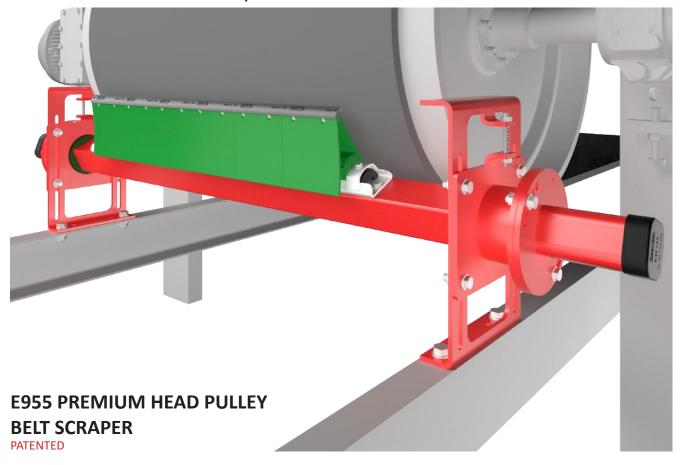


INSTALLATION, OPERATING & MAINTENANCE MANUAL



Project Name : . .

Project Number : . .

Order Number : . .

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.

All technical and dimensional information subject to change. All general Terms and Conditions of sale, including limitations of our liability, apply to all products and services sold.

E955 - Page 224 to 243



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Disclaimer

Brelko conveyor products (pty) Itd 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.

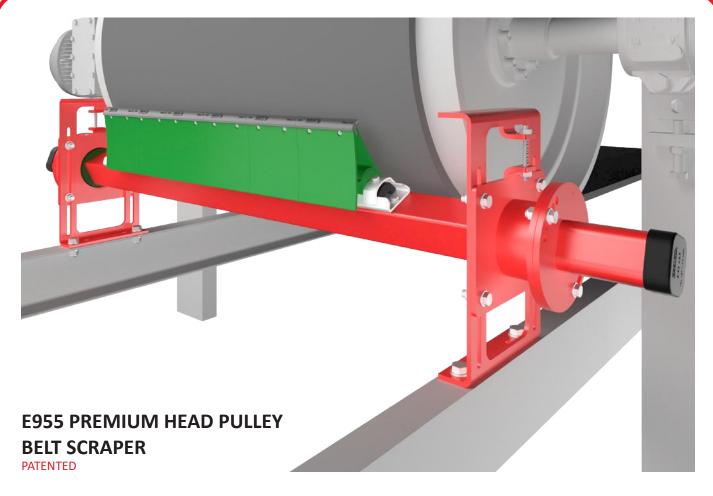
Note:

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 operate 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 when the conveyor is stopped and by observing the correct lockout/tag-out procedures.





APPLICATIONS

- As a Heavy Duty Head Pulley Scraper, working directly on the head pulley.
- As a Head Pulley Scraper, when wet and sticky materials are conveyed.
- Can be installed where there is not enough space for other scrapers.
- Suitable for all types of conveyor belts with vulcanized joints.

FEATURES

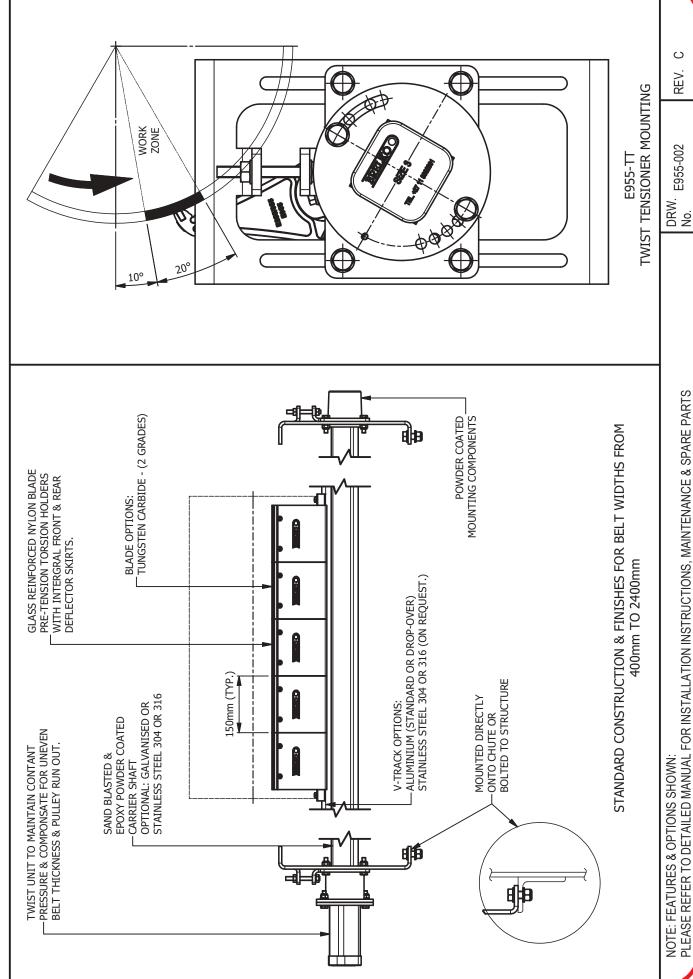
- Adjustable Brelko torsion twist tensioners allow the scraper to maintain a constant pressure on the belt, are self
 adjusting and allow the scraper to deflect away from any obstruction, as a significant safety feature.
- Pre-tensioned blades restrict forward movement and reduces belt contact pressure for optimised cleaning, and extends belt life.
- Patented V-base torsion holder makes blade changing quick and simple.
- Slide over blade mounting makes blade changing simple.
- Multi-blade construction allows individual blades to deflect for minor obstructions and adapt to belt profile.
- Streamlined scraper construction prevents material build-up on the scraper.



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E955-TT TWIST TENSIONER MOUNT SINGLE ROW MULTI-BLADE HEAD PULLEY SCRAPER

◎ 08-2016





5. Handling

5.1. Receiving the goods

Check that the shipment contains all the items specified on the delivery note. If this does not match the delivery note or if the items show any transportation damage, **list it on the freight bill.** Describe the damage and the number of incorrect or faulty items and **contact your supplier immediately**.

Defective parts should not be used under any circumstances. Claims must be made within 8 days from the arrival of goods. Brelko do not cover claims or exchange of product if installation was not carried out according to installation 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 E955 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.: E955-003

| ITEM No. | DESCRIPTION | SIZE | SHAFT LENGTH (mm) | BELT WIDTH (mm) | PART No. |
|----------|---|--------|-------------------------|--------------------|-------------|
| | | | | | |
| A. | Carrier Assembly Including shaft, "V" track and | Size 1 | 1200 | 400-500 | 2-8.1.1 |
| | end stops. | Size 2 | 1500 | 600-750 | 2-8.1.2 |
| | | Size 3 | 2000 | 900-1200 | 2-8.1.3 |
| | | Size 4 | 2500 | 1350-1500 | 2-8.1.4 |
| | | Size 4 | 3000 | 1650-1800 | 2-8.1.41 |
| В. | Torsion twist Tensioner and mount assembly | Size 2 | N/A | 400-750 | 2-2.33 |
| | including bearing, bushes, mounting brackets and | Size 3 | N/A | 900-1200 | 2-2.34 |
| | tensioner units | Size 4 | N/A | 1350-2400 | 2-2.36 |
| | (Belt Widths 1500 to 2400 require 2 Twist Tensioner Units) | | | | |
| D. | Optional / 3-Piece Shaft Assembly including inner | Size 1 | 1200 | 400-500 | 2-8.1.1-3P |
| | carrier shaft, outer carrier shafts. | Size 2 | 1500 | 600-750 | 2-8.1.2-3P |
| | | Size 3 | 2000 | 900-1200 | 2-8.1.3-3P |
| | | Size 4 | 2500 | 1350-1500 | 2-8.1.4-3P |
| | | Size 4 | 3000 | 1650-1800 | 2-8.1.41-3P |
| | | Size 5 | 4000 | 2100-2400 | 2-8.1.5-3P |
| н. | Torsion Holder Assembly c/w :- | | | | |
| | Triplex Tungsten blade (4mm) -T3 | 150mm | N/A | N/A | 2-6.33 |
| J. | Torsion Holder | 150mm | N/A | N/A | 2-5.50 |
| к. | Blade Holder c/w :- | | | | |
| | Triplex Tungsten blade (4mm) -T3 | 150mm | N/A | N/A | 2-6.31 |

NOTE! Always quote belt width.

ASSEMBLY INSTRUCTIONS

- 1. All scrapers will be wrappedv v and clearly marked with the model number, scraper blade grade and belt width.
 - Note: Scrapers will be supplied with all nuts and bolts to complete the assembly and installation.
- 2. 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.
- 3. Normally scrapers are supplied with blades (3), torsion holders (4) and end stops (5) assembled on the carrier shaft (1). If not, assemble as shown using a lithium base grease as a lubricant to ease future removal of blades. If necessary, use a rubber mallet to tap the blades into the "V" track. Do not over-tighten end stop (5) set screws.
- 4. Check that the blades (3) are free to deflect forwards and backwards. If any blades foul those adjacent, slightly slacken end stop (5) set screws, and tap the torsion holders (4) sideways until the blades (3) clear each other. Tighten end stop (5) set screws.
 - Note: There should be 0,5mm gap between blades (3).
- 5. Proceed with installation as per installation guide.

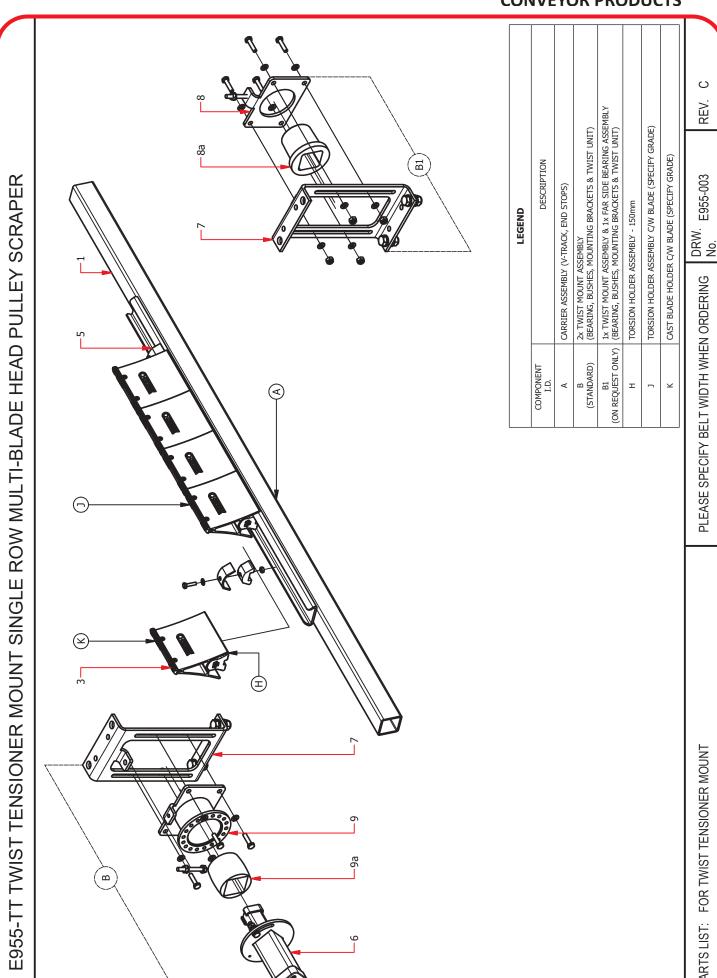


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PLEASE SPECIFY BELT WIDTH WHEN ORDERING

PARTS LIST: FOR TWIST TENSIONER MOUNT





INSTALLATION GUIDE - REF. DRW. No.: E955-004

- 1. Refer to the Assembly Instructions, Parts List and Parts list drawing to confirm that all the necessary parts have been supplied and that the scraper is correctly assembled.
- 2. Remove mounting brackets (7) from nearside bearing assembly (9) and farside bearing assembly (8).
- 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. The farside opening need only accommodate scraper adjustment.
 - Note 1: Shield the conveyor belt and head pulley to prevent burning during cutting and welding activities.
 - Note 2: The mounting brackets (7) may be omitted and the bearing plates bolted directly to the chute sides. Separate chute access doors may then be required for inspection and maintenance access. Please consult a Brelko representative for this installation option.
- 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. Remove one or both carrier shaft (1) end caps and install scraper through nearside chute opening.
- 8. Position carrier (1) centrally with reference to belt edges and head pulley and attach the nearside bearing assembly (9) and farside bearing assembly (8) to the mounting brackets (7).
- 9. Using nearside bearing assembly (9) and farside bearing assembly (8) as reference determine exact carrier (1) length, mark off; remove carrier (1) and nearside bearing assembly (9) and farside bearing assembly (8).
- 10. Carefully cut carrier shaft (1) to required length and de-burr shaft ends, reposition carrier shaft (1) centrally with reference to belt edges and head pulley.
- 11. Fit farside bearing bush (8a) over carrier shaft (1) end, and insert carrier shaft (1) end into farside bearing assembly (8). Tighten bolts and nuts, finger tight only as further adjustment of the scraper will be required.
- 12. Fit nearside bearing bush (9a) over carrier shaft (1) end, and locate nearside bearing assembly (9) as shown. Tighten bolts and nuts, finger tight only as further adjustment of the scraper will be required.
- 13. Complete welding of near and farside mounting brackets (7) or ensure all mounting brackets (7) nuts and bolts are firmly fastened.
- 14. Locate tension unit (6) and insert holding bolt into matching holes between the nearside bearing assembly (9). Tighten holding bolt and nut, finger tight only as further adjustment of the scraper will be required.
- 15. With reference to the dimension data sheet move scraper into the correct scraping position. Tighten bolts and nuts; do not over tighten nuts and bolts as further adjustment of the scraper might be required.
- 16. Using large tool, turn tension unit to bias scraper against head pulley and insert holding bolt. The tensioner only needs to be rotated until the first set of holding bolt holes between nearside bearing assemblies (9) align.
- 17. Firmly tighten all nuts and bolts.
- 18. Start the conveyor and check if all blades are in full contact with the belt surface. If further adjustment is required stop the conveyor and adjust the scraper until the next set of holding bolt holes between nearside bearing assemblies (9) align or until optimum cleaning is achieved.

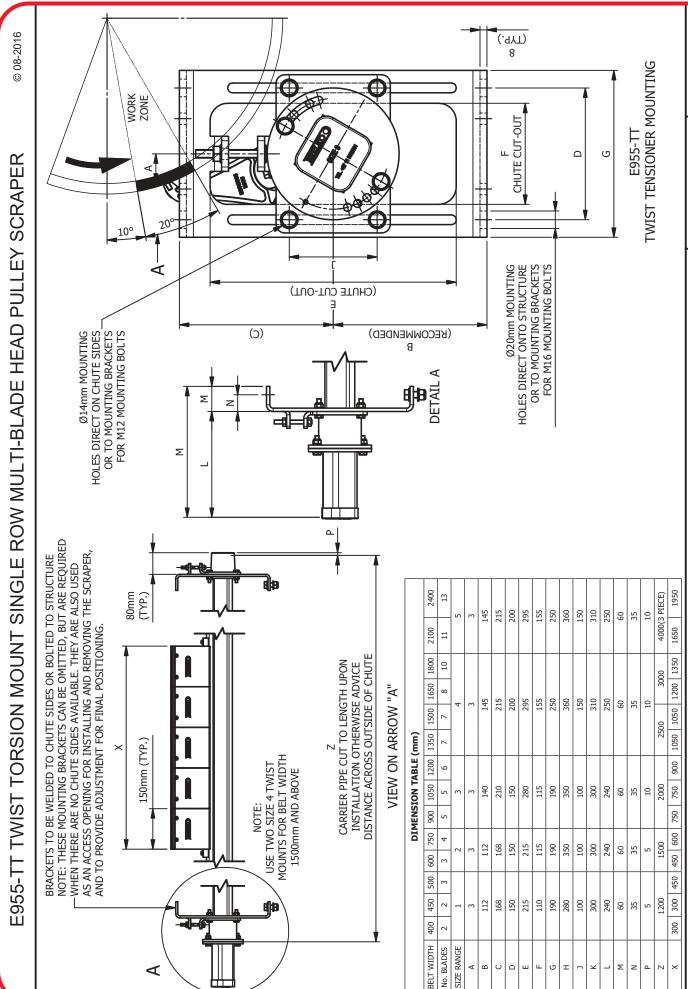


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E955-004

DRW. No.



INSTALLATION DETAIL: FOR TWIST TENSIONER MOUNT



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.



| CUSTOMER: | | | | | | | | | | |) | CODE: | <u>ш</u> | | | I | | |
|---------------------|--|-----------|--------|---|---|--|---|---|-------------------|------------------|-------------------------------------|----------------------|----------|--------------------------------|-------------------|-----------------|--|------|
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| SERVICE WAYBILL | WAYE | | | | PRODUCT | DUCT - | TOP COVER | | BUILD-UP | Mine | Mine Spares = M / Brelko Spares = B | 1 / Brelko | Spares = | | 08 % 80 | NOITA | | |
| BELT No. | BELT | EQUIPMENT | MOUNT | EQUIPMENT CONDITION (ANERAGE: GOOD! EXCELLENT) | PRODUCT LIFE REMAINING (LOW/ MEDIMM / HOH) | CLEANING (AVERAGE (GOOD / EXCELLENT) | (cres) sericeD (roose bylich) BKOLKORIONZ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | EXCESSINE (CITES) SERICED (FOOSE BALCH) | AVERAGE LITTLE | BLADES / HOLDERS | STNUOM CARRIER | SPINDLES ASSEMBLY | SKIRTING | OTHER SPARES ADJUST SCRAPER S | тіентеи сооѕе ипт | CLEANED CLEANED | ALWAYS REFER THE ABOVE COMMENTS TELEPHONICALLY TO THE RELEVANT PERSON FOR SPELLING REFER TO THE GENERAL AND CONVEYING TERMS SHEET' INCLUDED IN THE INDEX SECTION OF THIS WAYBILL BOOK. | 8 = |
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P.O. Box 62392

Marshalltown 2107

Web: www.brelko.com



CONVEYOR BELT & EQUIPMENT CHECK LIST / QCP

CUSTOMER DETAILS

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

CONVEYOR DIMENSIONS

| Belt Number: | | Mater | al Carı | ried: | | | | | Belt Sp | peed: | | | |
|----------------------|-----|--------|---------|--------|-------------|--------|----------|-----------|---------|--------------|-----|----|--|
| Belt Length: | | Belt V | /idth: | | | | | | Trough | ning Angle: | | | |
| Top Cover Condition: | | | | | | Botton | Cover Co | ondition: | | | | | |
| Splice: | Yes | No | | Clip J | oint: | Yes | | No | | Cover Strip: | Yes | No | |
| Conveyor Running | Yes | No | | Inspe | ction 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 o | f Prima | ary Scraper inst | alled: | | | |
|--|-----------------|----------|--------------|---------|------|----------|---------|------------------|--------|------|------|--|
| (Contact of Scraper Blade the pulley horizontal line.) | must be between | een 10 t | to 30 degree | s, unde | r | | | | | | | |
| Mounts firmly mounted: | Yes | | No | | | All bolt | s, nuts | tightened: | | Yes | No | |
| Adequate Tensioning: | Yes | | No | | | All Cap | s, Den | iso Tape in plac | e: | Yes | No | |
| Housekeeping: | | | | | | | | | | | | |
| Chute Material build up: | | | | | | | | | | | | |
| Blade Wear: | Low | I | Medium | | High | | | Cleaning: | Poor | Fair | Good | |
| Comments: | | | | | | | | | | | | |

SECONDARY SCRAPER #1

| Type / Model of Secondary Scrape | r Installe | ed: | | | | | | | | | |
|-----------------------------------|------------|-------|---------------|-----------|---------------|--------|------------------|-----------|------|------|--|
| Positioning Correct: | | | • | | | | | | | | |
| (Scraper blade must preferably be | a minim | um 1 | 00mm from | pulley ta | ingent.) | | | | | | |
| All Caps, Denso Tape in Place: | Yes | | | No | | Moun | ts firmly mounte | ed: | Yes | No | |
| All Bolts & Nuts Tightened: | Yes | | | No | | Adeq | uate tension/adj | justment: | Yes | No | |
| Angle Correct Set: | Yes | | | No | | Carrie | er Frame cut to | size | Yes | No | |
| Angle of scraper must be 90 degre | es to the | e con | veyor belt, d | lependa | nt on conditi | ons. | | | | | |
| Chute / Material build up: | Yes | | | No | | Hous | ekeeping: | | | | |
| Blade wear: | Low | | Medium | | High | | Cleaning: | Poor | Fair | Good | |
| Comments: | | | | | | | | | | | |



| DOC No | ISSUE No | REVISION | OCTOBER | PAGE |
|--------|----------|----------|---------|-------------|
| FS 023 | 04 | 04 | 2018 | Page 1 of 3 |





SECONDARY SCRAPER #2

| Type / Model of Secondary Scrape | r Installe | ed: | | | | | | | | | |
|------------------------------------|------------|-------|---------------|-----------|-----------------|--------|-------------------|----------|------|------|--|
| Positioning Correct: | | | | | | | | | | | |
| Scraper blade must preferably be a | minimu | ım 10 | 00mm from p | ulley tar | ngent. | | | | | | |
| All Caps, Denso Tape in Place: | Yes | | | No | | Moun | ts firmly mounted | d: | Yes | No | |
| All Bolts & Nuts Tightened: | Yes | | | No | | Adequ | uate tension/adju | ıstment: | Yes | No | |
| Angle Correct Set: | Yes | | | No | | Carrie | er Frame cut to s | ize | Yes | No | |
| Angle of scraper must be 90 degree | es to the | con | veyor belt, d | ependar | nt on condition | ns. | | | | | |
| Chute / Material build up: | Yes | | | No | | House | ekeeping: | | | | |
| 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 | t) 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 wit | h the conveyor belt: | Yes | | No | |
| Housekeeping: | | | | | | | | | | |
| Comments: | | | | | | | | | | |

CONVEYOR BELT TRACKING / ALIGNMENT

| Is the Belt Tracking centre: | Yes | | No | | Are the | re any Tra | acking Sy | stems installe | ed: | Troughing | | Return | |
|-----------------------------------|--|--------------|-----------|-------------|---------|--|-----------|------------------|----------|------------|-----|--------|--|
| Is there any visible damage to | structure | caused by | poor belt | tracking: | Yes | | | | | No | | | |
| Conveyor belt length: | | | | | | Are the tracking systems correctly positioned: | | | | Yes | | No | |
| Are the tracking systems firmly | / mounted: | mounted: Yes | | | | | Are all | bolts & nuts tiç | ghtened: | Yes | | No | |
| Are all Idlers in contact with th | he Belt - Adequate Tension on the system | | | the system: | Yes | | | No | | Housekeepi | ng: | | |
| Comments: | | | | | | | | | | | | | |

LOADING / TRANSFER CHUTE

| Chute Condition: | Poor | | Fair | Good | | Materia | al loadir | ıg in ce | entre o | f con | veyor belt: | | |
|-----------------------|------|----|------|---------------|-------|---------|-----------|----------|---------|-------|--------------|----|--|
| Dead Boxes: | Yes | | No | Deflector Pla | ites: | | Yes | | No | | Drop Heights | s: | |
| Tail Pulley Condition | n | Go | od | Fair | | Poor | | | | | | | |
| Comments: | | | | | | | | | | | | | |

KEYSKIRTING®

| Size of Keyskirt®: | 1 | | 2 | 3 | | 4 | | Leng | th of Keyskirt® Ins | stalled | 1: | | | | |
|------------------------------|-------|-----|---|-----|---|---|----|------|---------------------------|---------|----|----|-------|-------|--|
| Positioning of Keyskirt®: | | | | | | | | | r Product used kirting | Yes | | No | | State | |
| Mounting Arrangement | S | td. | | | | | | | Offset | | | | Other | | |
| All bolts & nuts securely fa | stene | ed: | | Yes | 6 | | No | | Housekeeping: | | | | | | |
| Comments: | | | | | | | | | | | | | | | |



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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 insta | lled: | | | | | | | |
|------------------------------------|---------------|---------|------|-------------------------|-----------------------|--------------|-------|------|
| Is the system correctly positione | d: | Yes | No | Drop heights: | | | | |
| System to be positioned centrall | y to the load | l area. | | | | | | |
| Is the system securely mounted | | Yes | No | All bolts & nuts tighte | ened: | | 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 shack | des in place & secure | ely fastened | : Yes | No |
| All Hardware in Good Condition: | | Yes | No | Housekeeping: | | | | |
| Comments: | | • | | • | | | | |

AIR CANNONS

| | | į | 5ltr | | | | Qua | ntity | | | 10ltr | | Quantity | | |
|--------------------------|---------------------|-------------------------------|--------|-----|----|-------------|---------|--------|-------|-----------------------|--------|-----|----------|----|--|
| Size of Air Cannon Inst | alled: | 2 | 25ltr | | | | Qua | ntity | | | 50ltr | | Quantity | | |
| | | • | 100ltr | | | | Qua | ntity | | | 200ltr | | Quantity | | |
| Is the Air Cannon secu | rely fastened onto | the structure | e: | Yes | | No | | ls an | Air L | ance installed: | | | Yes | No | |
| Size of the Air Lance: | | | | | | Are t | he Air | Cann | ons (| correctly positioned: | | | Yes | No | |
| Power supply: | | | | | | Air supply: | | | | | | | | | |
| Operating system: | Single timer | Single timer PLC | | | | Man | ual pu | sh but | ton | | | Seq | uential | | |
| All Bolts & Nuts secure | ly tightened: | , | Yes | | No | | All c | ompoi | nent | s in good order: | | | Yes | No | |
| Distance between Air C | Cannon & Solenoid | d Valve: | | | | | Any | Air Le | aks | in the Pipe Work: | | | No | | |
| Is a Water Trap Installe | ed: | , | Yes | | No | | ls a | Lubric | ator | installed: | | | Yes | No | |
| Distance from Air Cann | ion: | n: | | | | Dista | ance fr | om Aiı | r Car | nnon: | | | | | |
| Are the safety / warning | g signs in place ar | gns in place and visible: Yes | | | | | No | | Но | ousekeeping: | | | | | |
| Comments: | | | | • | • | | | | | | | | | | |

TAIL PULLEY / PLOUGH

| Type / Model of Plough Installed: | | | | | | | | | | | |
|-----------------------------------|-----------|----|-----|---|---|----------|-----|--|----|--|--|
| Are Flat Return Idlers installed: | (In front | t) | Yes | No | | (Behind) | Yes | | No | | |
| Any excessive belt movement: | Yes | | No | Adequate sp | Adequate space for material to fall off of conveyor belt: | | | | | | |
| 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 | Is the entire Blade / Nose Piece in contact with the conveyor belt: Yes | | | | | | |
| Housekeeping: | | | | | | | | | | | |
| Comments: | | | | | | | | | | | |

| Brelko Supervisor | Customer |
|-------------------|------------|
| Name: | Name: |
| Date: | Date: |
| Signature: | Signature: |



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SHIPPING WEIGHTS

Shipping Weights - kg (lb)

E955 (Complete assembled systems)

| BELT WIDTH | 400 | 450 | 500 | 600 | 750 | 900 | 1050 | 1200 | 1350 | 1500 | 1650 | 1800 | 2100 | 2400 |
|---------------|------|--------|------|------|------|------|--------|-------|-------|-------|-------|-------|-------|-------|
| SIZE RANGE | | Size 1 | | Siz | e 2 | | Size 3 | | | | Siz | e 4 | | |
| Kg | 31.4 | 31.4 | 32.6 | 34.9 | 36.1 | 44.5 | 44.7 | 46 | 66.5 | 66.8 | 72.8 | 74.1 | 98.1 | 100.5 |
| Lb | 69.2 | 69.2 | 71.9 | 76.9 | 79.6 | 98.1 | 98.5 | 101.4 | 146.6 | 147.3 | 160.5 | 163.3 | 216.3 | 221.6 |

Carrier Shaft (No Blades)

Shipping Dimensions - W x H x L (mm (in))

E955

| BELT WIDTH | 400 | 450 | 500 | 600 | 750 | 900 | 1050 | 1200 | 1350 | 1500 | 1650 | 1800 | 2100 | 2400 |
|---------------|------------------|-----|------------------|-----|-----------------|-----|------|------------------|------|------|------|------|------|------|
| SIZE RANGE | Size 1 | | Size 2 | | Size 3 | | | Size 4 | | | | | | |
| mm | 235 x 210 x 1507 | | 235 x 210 x 1507 | | 305 x235 x 2007 | | | 305 x 235 x 2007 | | | | | | |
| in | 9.3 x 8.3 x 59.3 | | 9.3 x 8.3 x 59.3 | | 12 x 9.3 x 79 | | | 12 x 9.3 x 79 | | | | | | |

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TWIST TORSION MOUNT - NEAR SIDE

Shipping Dimensions - W x H x L (mm(in))

E955 (Complete assembled systems)

| BELT WIDTH | 400 | 450 | 500 | 600 | 750 | 900 | 1050 | 1200 | 1350 | 1500 | 1650 | 1800 | 2100 | 2400 |
|---------------|------------------|-----|-----------------|----------|------------------|-----------------|------|------------------|-----------------|------|------|------|------|------|
| SIZE RANGE | Size 1 | | Size 2 | | | Size 3 | | Size 4 | | | | | | |
| mm | 200 x 200 x 300 | | 200 x 200 x 300 | | 200 | 200 x 200 x 300 | | | 310 x 300 x 510 | | | | | |
| in | 7.9 x 7.9 x 11.8 | | 7.9 x 7. | 9 x 11.8 | 7.9 x 7.9 x 11.8 | | | 12.2 x 11.8 x 20 | | | | | | |

TWIST TORSION MOUNT - FAR SIDE

Shipping Dimensions - W x H x L (mm(in))

E955 (Complete assembled systems)

| | (complete described systems) | | | | | | | | | | | | | |
|---------------|------------------------------|-----|-----------------|----------|------------------|--------|------|------------------|------|------|------|------|------|------|
| BELT WIDTH | 400 | 450 | 500 | 600 | 750 | 900 | 1050 | 1200 | 1350 | 1500 | 1650 | 1800 | 2100 | 2400 |
| SIZE RANGE | Size 1 | | Size 2 | | | Size 3 | | Size 4 | | | | | | |
| mm | 200 x 200 x 300 | | 200 x 200 x 300 | | 200 x 200 x 300 | | | 310 x 300 x 510 | | | | | | |
| in | 7.9 x 7.9 x 11.8 | | 7.9 x 7. | 9 x 11.8 | 7.9 x 7.9 x 11.8 | | | 12.2 x 11.8 x 20 | | | | | | |



11. Trouble Shooting

| Problem | Possible Cause | Possible Solution | | | | | | |
|-----------------------------|--|--|--|--|--|--|--|--|
| | Scraper under-tensioned | Adjust to correct pressure - refer installation instructions | | | | | | |
| Poor cleaning | Scraper over-tensioned | Adjust to correct pressure - refer installation instruction | | | | | | |
| performance | Scraper installed in wrong location | Verify dimension - refer installation drawing | | | | | | |
| | Scraper blade worn or damaged | Replace scraper blade | | | | | | |
| | Tension on scraper too high/low | Adjust to correct tension - refer installation instruction | | | | | | |
| | Scraper not located correctly | Check scraper location for correct dimensions | | | | | | |
| Panid Plade Wear | Blade attack angle incorrect | Check scraper location for correct dimensions | | | | | | |
| Rapid Blade Wear | 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 smaller than material path | Add additional blade to match material path | | | | | | |
| blade (smile effect) | Tension on scraper too high/low | Adjust to correct pressure - refer installation instruction | | | | | | |
| | Mechanical splice damaging blade | Repair, skive or replace splice | | | | | | |
| Unusual wear or | Belt damaged or ripped | Repair or replace belt | | | | | | |
| damage to blade | Scraper not correctly located | Verify dimension - refer installation drawing | | | | | | |
| | Damage to pulley or pulley lagging | Repair or replace pulley | | | | | | |
| | Scraper not located correctly | Verify dimension - refer installation drawing | | | | | | |
| | Blade attack angle incorrect | Verify dimension - refer installation drawing | | | | | | |
| Nile and in a second second | Scraper running on empty belt | Use a spray pole when the belt is empty | | | | | | |
| Vibration or noise | 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 | Scraper tension not set correctly | Ensure correct tension/increase tension slightly | | | | | | |
| pushed away from | Sticky material is overburdening scraper | Increase tension; add primary (head pulley) scraper | | | | | | |
| pulley | Scraper not set up correctly | Confirm location dimensions are equal on both sides | | | | | | |