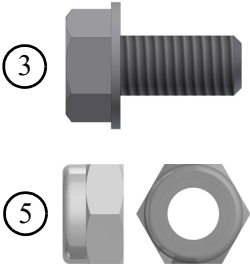


Figure 7.Egg Belt Return Platform

Platform Return Side Panels & Telescoping Return Brace Kit for RDE Two Tier Systems

Two Tier RDE Systems require a Telescoping Return Brace Kit (**Part No. 58442**)

1. Attach two Platform Return Support Brackets (**Item 1**) to the Universal Egg Belt Wldmt. Mount (**Item 4**) with M8 x16 Taptites (**Item 3**) and M8 Lock Nuts (**Item 5**).
2. Attach Telescoping Braces (**Item 6**) to the Platform Return Side Panels (**Item 2**) and the Platform Return Support Brackets (**Item 1**) with M8 x 16 Taptites (**Item 3**) and M8 Lock Nuts (**Item 5**).
3. Attach another Telescoping Brace (**Item 6**) to the upper Universal Egg Belt Wldmt. Mount (**Item 4**) and to the Platform Return Support Brackets (**Item 1**) with M8 x16 Taptites (**Item 3**) and M8 Lock Nuts (**Item 5**).
4. Attach the Telescoping Braces together with M8 x16 Taptites (**Item 3**) and M8 Lock Nuts (**Item 5**).

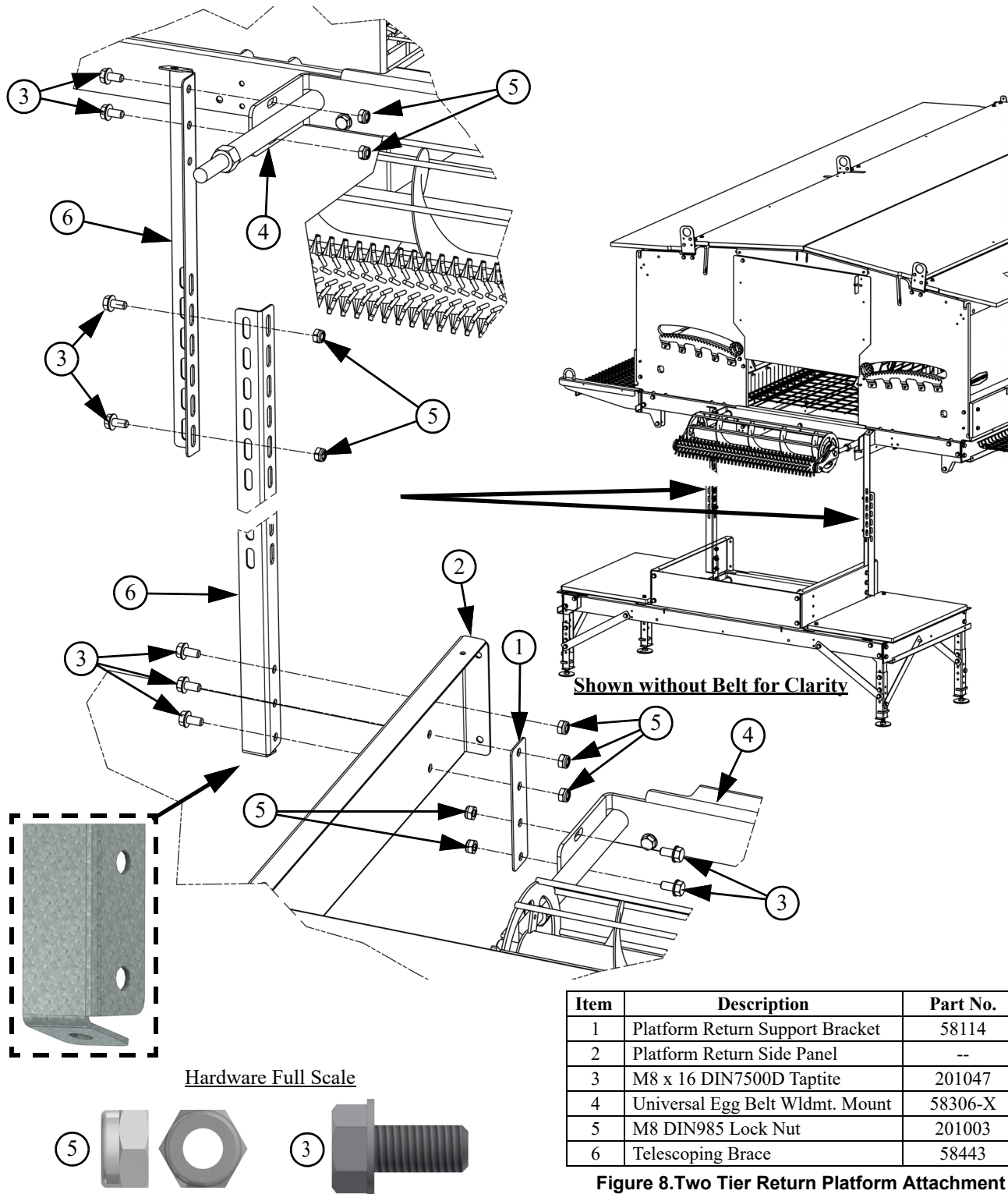


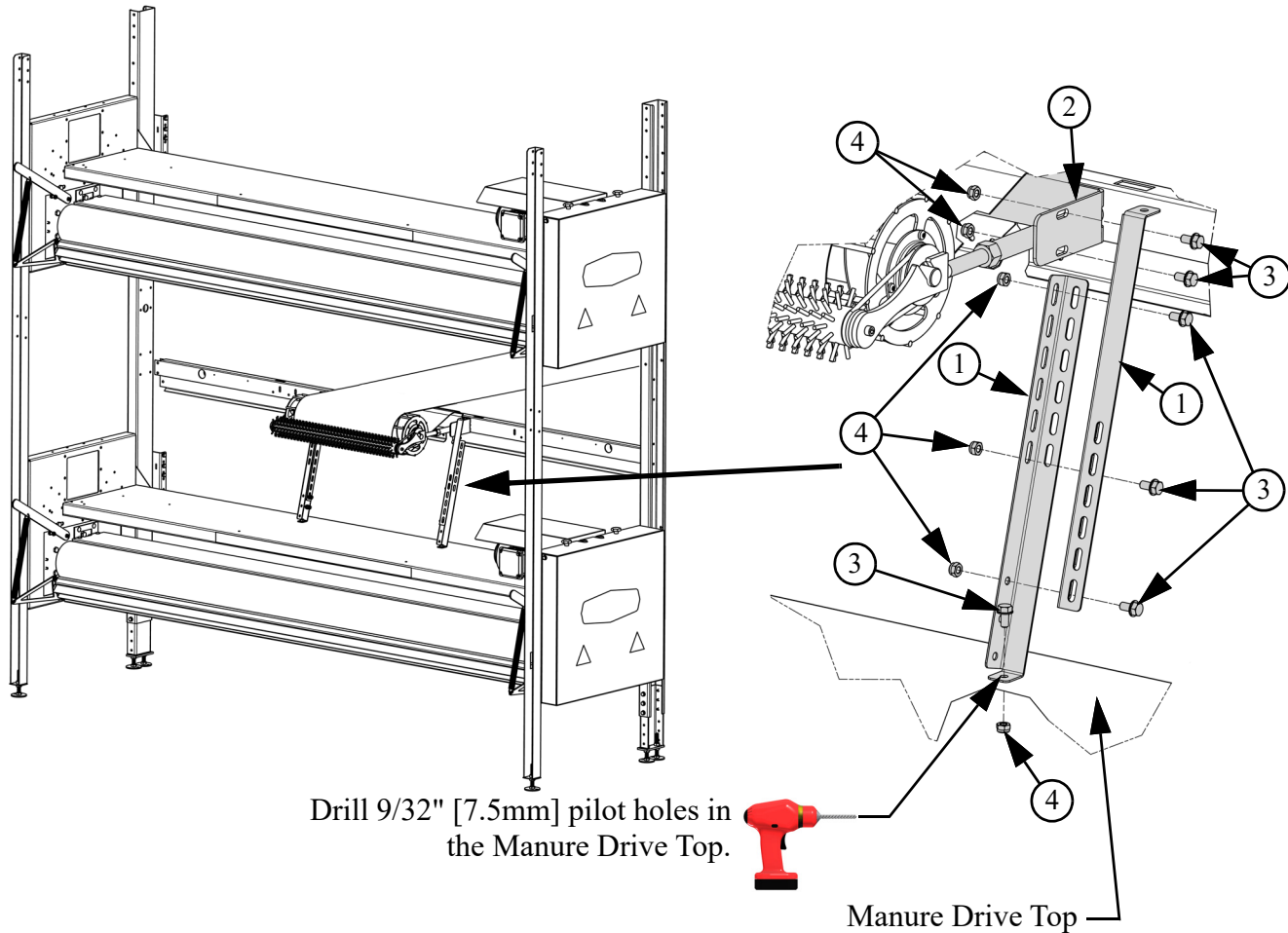
Figure 8. Two Tier Return Platform Attachment

Vike™ Telescoping Return Brace Installation

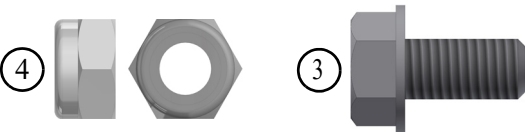
Note: Telescoping Return Braces are not compatible with Vike™ Adapt systems.

Attaching to a Manure Belt Drive requires a Telescoping Return Brace Kit (**Part No. 58442**).

- 1. Attach a Telescoping Brace (**Item 1**) to the Universal Egg Belt Wldmt. Mount (**Item 2**) with M8 x16 Taptites (**Item 3**) and M8 Lock Nuts (**Item 4**).
- 2. Install a second Telescoping Brace (**Item 1**) temporarily using M8 Hardware **as shown** using the hole in the Telescoping Brace as a guide, drill a hole in the Manure Drive Top.
- 3. Attach the Telescoping Brace to the Manure Drive Top with a M8 Taptite and Lock Nuts (**Item 4**).
- 4. Adjust and tighten the hardware.



Hardware Full Scale

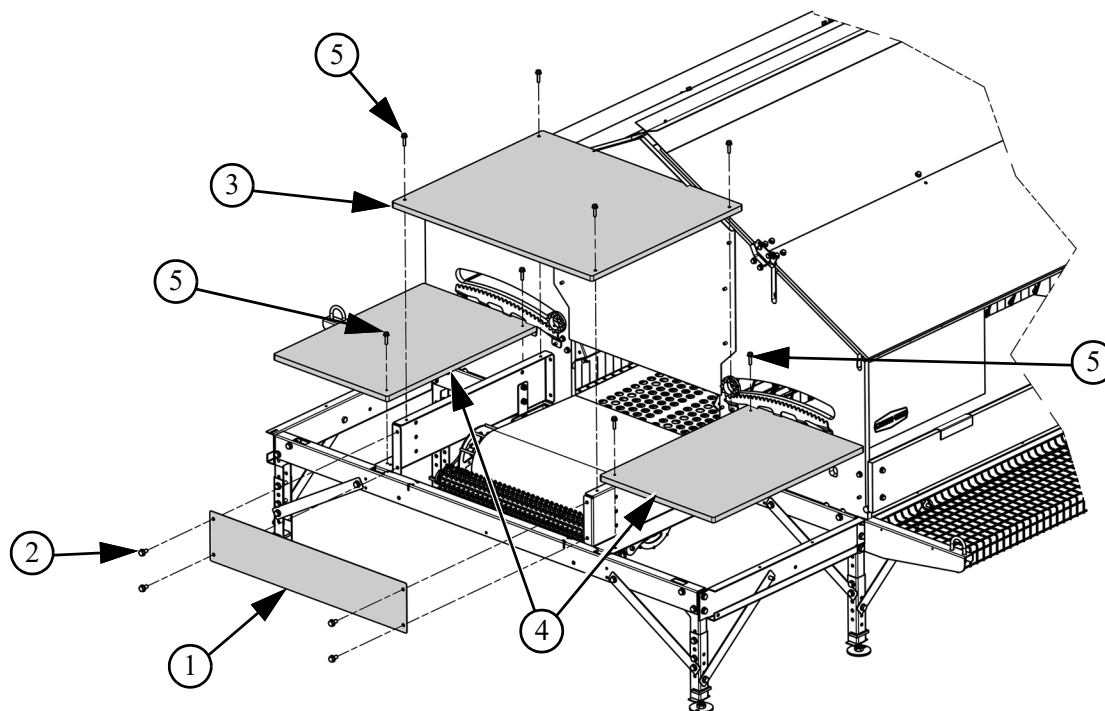


Item	Description	Part No.
1	Telescoping Brace	58443
2	Universal Egg Belt Wldmt. Mount	58306-X
3	M8 x 16 DIN7500D Taptite	201047
4	M8 DIN985 Lock Nut	201003

Figure 9.Vike™ Telescoping Brace Attachment

Return Platform Front Covers

1. Install the Return Platform Front Cover (**Item 1**) using M8 x 16 Taptites (**Item 2**) as shown.
2. Install a Return Platform Center Cover (**Item 3**) and two Egg Belt Return Platforms (**Item 4**) using M6 x 25 Taptites (**Item 5**).



		58319 RDE 49	58320 RFE 52	58321 RDE 58
Item	Description	Part No.		
1	Return Platform Front Cover	58148	58148	58148
2	M8 x 16 DIN7500D Taptite	201047	201047	201047
3	Egg Belt Return Platform Center Cover	57955	57955	57955
4	RDE49 Classic Egg Belt Return Platform	57893	--	--
	RDE52 Classic Egg Belt Return Platform	--	57953	--
	RDE58 Classic Egg Belt Return Platform	--	--	57635
5	M6 x 25 DIN7500D Taptite	201067	201067	201067

Hardware Full Scale

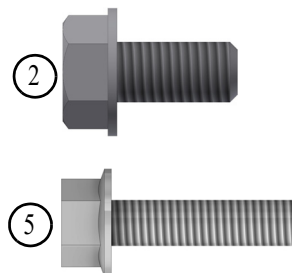
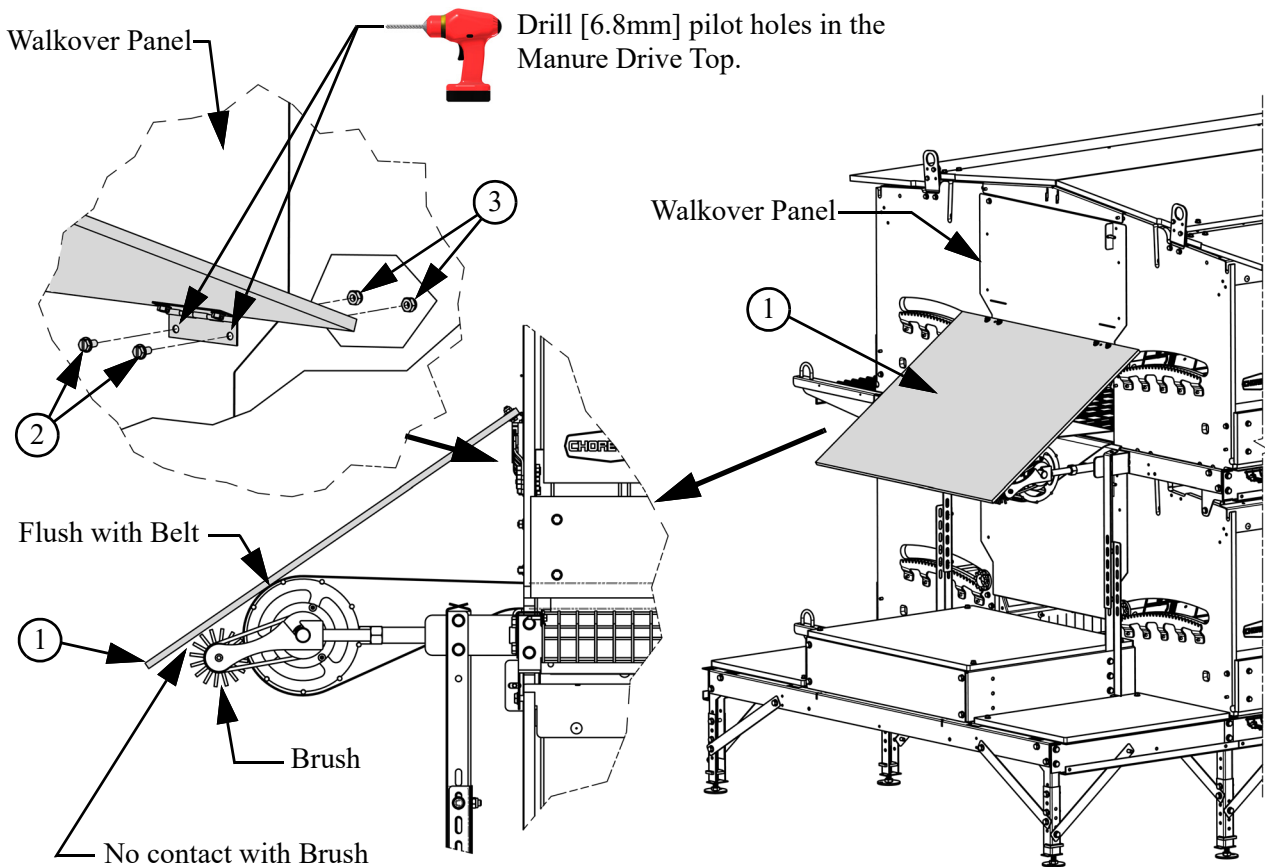


Figure 10. Return Platform Front Covers

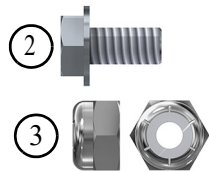
Egg Belt Return Cover 604347 ASS & 604348 ASS

The Egg Belt Return Cover Assembly (**Item 1**) attaches to the Walkover Panel. It installs so that it rests on the Belt but does not contact the Brush if your system has one.

- 1. Hold the Egg Belt Return Cover Assembly (**Item 1**) in place, resting on the Egg Belt but not contacting the Brush **as shown**.
- 2. Use the holes in the Hinges as guides to drill [6.8mm] Holes in the Walkover Panels.
- 3. Fasten with 10-24 HXWH Screws (**Item 2**) and #10 Lock Nuts (**Item 3**) that were included with the Assembly.



Hardware Full Scale



Item	Description	Part No.	
1	750mm Egg Belt Return Cover Assembly	604347 ASS	--
	500mm Egg Belt Return Cover Assembly	--	604348 ASS
2*	10-24x.375 HXWH Screw	25124	25124
3*	10-24 HX Lock Nut w/Nylon Insert	34019	34019
*Included with 604347 ASS			

Figure 11.Egg Belt Return Cover

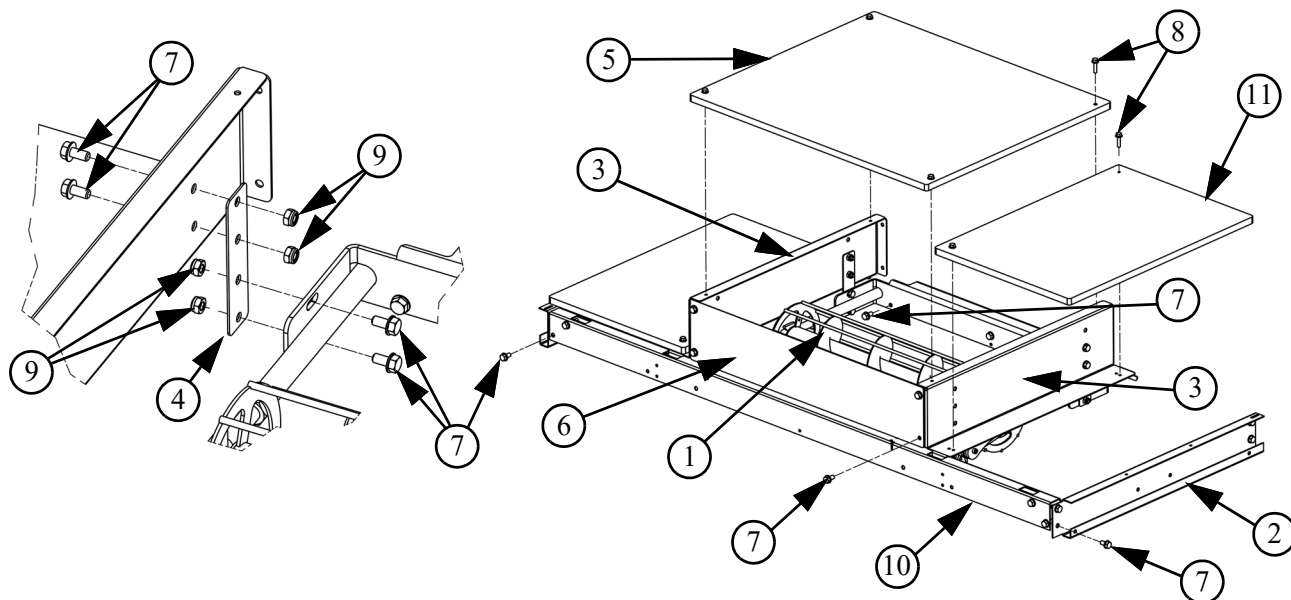
Egg Belt Return (58230-X)



Part Numbers

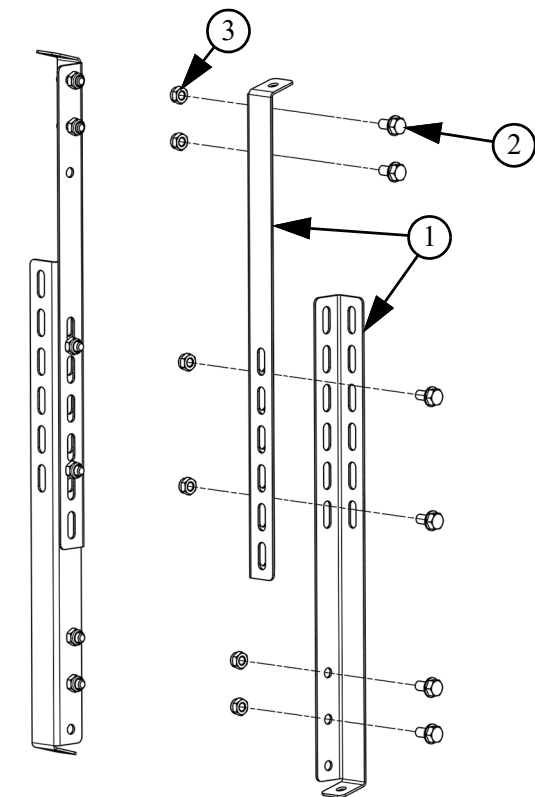
		58230-1	58230-2	58230-3	58230-4	58230-5
Item	Description	Part Number				
1	1x250mm Universal Egg Belt Wldmt. Mount	58313-1	58313-1	--	--	--
	2x250mm Universal Egg Belt Wldmt. Mount	--	--	58313-2	--	--
	500mm Universal Egg Belt Wldmt. Mount	--	--	--	58313-3	--
	600mm Universal Egg Belt Wldmt. Mount	--	--	--	--	58313-4
2	1 x 250mm Return Roller Assembly	604310 ASS	604310 ASS	--	--	--
	2 x 250mm Return Roller Assembly	--	--	58132	--	--
	500mm Return Roller Assembly	--	--	--	604312 ASS	--
	600mm Return Roller Assembly	--	--	--	--	58093
3	1 x 250mm Egg Belt Brush Shaft	58233-1	--	--	--	--
	500mm Egg Belt Brush Shaft	--	--	--	58233-2	--
	600mm Egg Belt Brush Shaft	--	--	--	--	58233-3
4	1 x 250mm Egg Belt Return Brush	58234-1	--	--	--	--
	500mm Egg Belt Return Brush	--	--	--	58234-2	--
	600mm Egg Belt Return Brush	--	--	--	--	58234-3
5	Flanged Pulley	58322	--	--	58322	58322
6	Egg Belt Tensioner Weldment	58232	58232	58232	58232	58232
7	M16 DIN 934 Hx Nut	201076	201076	201076	201076	201076
8	365mm Brush Belt	58229	--	--	58229	58229
9	M8 x 16 DIN7500D Taptite	201047	201047	201047	201047	201047
10	M5 x 8 DIN7500C Taptite	201105	--	--	201105	201105
12	16x20x16mm ISO2795 Flanged Bushing	58711	--	--	58711	58711
13	M6 x 20 DIN912 Cylinder Head Cap Screw	201163	--	--	201163	201163
14*	20mm Dia. 1.2mm thick Retaining Ring	604346	604346	604346	604346	604346
15*	Roller Shaft	604340	604340	58133	604342	58092
*Included with Roller Assembly						

RDE Egg Belt Platform Return Kit



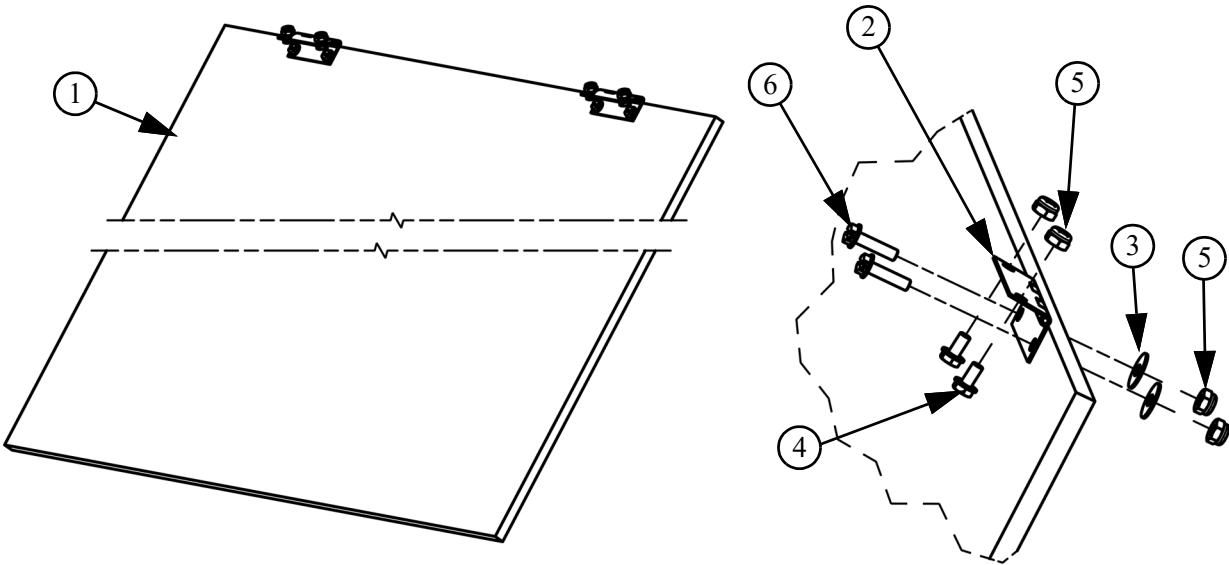
		58319 RDE 49	58320 RFE 52	58321 RDE 58
Item	Description	Part No.		
1	500mm Universal Egg Belt Return	58230-4	58230-4	58230-4
2	.6m Nest Front Rail	57637	57637	57637
3	Platform Return Side Panel	58436	58436	58436
4	Platform Return Support Bracket	58114	58114	58114
5	Egg Belt Return Platform Center Cover	57955	57955	57955
6	Return Platform Front Cover	58148	58148	58148
7	M8 x 16 DIN7500D Taptite	201047	201047	201047
8	M6 x 25 DIN7500D Taptite	201067	201067	201067
9	M8 DIN985 Lock Nut	201003	201003	201003
10	RDE 49 Nest Cross	57340	--	--
	RDE 52 Nest Cross	--	57895	--
	RDE 58 Nest Cross	--	--	57317
11	RDE49 Classic Egg Belt Return Platform	57893	--	--
	RDE52 Classic Egg Belt Return Platform	--	57953	--
	RDE58 Classic Egg Belt Return Platform	--	--	57635

Telescoping Return Brace Kit (58442)

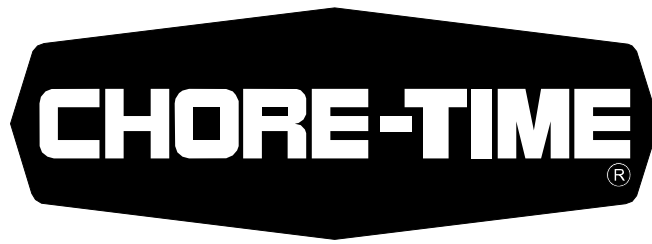


Item	Description	Part No.
1	Telescoping Brace	58443
2	M8 x 16 DIN7500D Taptite	201047
3	M8 DIN985 Lock Nut	201003

Egg Belt Return Cover (604347 ASS) and (604348 ASS)



		604347 ASS	604348 ASS
Item	Description	Part No.	
1	750mm Egg Belt Return Cover Panel	604347	--
	500mm Egg Belt Return Cover Panel	--	604348
2	1.5 x 2.5 Stainless Hinge	ST11051	ST11051
3	.203x.625x.044 Washer	6723	6723
4	10-24x.375 HXWH Screw	25124	25124
5	10-24 HX Lock Nut w/Nylon Insert	34019	34019
6	10-24x.750 HXWH Mach. Screw	20828	20828



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Revisions to this Manual

Page No.	Description of Change	ECO
	New Manual	41058

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