

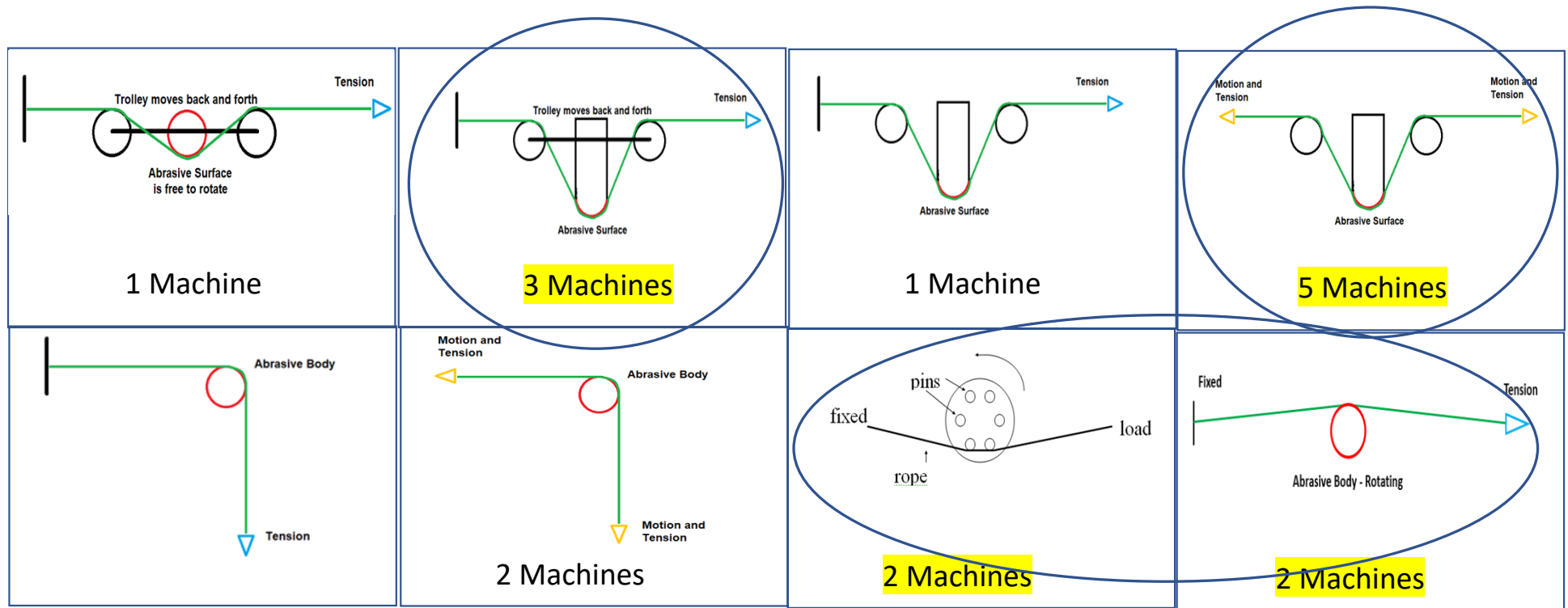
Abrasion Test Machines: Survey Results



CIRTS
Committee for International
Rope Testing Standards



Rope Abrasion Machine Survey



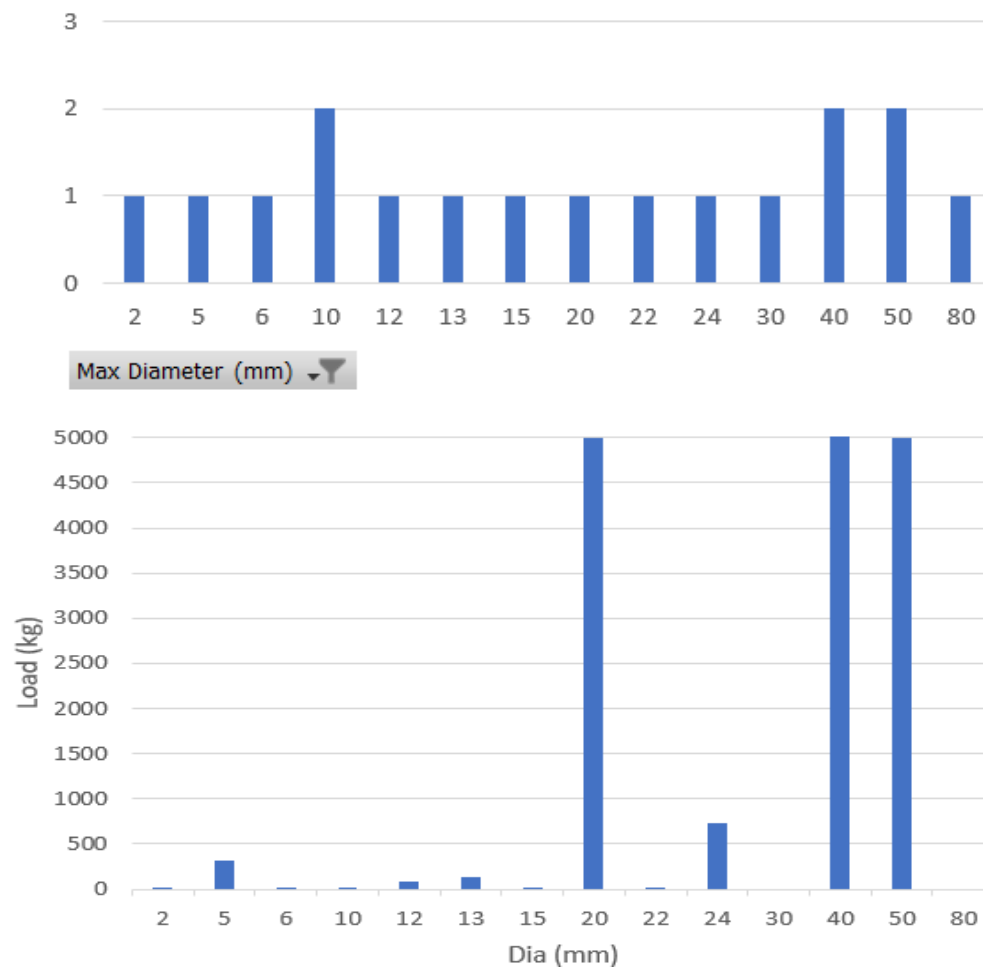
Abrasion Test Design Principles

- Movement:
 - Rope static, surface dynamic
 - Surface static, rope dynamic

**does it make a difference which moves?*
- Load
 - Static / constant

**tension or contact pressure?*
- Conditions
 - Wet or dry both (generally) possible

Maximum diameters & loads



Abrasion
surfaces
used

sandpaper

metal/grindstone

Corundum - crystalline form of aluminum oxide

Steel / Stainless steel
(various surface finishes)

Angle iron or Hexagonal bar

Abrasion & failure modes...which one to choose:

Rope moves under tension	Abradant move against rope	Rope is stationary but elongates under tension
Arborist rigging ropes	Climbing lines (hardware, rope hitches)	Vessel mooring (chocks & fairleads)
Towing (A-frame abrasion)		

