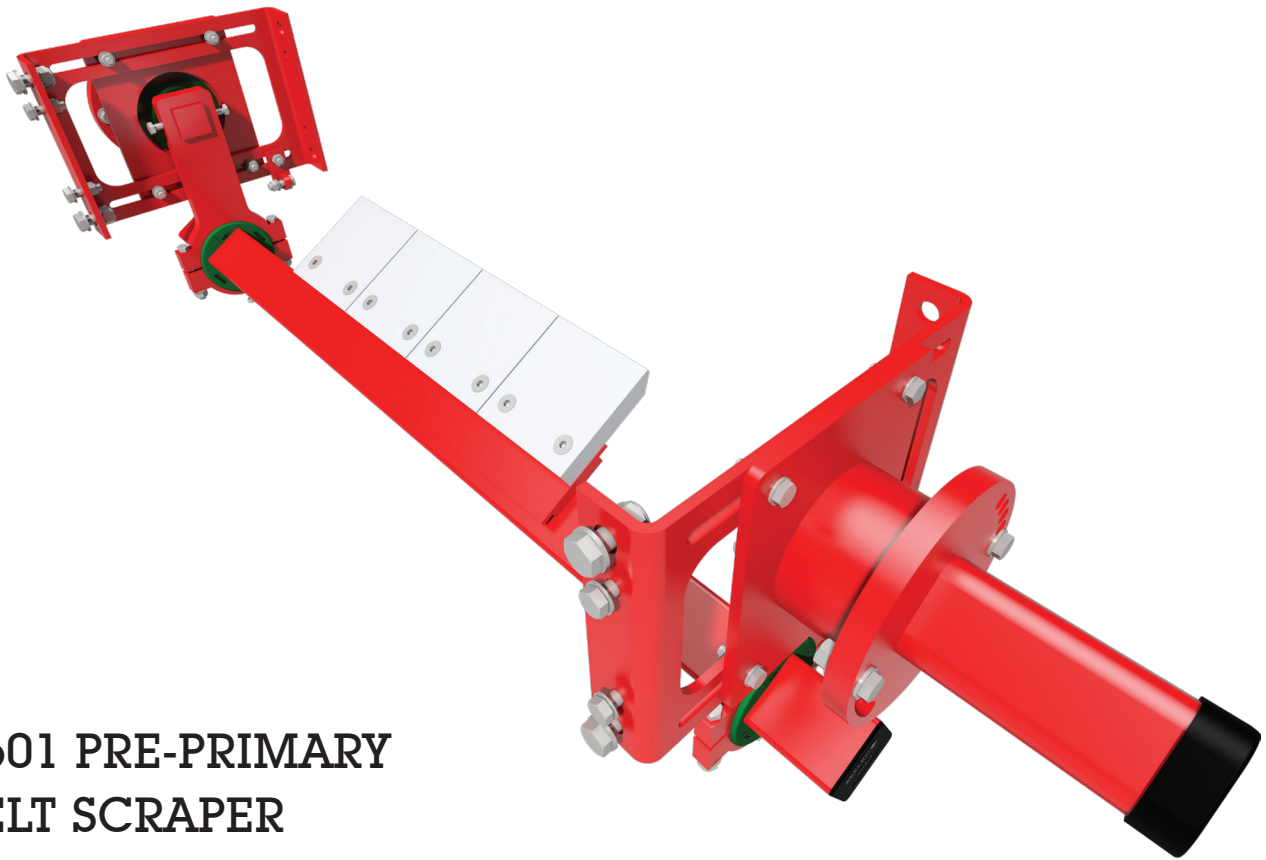


INSTALLATION, OPERATING & MAINTENANCE MANUAL



E601 PRE-PRIMARY BELT SCRAPER

PATENTED

Model Number	:	
Purchase Date	:	
Purchased From	:	
Installation Date	:	

Model number information can be found on the Label found on the scraper carton. This information will be helpful for any future inquiries or questions about belt scraper replacement parts, specifications or troubleshooting.

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1. Disclaimer

Brelko conveyor products (pty) ltd 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. Brelko's liability shall be limited to repair or replacement of equipment shown to be defective.

2. Safety Note

Observe all safety rules given herein along with owner and Government standards and regulations. Know and understand lockout/tag-out procedures as defined by National Standards Institutes, National Standard for Personnel Protection - Lockout/Tag-out of Energy Sources - Minimum Safety Requirements and Occupational Health and Safety.

3. 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:

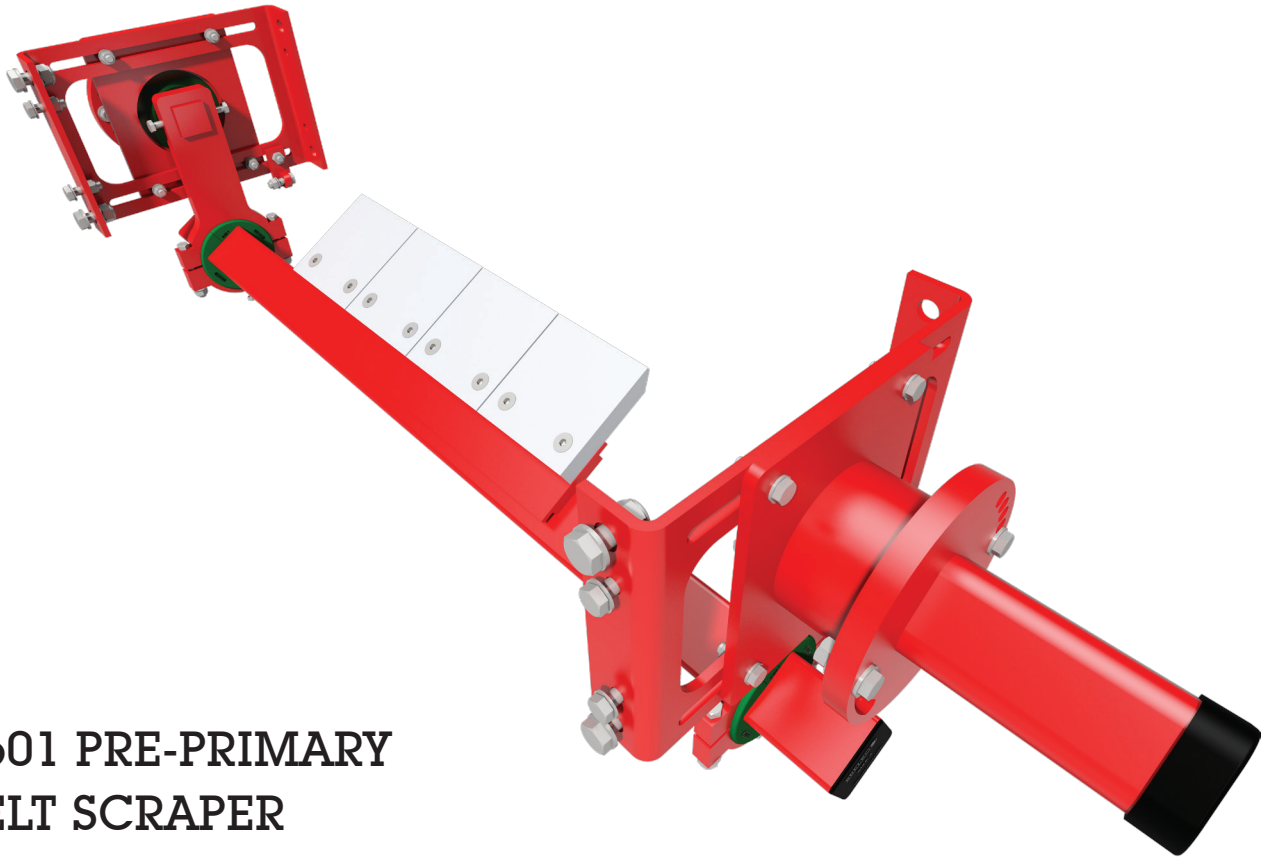
Important: Instructions that must be followed to ensure proper installation/operation of equipment.

Note:

Note: General statements to assist the reader.

4. General Information

Brelko belt scrapers are designed to operate with minimum maintenance. However, to maintain superior performance some service is required. When the scraper is installed a regular maintenance program should be set up. This program will ensure that the scraper operates at optimal efficiency and problems can be identified and fixed before the scraper stops working. All safety procedures for inspection of equipment (stationary or operating) must be observed. Secondary Scrapers operates at the discharge end of the conveyor and is in direct contact with the moving belt. Only visual observations can be made while the belt is running. Service tasks can be done only with the conveyor stopped and by observing the correct lockout/tag-out procedures.



E601 PRE-PRIMARY BELT SCRAPER

PATENTED

APPLICATIONS

- As a Pre-Primary Scraper, working in the head pulley zone, not in contact with the belt.
- Used in conjunction with Brelko Primary and Secondary scrapers.
- Particularly suited for mud-rush and severe carry back situations.
- Suitable for all types of conveyor belts and metal fastener systems.

FEATURES

- Adjustable Brelko torsion twist tensioners allow the scraper to maintain a constant pressure against the material flow, are self adjusting and allow the scraper to deflect away from any obstruction, as a significant safety feature.
- Multi-blade construction in wear resistant steel for impact situations or ceramic blades for non-impact high abrasion situations or conditions.
- Scraper adjustment is such that the blades do not contact the belt, but only operate when the carryover material is excessive.
- Compact torsion twist tensioners for easy adjustment.
- Chute side mountings for easy adjustment and installation.
- Robust and streamlined scraper construction prevents material build-up on the scraper.
- Ceramic or VRN 400 blades for long life.

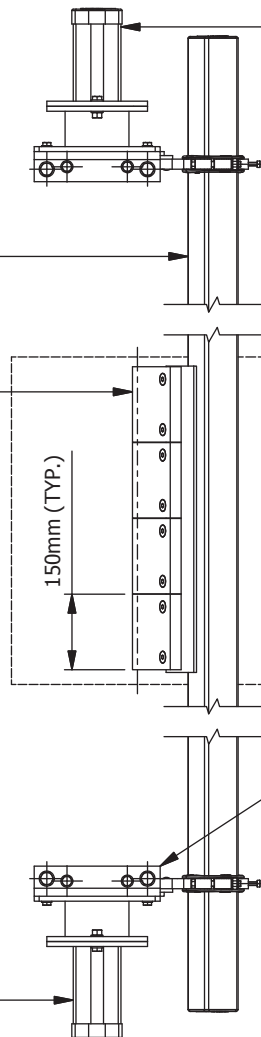
E601 SINGLE ROW MULTI-BLADE PRE-PRIMARY SCRAPER

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TWIST UNIT TO MAINTAIN CONSTANT
PRESSURE AGAINST THE MATERIAL FLOW & DEFLECT
AWAY FROM ANY OBSTRUCTION

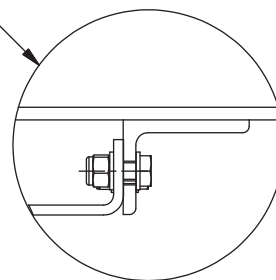
HARD WEARING CERAMIC
OR STEEL BLADES

SAND BLASTED &
EPOXY POWDER COATED
CARRIER SHAFT

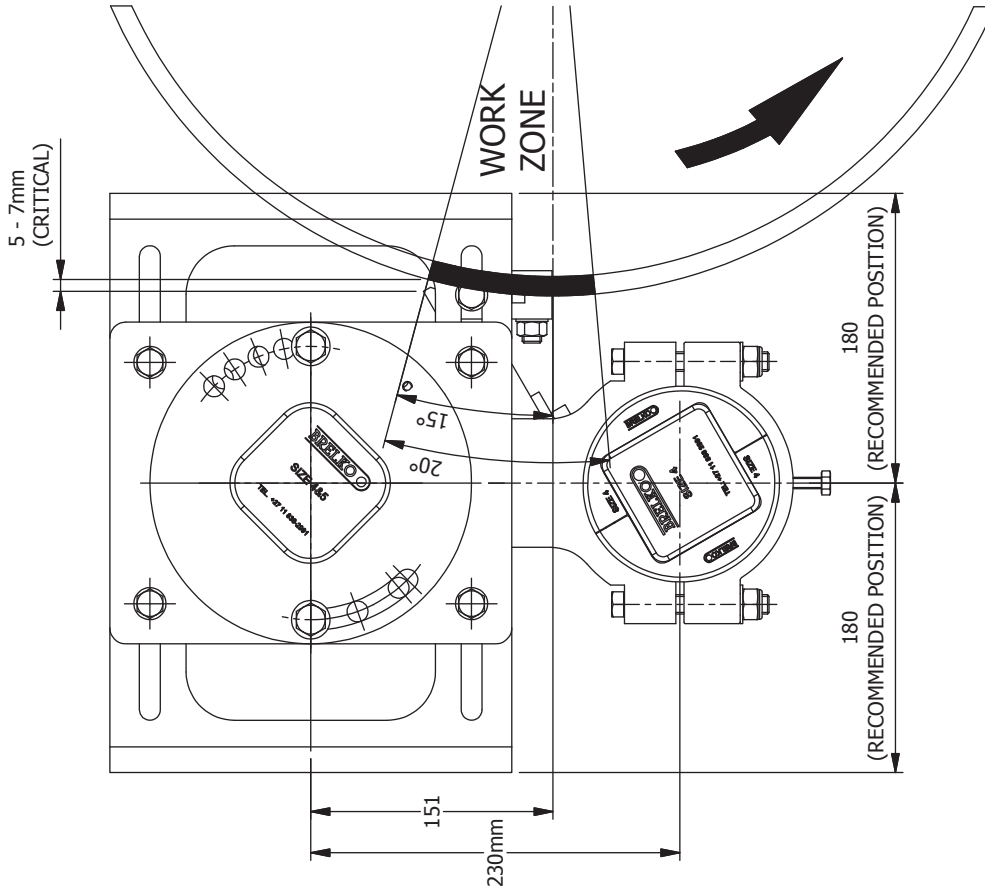


MOUNT DIRECTLY ONTO CHUTE OR
BOLTED TO STRUCTURE

POWDER COATED
MOUNTING COMPONENTS



**STANDARD CONSTRUCTION & FINISHES FOR BELT WIDTHS FROM
900mm TO 2400mm**



E601-TT
TWIST TENSIONER MOUNTING

NOTE: FEATURES & OPTIONS SHOWN:
PLEASE REFER TO DETAILED MANUAL FOR INSTALLATION INSTRUCTIONS, MAINTENANCE & SPARE PARTS

DRW. E601-001
No.

REV. B

5. Handling

5.1. Receiving the goods

Check that the shipment contains all the products specified in the delivery note. If the goods do not match the delivery note, if the goods show any transportation damage, **list it on the freight bill**. Describe the damage and the number of wrong or faulty goods, **and contact your supplier immediately**.

Do not use defective parts under any circumstances. Claims must be made within 8 days from the arrival of goods. The factory does not cover expenses caused by exchange of product when installation was not carried out according to factory instructions.

5.2. Work Safety

Always use protective gloves and clothing. Always use a lifeline and soft-sole footwear when work will be carried out on raised platforms. Before you move a scraper or plough, check that it is securely attached to the lifting equipment. Always observe local safety regulations.



Before removing/installing equipment, lock out/tag out energy source to conveyor, and/or conveyor accessories.

Turn off and lock out/tag out energy source according to local standards.



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

If using a cutting torch or welding machine, test atmosphere for gas level or dust content.

5.3. Handling

When scrapers are unloaded from the transportation vehicle onto customer's platform, place them on boards spaced max 1m apart at a minimum of 5cm from the ground.

5.4. Storage

Scrapers can be stored unpacked or in transportation package. Scrapers must not be stored on top of one another, protect the scrapers by storing them in a cool dry area on a flat surface.

5.5. Preparations for installing Belt Scrapers

Before installation, check all measurements and any of the other geometric design

5.6. Recommended Tools List

BELT SCRAPERS	
QTY	DESCRIPTION
2	EXTENSION CORD (20m MINIMUM)
1	PORT-A-PACK (OXY-ACETYLENE)
1	PRICKER
1	COMBINATION GAUGE (WITH SPIRIT LEVEL)
1	STRAIGHT EDGE (1M MINIMUM)
1	90° SET SQUARE
1	5M TAPE MEASURE
2	ADJUSTABLE SPANNERS
1	PIPE WRENCH (3" MINIMUM)
1	SOCKET RATCHET SET (6mm - 30mm)
2	RINGSET SPANNERS - M13, 15, 16, 17, 18, 19, 24
1	STANLEY KNIFE
2	M46 SET SPANNERS
2	M65 SET SPANNERS
1	HARD FACE HAMMER – 4pd
1	SOFT FACE HAMMER - 1KG
3M	NYLON ROPE
2	"G" CLAMPS - 6" - 8"
1	JIMMY LEVER

6. Maintenance

Brelko belt scrapers are designed to operate with minimum maintenance. However, to maintain superior performance some service is required. When the scraper is installed a regular maintenance program should be set up. This program will ensure that the scraper operates at optimal efficiency and problems can be identified and fixed before the scraper stops working. All safety procedures for inspection of equipment (stationary or operating) must be observed. The E601 Pre-Primary Head Pulley Scraper operates at the discharge end of the conveyor and is in direct contact with the moving belt. Only visual observations can be made while the belt is running. Service tasks can be done only with the conveyor stopped and by observing the correct lockout/tag-out procedures.

6.1. New Installation

After the new scraper has run for a few days a visual inspection should be made to ensure the scraper is performing properly. Make adjustments as needed.

6.2. Routine Visual Inspection (every 2~4 weeks)

- A visual inspection of the scraper and belt can determine:
- If the mounts are adjusted at the correct pressure for optimal cleaning
- If the belt looks clean or if there are areas that are dirty
- If the blade is worn out and needs to be replaced
- If there is damage to the blade or other scraper components
- If fugitive material is built up on the scraper or in the transfer area
- If there is cover damage to the belt
- If there is vibration or bouncing of the scraper on the belt
- If a snub pulley is used, a check should be made for material build-up on the pulley
- If any of the above conditions exist, a decision should be made on when the conveyor can be stopped for scraper maintenance.

6.3. Routine Physical Inspection (every 6~8 weeks)

When the conveyor is not in operation and properly locked and tagged out a physical inspection of the scraper to perform the following tasks:

- Clean material build-up off of the scraper blade and pole.
- Closely inspect the blade for wear and any damage. Replace if needed.
- Check blade for proper installation and condition. Replace if needed.
- Ensure full blade to belt contact.
- Inspect the scraper pole for damage.
- Inspect all fasteners for tightness and wear. Tighten or replace as needed.
- Replace any worn or damaged components.
- Check the pressure of the scraper blade on the belt. Adjust the pressure if necessary, refer to scraper model installation guide.

When maintenance tasks are completed, test run the conveyor to ensure the scraper is performing properly.

PARTS LIST - REF. DRW. No.: E601-012

ITEM No.	DESCRIPTION	SIZE	BELT WIDTH (mm)	CODE
A.	Carrier Assembly	Size 4	900-1200	2/8.6.1
		Size 5	1350-1800	2/8.6.2
		Size 5	2100-2400	2/8.61/3P
B.	Torsion Twist Tensioner and Mount Assembly including bearing, bushes, mounting brackets and Tensioner units. (All Belt Widths require 2 Twist Tensioner Units)	Size 4	900-2400	2/2.37
C.	Blades			
	Ceramic Blade	150mm	N/A	2/7.9
	Steel Blade – VRN400	150mm	N/A	2/7.9.0

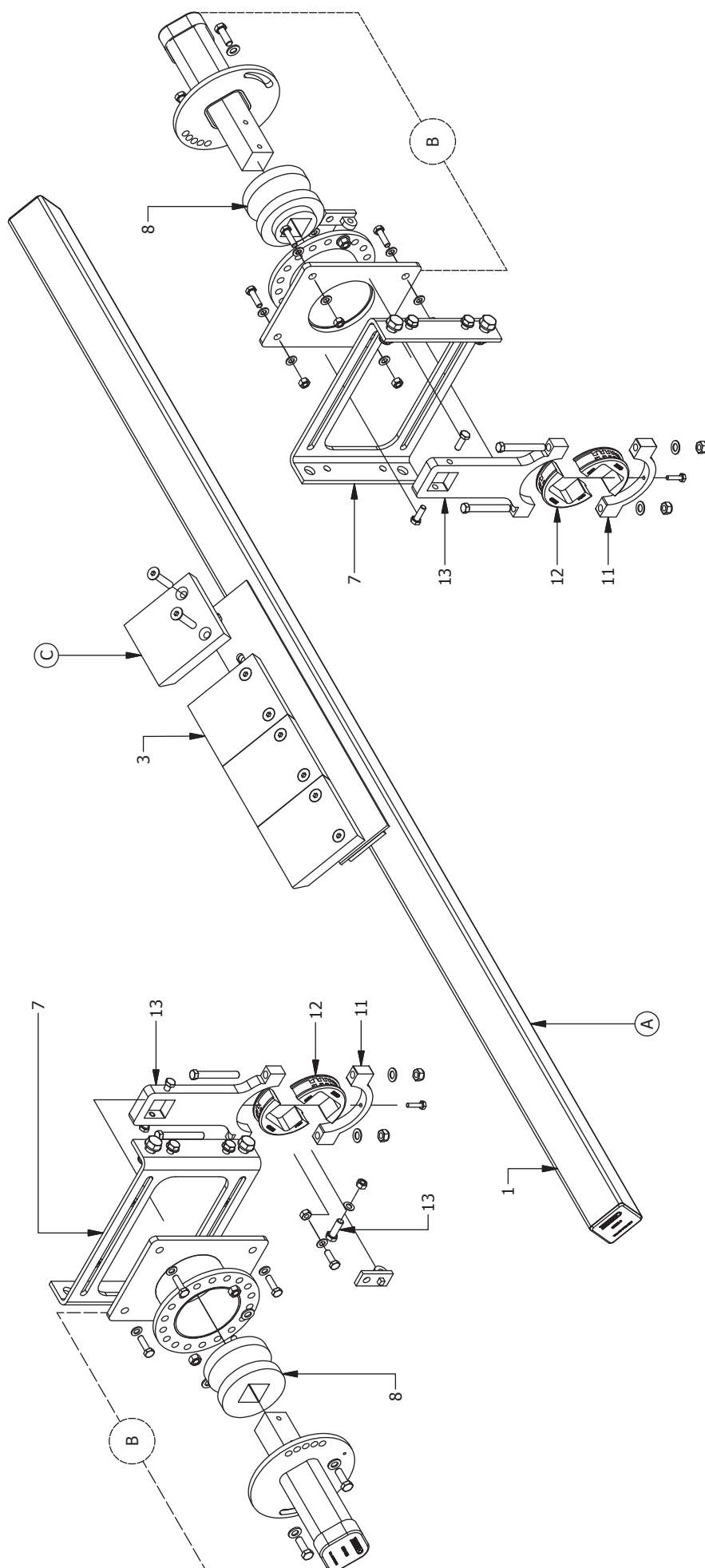
NOTE! Always quote belt width.

ASSEMBLY INSTRUCTIONS

1. All scrapers will be wrapped and clearly marked with the model number, scraper blade grade and belt width.
2. Note: - Scrapers will be supplied with all nuts and bolts to complete the assembly and installation.
3. Referring to the parts list, and installation data sheet check that the correct parts and quantities have been supplied for the model and belt width of scraper ordered.
4. Normally scrapers are supplied with blades (3) assembled and fixed to the carrier shaft. If this is not the case, assemble these components as shown.
5. Note: - Caution should be taken not to over tighten ceramic blade (3) screws, as the ceramic parts are brittle.
6. Check that the edges of the blades are in line and level. This is done by means of a straight edge or by resting the assembly with the blade edges on a level work bench. If any blades are not level, slightly slacken blade nuts and using a rubber or wooden mallet gently tap the blades (3) into line. Tighten the blade nuts firmly.
 - Note:- Caution should be taken not to over tighten ceramic blade (3) screws, as the ceramic parts are brittle.
7. Proceed with the installation as per the installation guide.

E601-TT TWIST TENSIONER MOUNT SINGLE ROW MULTI-BLADE PRE-PRIMARY SCRAPER

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LEGEND

DESCRIPTION	COMPONENT I.D
CARRIER ASSEMBLY (SHAFT, BACKING PLATE, NUTS, WASHERS & BOLTS)	A
TORSION TWIST TENSIONER & MOUNT ASSEMBLY	B
BLADES (SPECIFY TYPE)	C

PARTS LIST: FOR TWIST TENSIONER MOUNT

PLEASE SPECIFY BELT WIDTH WHEN ORDERING

DRW. E601-012
No.

REV. B

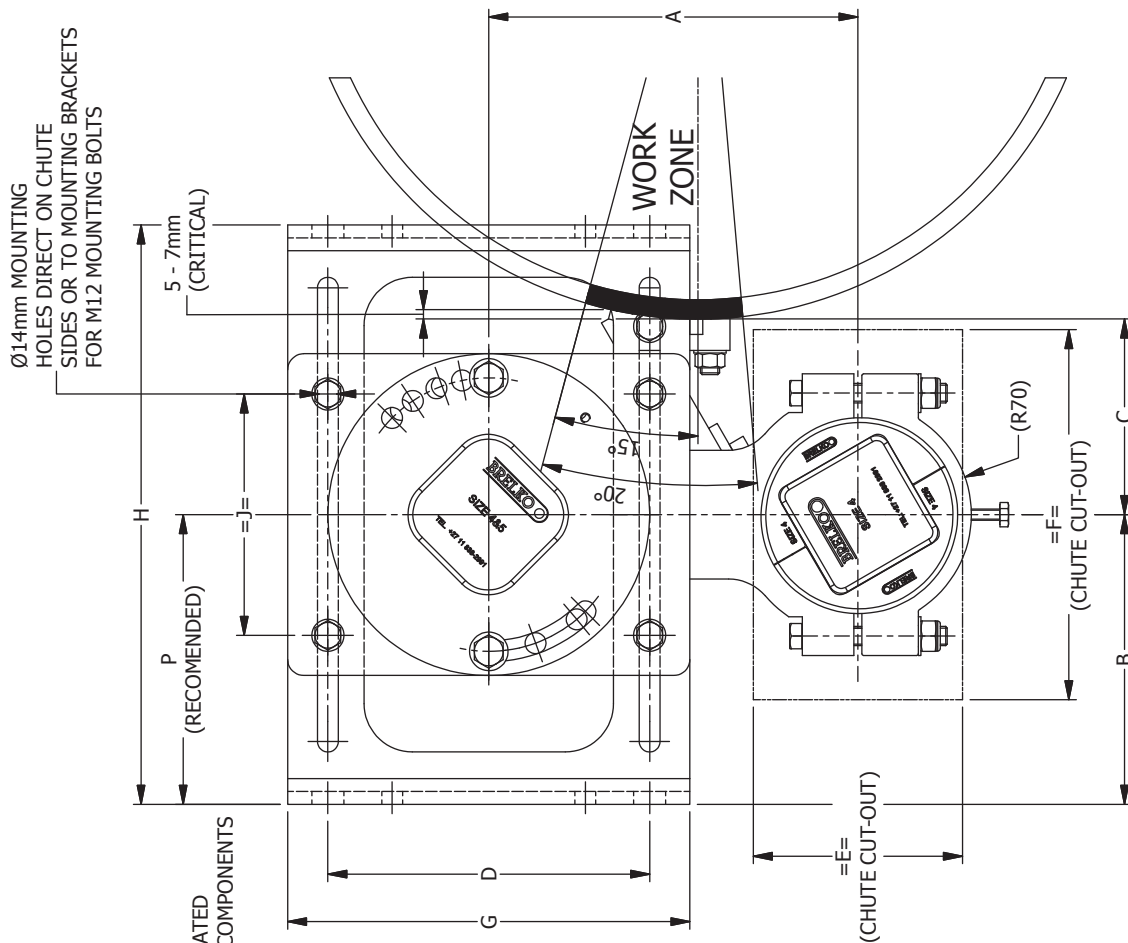
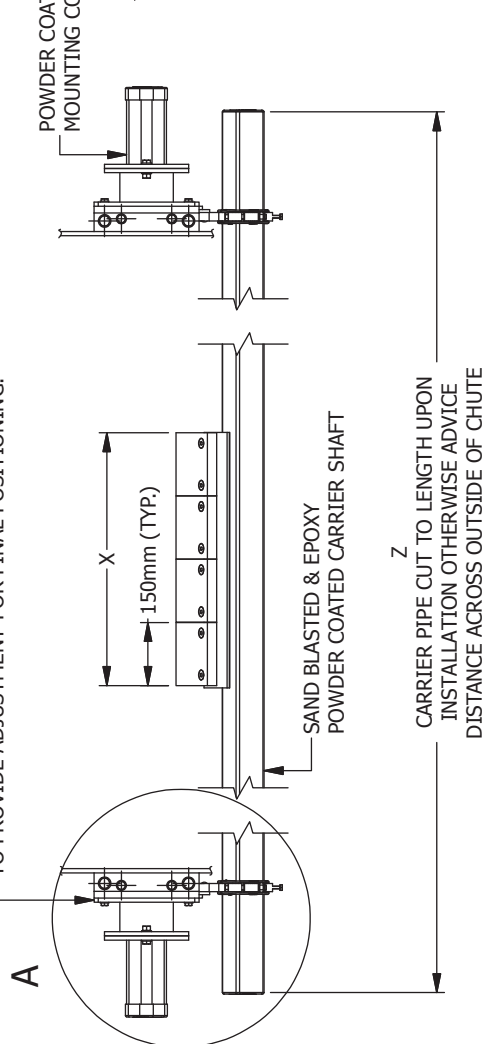
INSTALLATION GUIDE - REF. DRW. No.: E601-013

1. Refer to the Assembly Instructions, Parts List and DRW. No.: E601-TT-012 to confirm that all the necessary parts have been supplied and that the scraper is correctly assembled.
2. Remove mounting brackets (7) , carrier support arms (13) , clamp pieces (11) and green nylon bushes (12) from the near and farside (8) bearing assemblies.
3. Referring to the installation data sheet and dimensions given in the dimension table determine the scraper work zone and select the optimum position for the scraper.
4. After establishing the optimum position for the scraper on the head pulley, mark and cut out the near and farside chute openings.
 - Note: - Shield the conveyor belt and head pulley to prevent burning during cutting and welding activities.
5. With reference to the installation data sheet select the most convenient location for the mounting brackets (7).
 - Note: - Mounting brackets (7) can be welded or bolted to the chute sides.
6. Tack weld the near and farside mounting brackets (7) to the chute sides or bolt to structure.
7. Position the near and farside bearing assemblies (8) on the mounting brackets (7) as shown, tighten finger tight only, as further adjustment will be required.
8. Remove one or both carrier shaft (1) end caps and install the carrier shaft through the near or farside access opening.
9. Position carrier shaft (1) centrally with reference to belt edges and head pulley and attach the carrier support arms (13) to the near and farside bearing assemblies (8) and attach the clamp pieces (11) and nylon bushes (12) on the carrier shaft (1) as shown and fit bolts, washers and nuts. Finger tighten only as it may be necessary to adjust the location of the near and farside bearing assemblies on the mounting brackets so that the blades are clear of the belt surface.
10. Complete welding of near and farside mounting brackets or ensure all mounting bracket nuts and bolts are firmly fastened.
11. Remove holding bolts from the near and farside bearing assemblies (8) and using large tool, turn the tension unit to rotate the scraper away from the head pulley. The scraper only needs to be rotated until the first set of holding bolt holes between the near and farside bearing assemblies align.
12. Insert holding bolts into matching holes on the near and farside bearing assemblies(8), ensure that the near and farside holding bolts are firmly fastened.
13. By means of an angle finder and using large tool rotate the carrier shaft (1) so that the blades (3) are inclined at 35 degrees into the direction of belt travel, firmly tighten nuts and bolts.
14. Adjust the near and farside set screws (14) until they touch the carrier support arms. Pre-tension the near and farside tension units (8) by tightening the near and farside set screws four full turns. Firmly tighten near and farside set screw lock nuts.
15. By means of the near and farside bearing assemblies (8) adjust the scraper towards the belt surface.
 - Note: - This step must be done carefully to ensure that the gap between the belt and blades remains the same.
16. The blades should not contact the belt. There should be approximately a 5 to 7 mm gap between the blades (3) and belt surface.
17. Tighten all bolts and nuts, do not over tighten.
18. Start the conveyor and check that the blades are not touching the belt surface, if the blades are in contact with belt surface stop the conveyor and slacken the near and farside bearing assembly bolts and adjust the scraper until all blades are clear of the belt surface.
 - Note: - This step must be done carefully to ensure that the gap between the belt and blades remains the same (5 to 7mm).
19. Tighten near and farside bearing assembly (8) bolts and nuts.

E601 SINGLE ROW MULTI-BLADE PRE-PRIMARY SCRAPER

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BRACKETS TO BE WELDED TO CHUTE SIDES OR BOLTED TO STRUCTURE
NOTE: THESE MOUNTING BRACKETS CAN BE OMITTED, BUT ARE REQUIRED
WHEN THERE ARE NO CHUTE SIDES AVAILABLE THEY ARE ALSO USED
AS AN ACCESS OPENING FOR INSTALLING AND REMOVING THE SCRAPER AND
TO PROVIDE ADJUSTMENT FOR FINAL POSITIONING.



E601-TT
TWIST TENSIONER MOUNTING

DIMENSION TABLE (mm)												
BELT WIDTH	900	1050	1200	1350	1500	1650	1800	2100				
No. BLADES	4	5	6	7	8	9	10	11				
SIZE RANGE	4			5					5			
A	230											
B	180											
C	122											
D	200											
E	130											
F	230											
G	250											
H	360											
J	150											
K	310											
L	250											
M	60											
N	35											
P	180											
X	2500			3000				4001 (3 PIECE)				

INSTALLATION DETAIL: FOR TWIST TENSIONER MOUNT.

ALWAYS SPECIFY BELT WIDTH WHEN ORDERING

DRW. E601-013
No.

REV. B

7. Procedure for Replacing/Repairing Scrapers

Repair/replace Belt Scraper components when, general maintenance tasks are preformed scraper damage due to accelerated blade wear, scraper damage due to blocked chutes, clip joints/emergency belt repairs etc.

- 7.1. Request permit to work from an authorised person, who will isolate and lock out the belt.
- 7.2. Open access door, if provided, and clear loose items about the spindle before commencing with work.
- 7.3. Loosen the locknuts and then lower/raise the scrapers, as necessary.
- 7.4. If replacing scrapers, insert balance pipe – which must be longer than the carrier shaft – into the one end of the shaft.
- 7.5. Loosen the shaft and turn it 180 degrees, that is, scraper tips pointing downward.
- 7.6. Remove one spindle on the intended exit end.
- 7.7. Slide out the scraper assembly from the intended exit end of the pipe.
- 7.8. Service the scraper on the platform.
- 7.9. Blade replacement:

Refer to Brelko installation instructions for belt scraper model in use.

Brelko nylon torsion holders have been designed to break out of the torsion holder support v-track to protect the scraper, scraper mounting components, conveyor belt and conveyor belt equipment against damage due to emergency clip joints, loose/damaged splicing, belt protrusions, chute blockages etc. If torsion holders damaged occur follow the steps below to replace individual or all of the torsion holders:

- a. Remove and clean the damaged scraper to assess the amount of damage to the scraper, the scraper torsion holders and scraper components.
 - b. If the scraper has been working for more than 4 weeks and/or there has been significant blade wear remove and replace all the torsion holders and blades and replace with new kits, this will eliminate belt damage due to uneven scraper torsion holder and blades.
 - c. If the scraper has been working for 1~2 weeks replace only damaged torsion holders and blades, however assess the damage and ensure the remaining torsion holders will not cause any damage to the conveyor belt.
- 7.10. Scraper Adjustment:
- Refer to Brelko installation instructions for belt scraper model in use.**
- a. Reposition using the balance pipe.
 - b. Obtain sanction for test, or permission to adjust for performance evaluation.
 - c. Tighten all nuts and ensure that belt cleaning or scraper performance is acceptable.
 - d. Clear up any loose items which resulted from your work.

Nº: 25853

1

CODE:

CONTACT TEL:

DATE IN:

JOB CARD
SERVICE WAYBILL

[illegible][illegible]

CUSTOMER REPRESENTATIVE:

(please print)

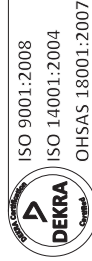
TIME IN:

CUSTOMERS SIGNATURE: _____

TIME OUT:

BRELKO REPRESENTATIVE :

SAFETY:



DOC NO.	ISSUE NO	REVISION	NOVEMBER	PAGE
ES 007	A	A	2011	1 of 2

CONVEYOR BELT & EQUIPMENT CHECK LIST

CUSTOMER DETAILS

Customer Name:		Contact Number:	
Attention:		Date of Inspection	
Inspected By		Brelko Representative	

CONVEYOR DIMENSIONS

Belt Number:		Material Carried:		Belt Speed:	
Belt Length:		Belt Width :		Troughing Angle:	
Top Cover Condition:			Bottom Cover Condition:		
Splice:	Yes	No	Clip Joint:	Yes	No
Conveyor Running	Yes	No	Inspection Tags:	Yes	No
Edge Damage:	Yes	No			
Comments:					

HEAD END / HEAD CHUTE

Chute Condition:		Head Pulley Lagging:	
Snub Pulley Lagging:		Build up:	
Belt Movement:			
Comments:			

IDLER CHECK

Trough Idler Condition:		Return Idler Condition:	
Troughing Frame Condition:		Return Frame Condition:	
Comments:			

PRIMARY SCRAPER

Position Correct:	Yes	No	Type of Primary Scraper installed:				
(Contact of Scraper Blade must be between 10 to 30 degrees, under the pulley horizontal line.)							
Mounts firmly mounted:	Yes	No	All bolts, nuts tightened:	Yes	No		
Adequate Tensioning:	Yes	No	All Caps, Denso Tape in place:	Yes	No		
Housekeeping:							
Chute Material build up:							
Blade Wear:	Low	Medium	High	Cleaning:	Poor	Fair	Good
Comments:							

SECONDARY SCRAPER #1

Type / Model of Secondary Scraper Installed:							
Positioning Correct:							
(Scraper blade must preferably be a minimum 100mm from pulley tangent.)							
All Caps, Denso Tape in Place:	Yes	No	Mounts firmly mounted:	Yes	No		
All Bolts & Nuts Tightened:	Yes	No	Adequate tension/adjustment:	Yes	No		
Angle Correct Set:	Yes	No	Carrier Frame cut to size	Yes	No		
Angle of scraper must be 90 degrees to the conveyor belt, dependant on conditions.							
Chute / Material build up:	Yes	No	Housekeeping:				
Blade wear:	Low	Medium	High	Cleaning:	Poor	Fair	Good
Comments:							

SECONDARY SCRAPER #2

Type / Model of Secondary Scraper Installed:											
Positioning Correct:											
Scraper blade must preferably be a minimum 100mm from pulley tangent.											
All Caps, Denso Tape in Place:	Yes		No		Mounts firmly mounted:	Yes		No			
All Bolts & Nuts Tightened:	Yes		No		Adequate tension/adjustment:	Yes		No			
Angle Correct Set:	Yes		No		Carrier Frame cut to size	Yes		No			
Angle of scraper must be 90 degrees to the conveyor belt, dependant on conditions.											
Chute / Material build up:	Yes		No		Housekeeping:						
Blade wear:	Low		Medium		High	Cleaning:	Poor		Fair		Good
Comments:											

TAKE UP PULLEYS / COUNTERWEIGHT / PLOUGH

Type / Model of Plough Installed:											
Are Flat Return Idlers Installed:	(In front)	Yes		No		(Behind)	Yes		No		
Any excessive belt movement:	Yes		No		Adequate space for material to fall off of conveyor belt	Yes		No			
Is the Plough firmly mounted:	Yes		No		Is the Safety Chain firmly mounted and correctly adjusted:	Yes		No			
Is the Plough Free moving:	Yes		No		Is the entire Blade / Nose Piece in contact with the conveyor belt:	Yes		No			
Housekeeping:											
Comments:											

CONVEYOR BELT TRACKING / ALIGNMENT

Is the Belt Tracking centre:	Yes		No		Are there any Tracking Systems installed:	Troughing		Return	
Is there any visible damage to structure caused by poor belt tracking:	Yes		No		No				
Conveyor belt length:					Are the tracking systems correctly positioned:	Yes		No	
Are the tracking systems firmly mounted:	Yes		No		Are all bolts & nuts tightened:	Yes		No	
Are all Idlers in contact with the Belt - Adequate Tension on the system:	Yes		No		Housekeeping:				
Comments:									

LOADING / TRANSFER CHUTE

Chute Condition:	Poor		Fair		Good		Material loading in centre of conveyor belt:	
Dead Boxes:	Yes		No		Deflector Plates:	Yes	No	Drop Heights:
Tail Pulley Condition	Good		Fair		Poor			
Comments:								

KEYSKIRTING®

Size of Keyskirt®:	1		2		3		4		Length of Keyskirt® Installed :	
Positioning of Keyskirt® :								Other Product used as Skirting	Yes	No
Mounting Arrangement	Std.						Offset	Other		
All bolts & nuts securely fastened:	Yes		No		Housekeeping:					
Comments:										

FEEDBOOTS

Type of Feedboot installed:	Universal		Combination		Is the system correctly positioned:	Yes		No	
					(System to be positioned centrally to the load area.)				
Drop Height:					Is the system securely mounted:	Yes		No	
All Bolts & Nuts tightened:	Yes		No		Condition of Idlers:	Poor		Fair	Good
Lead in and lead out Idlers in place:	Yes		No		Condition of UHMW Liners:	Low		Medium	High
Housekeeping:									
Comments:									

HI - IMPACT SYSTEM

Type of Hi - Impact system installed :									
Is the system correctly positioned:	Yes		No		Drop heights:				
System to be positioned centrally to the load area.									
Is the system securely mounted:	Yes		No		All bolts & nuts tightened:	Yes		No	
Are all Idlers in contact with the belt:	Yes		No		Idler condition:	Poor		Fair	Good
BTA Condition:	Poor		Fair	Good	Are chains / D shackles in place & securely fastened:	Yes		No	
All Hardware in Good Condition:	Yes		No		Housekeeping:				
Comments:									

AIR CANNONS

Size of Air Cannon Installed:	5ltr		Quantity		10ltr		Quantity	
	25ltr		Quantity		50ltr		Quantity	
	100ltr		Quantity		200ltr		Quantity	
Is the Air Cannon securely fastened onto the structure:	Yes		No		Is an Air Lance installed:	Yes		No
Size of the Air Lance:					Are the Air Cannons correctly positioned:	Yes		No
Power supply:					Air supply:			
Operating system:	Single timer		PLC		Manual push button		Sequential	
All Bolts & Nuts securely tightened:	Yes		No		All components in good order:	Yes		No
Distance between Air Cannon & Solenoid Valve:					Any Air Leaks in the Pipe Work:	No		
Is a Water Trap Installed:	Yes		No		Is a Lubricator installed:	Yes		No
Distance from Air Cannon:					Distance from Air Cannon:			
Are the safety / warning signs in place and visible:	Yes		No		Housekeeping:			
Comments:								

TAIL PULLEY / PLOUGH

Type / Model of Plough Installed:									
Are Flat Return Idlers installed:	(In front)	Yes		No		(Behind)	Yes		No
Any excessive belt movement:	Yes		No		Adequate space for material to fall off of conveyor belt:	Yes		No	
Is the Plough firmly mounted:	Yes		No		Is the Safety Chain firmly mounted and correctly adjusted:	Yes		No	
Is the Plough free moving:	Yes		No		Is the entire Blade / Nose Piece in contact with the conveyor belt:	Yes		No	
Housekeeping:									
Comments:									

10. Trouble Shooting

Problem	Possible Cause	Possible Solution
Poor cleaning performance	Scraper under-tensioned	Adjust to correct pressure - refer installation instructions
	Scraper over-tensioned	Adjust to correct pressure - refer installation instruction
	Scraper installed in wrong location	Verify dimension - refer installation drawing
	Scraper blade worn or damaged	Replace scraper blade
Rapid Blade Wear	Tension on scraper too high/low	Adjust to correct tension - refer installation instruction
	Scraper not located correctly	Check scraper location for correct dimensions
	Blade attack angle incorrect	Check scraper location for correct dimensions
	Material too abrasive for blade	Option: switch to alternate scraper tip grade (contact Brelko for available options)
	Mechanical splice damaging blade	Repair, skive or replace splice
Centre wear on blade (smile effect)	Blade smaller than material path	Add additional blade to match material path
	Tension on scraper too high/low	Adjust to correct pressure - refer installation instruction
Unusual wear or damage to blade	Mechanical splice damaging blade	Repair, skive or replace splice
	Belt damaged or ripped	Repair or replace belt
	Scraper not correctly located	Verify dimension - refer installation drawing
	Damage to pulley or pulley lagging	Repair or replace pulley
Vibration or noise	Scraper not located correctly	Verify dimension - refer installation drawing
	Blade attack angle incorrect	Verify dimension - refer installation drawing
	Scraper running on empty belt	Use a spray pole when the belt is empty
	Scraper tension too high/low	Adjust to correct tension or slight adjust to diminish
	Scraper locking bolts not secure	Check and tighten all bolts and nuts
	Scraper not square to head pulley	Verify dimension - refer installation drawing
	Material build-up in chute	Clean up build-up on scraper and in chute
Scraper being pushed away from pulley	Scraper tension not set correctly	Ensure correct tension/increase tension slightly
	Sticky material is overburdening scraper	Increase tension; add primary (head pulley) scraper
	Scraper not set up correctly	Confirm location dimensions are equal on both sides