Technical Data Sheet

Rubber Wear Liners

Agile Screening offers a complete range of wear and impact resistant rubber liners. Flat top liners for general purpose applications to washboard liners for generally unsuitable angles of impact. The range incorporates tee head bolt fastening systems or mild steel. Rubber Wear Liners are ideally suited for feeder liners, truck linings, chute linings, deflectors in conveyor transfer points, etc.

Rubber Wear Liners for Abrasion and Impact Resistance

Agile Screening Liners are designed to:

- Reduce impact on supporting structures
- Reduce maintenance and downtime on equipment
- Increase the wear life of plant and machinery
- Reduce noise

The same tough rubber installed in our Ball Mill Linings is used in our Wear Liners System – designed and manufactured to suit your requirements. Our engineering design support is only part of the total service you can expect from Agile Screening.

Custom Made Rubber Wear Liners

Agile Screening wear Liners are produced in several sizes to suit most applications.

- Thickness varies from 20mm through to 130mm, width from 300mm to 750mm and length 1000mm to 1500mm.
- Two styles of rubber elements are produced. The plain flat top liner and the washboard top liner.
- Both styles of liner are available with either a mild steel backing hot moulded to the rubber or with a tee track system, which allows fastening by means of a forged tee head bolt.

Selection of a suitable Liner

Consideration must be given to several factors:

1. Thickness
When selecting the thickness of rubber to be used in the lining, consideration should be made as to the weight of the largest piece of material to hit the liner and the height of fall onto the liner. The table below shows the recommended rubber thickness for varying lump weight and height of fall. To these figures you should add a safety margin of some 25mm as well as an allowance for wear.

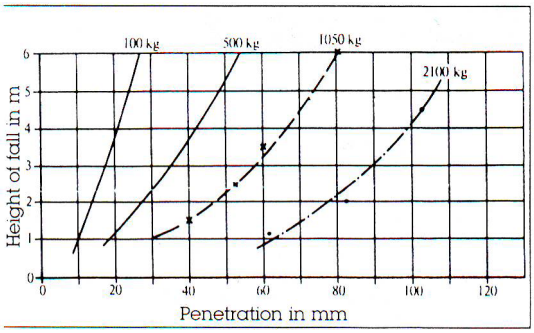


Fig. 1

Width A	Length B	Thickness C	Steel Thickness D	Width E
300	1000	20	3mm	300 up to
450	1250	30	3mm	600
500	1500	55	6mm	
600		80	10mm	450 for
750		105	10mm	750 wide
		130	10mm	

2. Angle of impact

The wear on the rubber lining is low in the area of sliding along the surface as well as dropping at an angle of 90° to the surface. If the angle of impact on the rubber surface is reduced below 90° the rubbers actual shock absorbing effect is gradually being reduced with the angle and turned into shear stresses, which increase the wear. An illustration of these conditions is seen in figure 2.

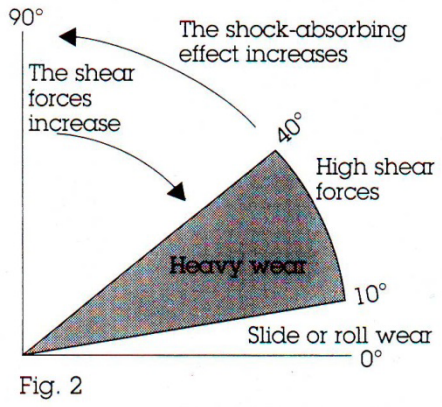


Fig. 2

As shown, angles of impact between 10° and 40° involve the greatest risk of wear and in order to offset the effect, washboard liners are recommended. See figure 3

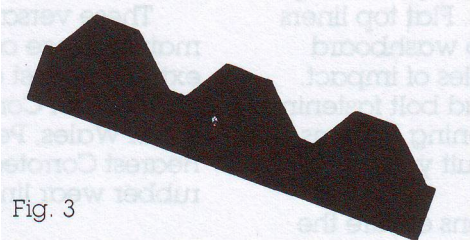


Fig. 3

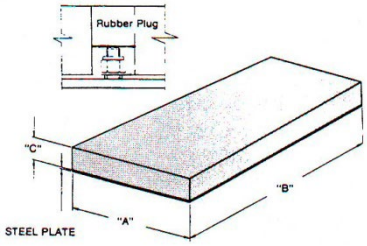
Rubber Wear Liners

3. Fastening Method

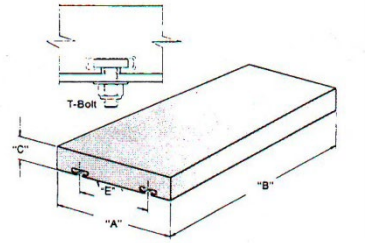
An extremely strong fastening system is required with rubber liners, these liners are subject to not only impact stresses and sliding wear but also to pulling pressure from fine material trying to get in behind the liners.

Two suitable methods of fastening are recommended:

A. Stud Bots/ Hex. Head Bolts. The liners are supplied with a steel backing plate hot moulded into the rubber liner. The liner is drilled and counter bored through the backing plate to enable the studs (which are first welded to the parent liner) or Hex. Head Bolts to be fastened to the rubber liner. Rubber plugs are used to cover the exposed mounting hole. See Figure 4.



B. Tee Bolts. The rubber liners are supplied with integrally moulded tracks to enable tee head bolts to be used as the fastening method. Mild steel tracks or aluminum tracks are available. See Figure 5.



Noise Reduction considerations

Noise reduction from the use of rubber liners is of considerable interest. When compared to steel liners the noise reduction is in the vicinity of from 94 dB down to about 75dB in the 100 to 1000 hertz range. As the decibel scale is logarithmic it means a considerable reduction below the required maximum levels.