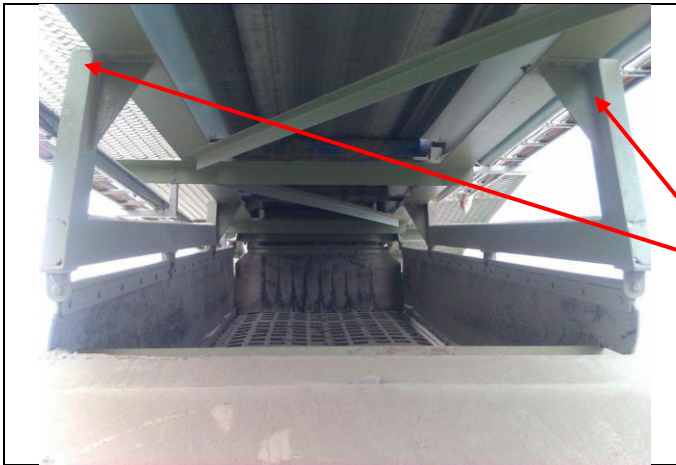


PLANT AUDIT REPORT

PLANT AUDIT PERFORMED FOR:			
PLACE:			
CONTACT:			
DATE OF AUDIT:		5/8/2011	David Hewitson
TYPE OF MATERIAL PROCESSED:		Blue Metal	ESTIMATED ANNUAL TONNAGES: 900,000 TPA

Please see the attached findings from the site visit performed on **Date 5/8/2011**

#1



Observation: Material bouncing over the end of the screen
This condition is typical of rubber screen cloths that are under tensioned or where there is insufficient feed.

Solution: Given that the cloth tension is adequate the problem is most likely insufficient feed and bed depth. If the feed rate cannot be increased hang a rubber curtain from the conveyor frame at the end of the screen to prevent spillage.

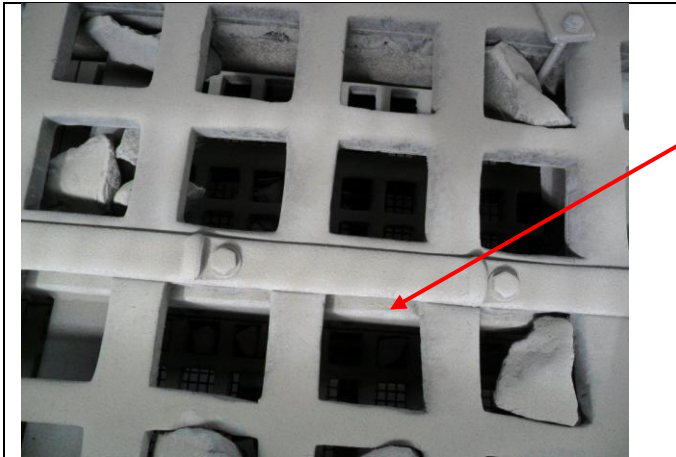
#2



Observation: Worn screen impact plate

Solution: Replace steel plate with 40mm thick steel backed bolt on rubber wear liner for long maintenance free wear life and noise reduction

#3

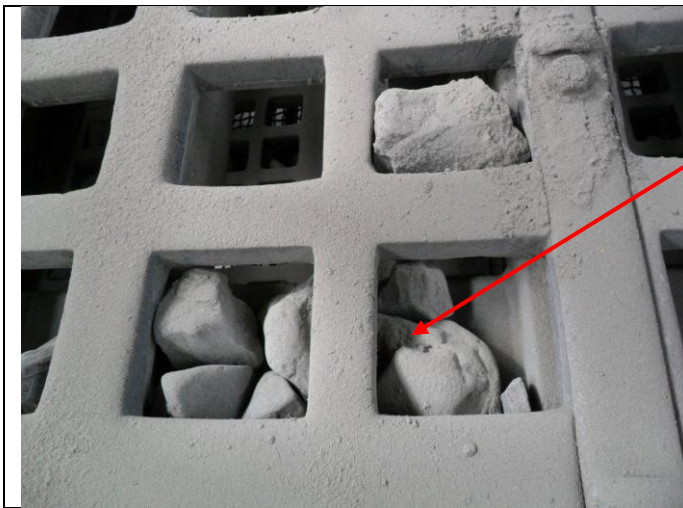


Observation: Screen sub-frame exposed to wear because the rubber screen cloth does not fit correctly. The screen cloth is made to fit a screen deck with 50mm wide centre support.

Solution: Ensure all future supplies of screen cloths are designed to fit your screen with 75mm wide centre support.

Replace steel centre hold down bars with 75mm wide x 50mm thick rubber centre hold down bars

#4



Observation: Material is being trapped between the screen cloth and the screen frame cross beams. The continuous impact and abrasion is causing damage to the frame.

Solution: Blank off the screen cloth over the beams or reduce the size of the apertures so the material is small enough to not foul between the cloth and the frame

#5



Observation: Rubber screen cloth not fitted correctly. It can be seen that the material has worn through the capping rubber and is damaging the steel support bar

Solution: Always centralise the rubber screen on the screen deck prior to tensioning and use correct tensioning procedures.

Ensure the rubber screen cloth is manufactured to the correct dimension

#6



Observation: Tensioning springs used on side clamp bar bolts. Springs can make it very difficult to achieve and maintain even tension on the screen cloth

Solution: Remove springs and replace with domed washer



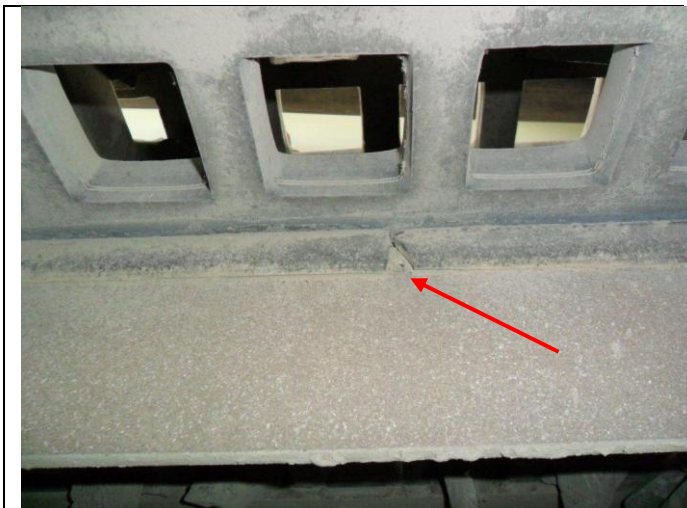
#7



Observation: Material is being trapped between the rubber access point curtain on the feed end of middle deck, causing localised high wear points and reduced screening efficiency

Solution: Cut the rubber curtain shorter so it prevents spillage but does not interfere with screening

#8



Observation: Hawk screen middle deck- Join in capping rubber

Solution: It is good practice to use one single continuous strip of capping rubber for the full length of the screen

#9



Observation: Hawk screen middle deck- incorrectly fitting screen cloth. Rubber screen cloth not covering the centre support rail. Material pegging and wearing on the frame.

Solution: Always centralise the rubber screen on the screen deck prior to tensioning and use correct tensioning procedures.

Ensure the rubber screen cloth is manufactured to the correct dimension

#10



Observation: Hawk Screen bottom deck - Screen cloth side hook hard up against the side wall of screen

Solution: Always centralise the screen on the screen deck prior to tensioning and use correct tensioning procedures.

There should be 15mm – 20mm clearance between the outside edge of the side hook and screen box wall when the screen cloth is correctly tensioned

#11



Observation: Screen 3 top deck - Excessive aperture pegging. This can be the result of over tensioned rubber screens or the rubber screen is too thick.

J-bolts used to clamp screens to support rail.

Solution: Reducing the thickness of the rubber screen will reduce pegging, reduce cost, increase screening efficiency and will most likely have no affect on wear life.

J-bolts should not be required on this machine. If there is difficulty in maintaining tension check screen camber and capping rubber profile.

#12



Observation: Screen 3 top deck - Rubber screen cloth not fitted correctly.

Solution: Always centralise the rubber screen cloth on the screen deck prior to tensioning and use correct tensioning procedures.

Ensure the rubber screen cloth is manufactured to the correct dimension

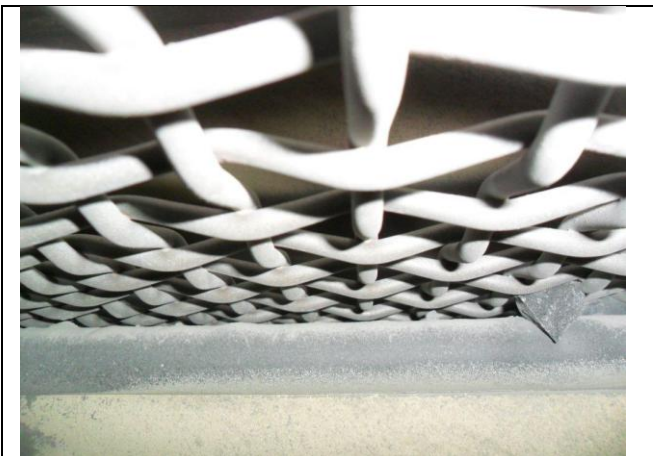
#13



Observation: Screen 3 middle deck – some blinding of woven mesh screens

Solution: If blinding affects screening efficiency consider self cleaning Flexmats or rubber screens

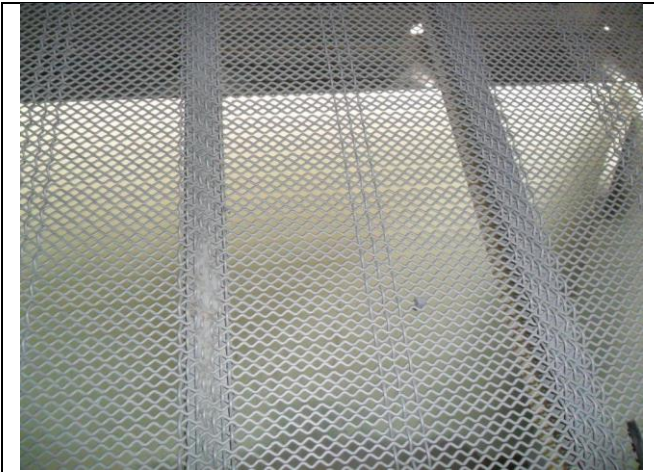
#14



Observation: Middle deck S3 – Screen cloth not sitting on outer support rails. This can have a very serious affect on screen cloth wear life

Solution: Check the screen has been manufactured with the correct crown (camber). This can be done by running a string line over the crown or measure crown against manufacturers specification.

#15



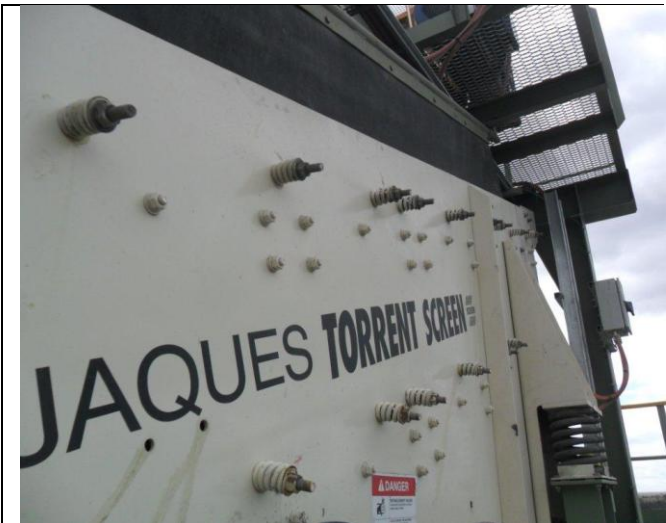
Observation: Inferior quality screen media.

It can be seen that the apertures are quite irregular which will allow oversize material to pass through the screen.

Solution: Replace with high performance Flexmat screens for accurate sizing and longer wear life



#16



Observation: Tensioning springs used on side clamp bar bolts.

Springs can make it very difficult to achieve and maintain even tension on the screen cloth

Solution: Remove springs and replace with curved washer



#17



Observation: Screen 4

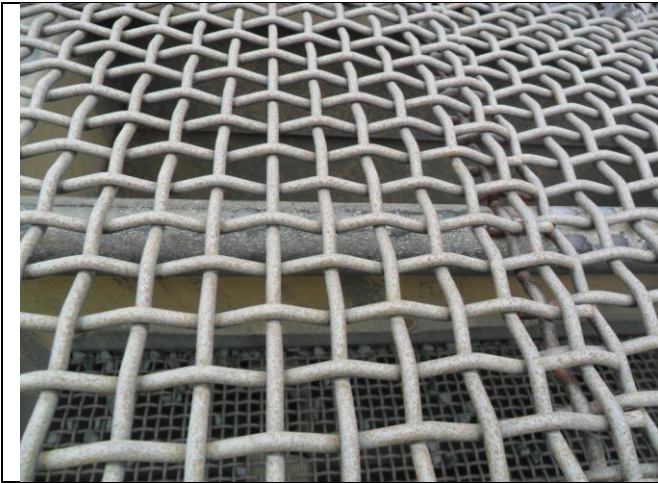
Steel screen impact plate.

Screen cloth in position 1 - high wear

Solution: When worn replace steel plate with 40mm thick steel backed bolt on rubber wear liner for long maintenance free wear life and noise reduction.

For long maintenance free operation install rubber screen cloth in position # 1

#18



Observation: Top deck S4 – Screen cloth not sitting on outer support rails. This can have a very serious affect on screen cloth wear life

Solution: Check the screen has been manufactured with the correct crown (camber). This can be done by running a string line over the crown or measure crown against manufacturers specification.

#19



Observation: Top deck S4 - Screen cloth not fitted square

Solution: Always centralise the screen cloth on the screen deck prior to tensioning and use correct tensioning procedures.

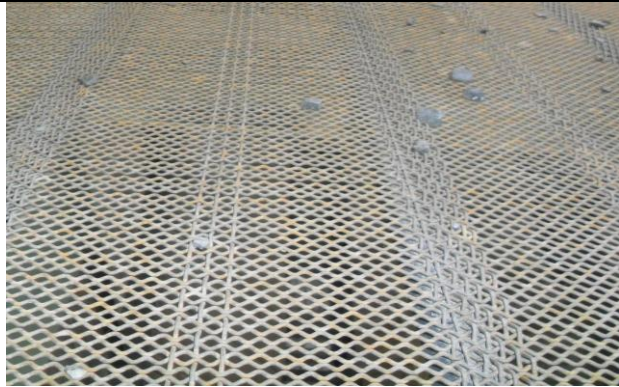
#20



Observation: Top deck S4 – Screen cloth not sitting on side support rails. This can have a very serious affect on screen cloth wear life

Solution: Check the screen has been manufactured with the correct crown (camber). This can be done by running a string line over the crown or measure crown against manufacturers specification

#21

**Observation:** Inferior quality screen media.

It can be seen that the apertures are quite irregular which will allow oversize material to pass through the screen.

Solution: Replace with high performance Flexmat screens for accurate sizing and longer wear life



#22

**Observation:** Screen 5

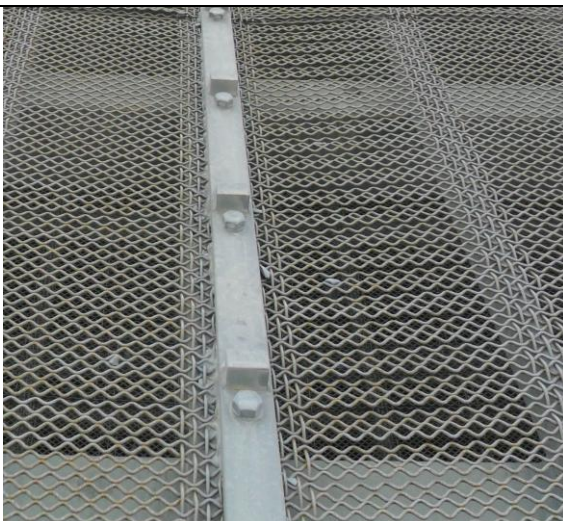
Steel screen impact plate.

Screen cloth in position 1 - high wear

Solution: When worn replace steel plate with 40mm thick steel backed bolt on rubber wear liner for long maintenance free wear life and noise reduction.

For log maintenance free operation install rubber screen cloth in position # 1

#23

**Observation:** Screen 5 Top deck - Inferior quality screen media.

It can be seen that the apertures are quite irregular which will allow oversize material to pass through the screen.

Solution: Replace with high performance Flexmat screens for accurate sizing and longer wear life



#24



Observation: Screen 5 Top deck – Side clamp overlapping to next cloth making it impossible for accurate tensioning.

It is vital for maximum screening efficiency and screen cloth wear life to maintain good tension

Solution: Never overlap side clamp.

One hook – one side clamp

#25



Observation: Screen 5 middle deck - Inferior quality screen media.

It can be seen that the apertures are quite irregular which will allow oversize material to pass through the screen.

Solution: Replace with high performance Flexmat screens for accurate sizing and longer wear life



#26



Observation: Screen 5 bottom deck - Inferior quality screen media.

It can be seen that the apertures are quite irregular which will allow oversize material to pass through the screen.

Solution: Replace with high performance Flexmat screens for accurate sizing and longer wear life



#27

**Observation:** Screen 5 bottom deck – damaged cloth**Solution:** Replace

#28

**Observation:** Screen 5 bottom deck – Side clamp overlapping to next cloth making it impossible for accurate tensioning.

It is vital for maximum screening efficiency and screen cloth wear life to maintain good tension

Solution: Never overlap side clamp.**One hook – one side clamp**

Summary

- Source rubber screen cloths from a supplier who can custom design them for your specific application
- Remove side clamping tensioning springs and replace with domed washers
- Check screen crown on all decks to ensure even camber for proper screen cloth tensioning
- Only purchase quality woven mesh screens such as Nepean OptimumWire screen cloths
- Install rubber screen cloths in position one on top deck of screens 4 & 5
- Replace the substandard self cleaning wire screen cloths with quality Flexmats for long wear life and in spec product
- Always observe proper installation techniques and always replace support bar capping when changing screen cloths
- Never overlap side clamp. One hook – one side clamp

Nepean Rubber appreciate the opportunity to work with your company to solve your screening problems, eliminate premature screen media failure, increase your production and reduce your cost per ton to produce saleable materials.

We hope that you find this audit report to be beneficial and we would be happy to work with you on any future screen media needs or screening challenges. Please feel free to contact us at the number listed below.

David Hewitson
Applications Engineer
Nepean Rubber
Ph 0459545064