

SC16 Secondary Cleaner

HSE Information

- Proceeding to work area, identify hazards associated with this task, TMM, LDV, Spillage on walkways, Moving machinery.
- Check for obstructions, gearbox, spillage, grease, oil.
- Conduct a risk assessment(JSA)
- Restricted access if applicable.
- Lock out according to specific mine procedure.

Special instructions

- Removal of guards requires permit.
- Personel needs to be competent and authorised to work on conveyor systems.

Special Tools

- Standard support pipe is installed on the current scraper.
- Support lift pipe

STEP 1: Isolate and lockout, according to specific mine procedure.

STEP 2: Conduct risk assesment (JHA) and discuss specific tasks allocated to each team member.

STEP 3: Remove gaurds if applicable.

STEP 4: Loosen stop blocks on both sides of the scraper.



STEP 5: Loosen bolts that attach the clamp to the bracket, on the side that does not have the standard support pipe.

STEP 6: If no standard support pipe on the installation, make use of the lift pipe tool provided.

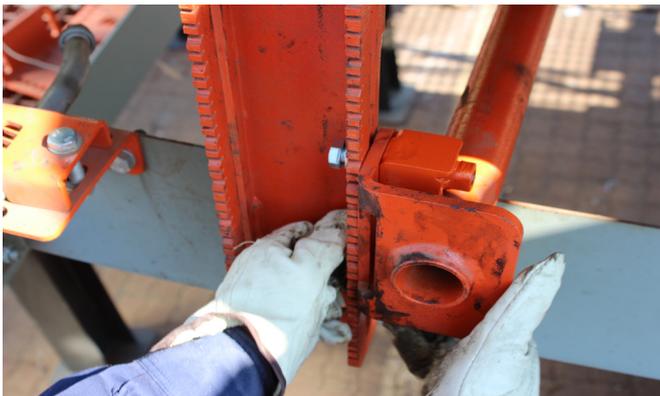
STEP 7: Loosen and remove shell clamp bolts holding the scraper pipe.

STEP 8: Undo the shell clamp bolts completely. Remove the shell

STEP 9: The scraper can now be removed without any obstructions or restrictions.

Draw the scraper toward the side with the most room in which to work whilst supported by the standard support pipe.

STEP 10: Remove the scraper from the chute.



INSTALLATION PROCEDURE

STEP 11: Select clean flat work area. Place scraper pipe on work area where buffers and blades can be washed and cleaned with a hosepipe, if water is available to be used.

STEP 12: Check blades and buffers for wear and damage. Push & pull buffers for stiffness or if buffer lies back more than others.

STEP 13: Measure and note tungsten wear on all good blades.

STEP 14: Replace all individually worn or damaged blades and buffers.

STEP 15: Starting from centre of scraper pipe push all buffers outwards to max of slots both left and right.

STEP 16: Bring the two centre buffers and blades together with a half millimetre gap between blades.

STEP 17: Move next 2 buffers & blades either side of centre buffers & blades & set 0.5 mm gap between blades & buffer setscrews



STEP 18: Continue this sequence until all gaps between blades have been properly set at 0.5 mm.

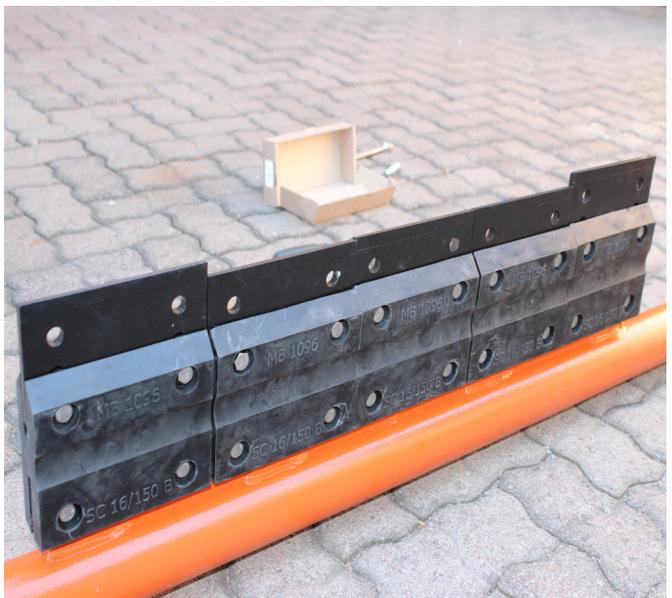
STEP 19: Push all blades to bottom of buffer slots.

STEP 20: Pull the two outer blades up as far as they will go, tighten the setscrews firmly by hand.

STEP 21: Place straight edge on top of blades & tap down on top of straight edge with hand until blades are straight (aligned).

STEP 22: Pull the next two outer blades up above the two blades which have just been aligned and slightly tighten setscrews. Place straight edge on top of blades & tap down on top of straight edge with hand until all blades are straight edge.

STEP 23: Continue this procedure until all the blades are straight and in line with straight edge. NB: Only wooden or other material accepted by mine may be used as straight edge underground.



STEP 24: Re-check alignment of blades.

STEP 25: Insert the complete scraper in to the chute, making use of the standard support pipe. The scraper must be inserted in a controlled manner. Before inserting the scraper, advise and make sure that the person on the other side is aware that you are inserting the scraper.

STEP 26: If no standard support pipe on the installation make use of the lift pipe tool provided.

STEP 27: Lift the scraper assembly until all the blades just touch the belt at 90 degrees to the belt. Tighten one bolt holding the half clamp to the bracket on both sides.



MAINTENANCE PROCEDURE

STEP 28: Tension scraper to belt by using the adjusting stop block. If no stop block. Lift scraper to belt making use of the lift support pipe and scraper pipe, tighten bolts. Push the closet blade in the direction of belt travel, the blade should return and be approximately 8mm from the next blade.

STEP 29: Make a mark on flat of the hex head setscrew before starting to tighten adjusting setscrews either side of scraper

NOT MORE THAN 2 to 3 full turns must be made either side of scraper

- 1 full turn = 1,75mm
- 2 full turns = 3.50mm
- 3 full turns = 5,25mm

NB: If hex head of setscrew is not marked and only a quarter turn is possible of tightening setscrew then proceed as follows:

- * 4 quarter turns = 1 full turn
- * 8 quarter turns = 2 full turn
- * 12 quarter turns = 3 full turn

*Measure from BTM of stringer to belt

*Measure from BTM of belt to pipe

*Measurement from belt to stringer/pipe max.

Difference on any one side must equal 5mm



STEP 30: Tighten all setscrews and nuts either side of scraper.

STEP 31: Clear all people, tools, spares etc. from work area.

STEP 32: Replace any guards where applicable.

STEP 33: Each person to remove his own locks and tags.

STEP 34: If possible run belt to check. Effectiveness of scraper.



Martin Engineering Africa
Cnr Antwerpen str & Arnheimsingel
Die Heuwel, Witbank, Emalahleni
Tel +27 13 656 5135
Fax +27 13 656 5129
www.martin-eng.co.za

