



# LOAD BRAKE GOT YOU DOWN?

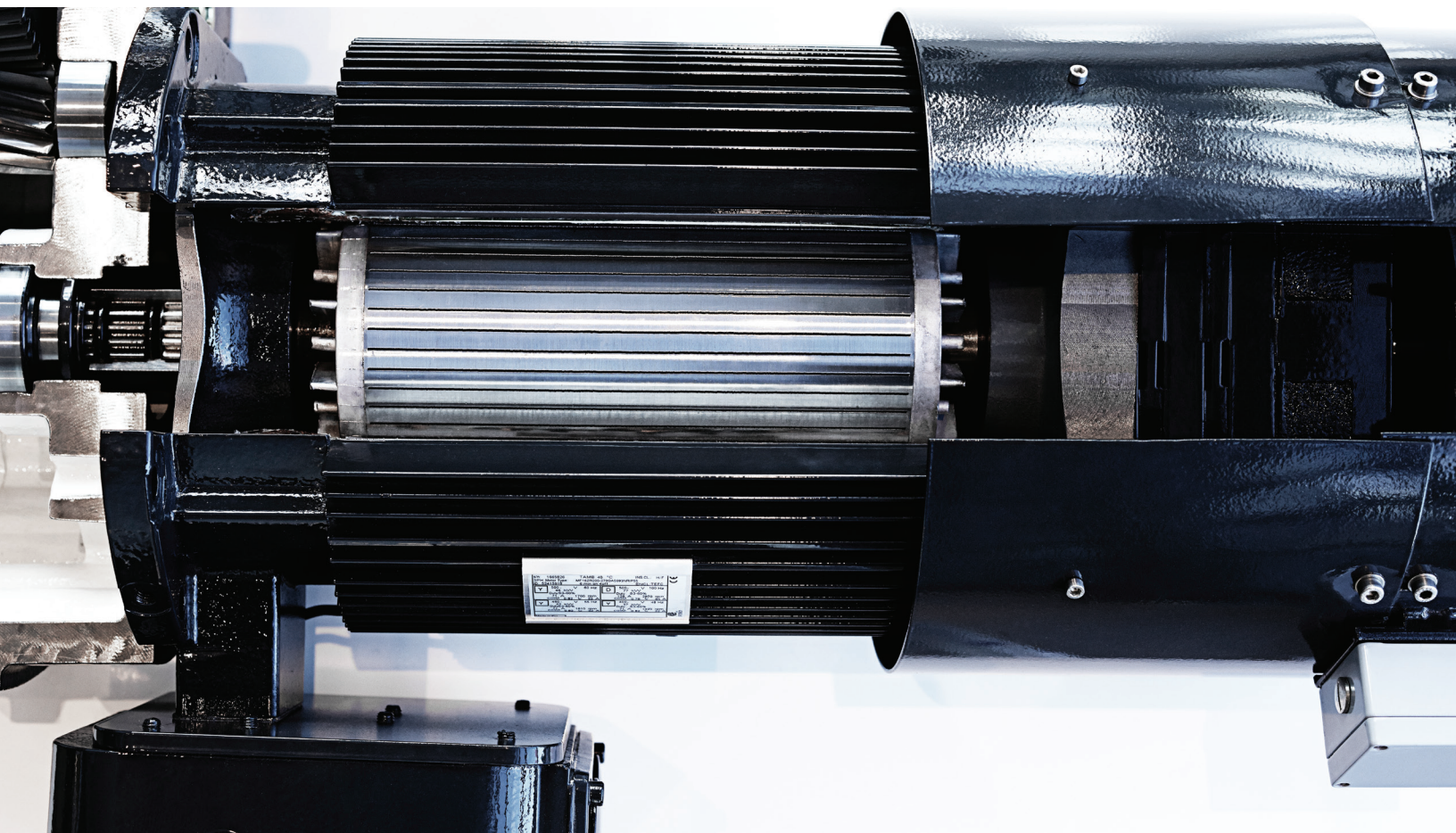
R&M's Spacemaster® SX hoist features a squirrel cage type motor with DC brake - the most modern and cost-effective hoisting brake option.



# RISE ABOVE™

## WHAT IS A MECHANICAL LOAD BRAKE?

The primary function of a mechanical load brake is to provide a “control braking means” to control the lowering speed of the hoist load; the load brake should also be able to hold the load independently of the hoist holding brake. During the first half of the twentieth century, the vast majority of AC motors used on hoisting equipment were “wound rotor motors”. Without a control braking means, a load being lowered would continue to accelerate under the force of gravity with little resistance. Unlike a squirrel cage motor, a wound rotor motor does not inherently generate a retarding torque that controls the rate of acceleration of a descending load. The innovative Spacemaster® SX hoist utilizes a squirrel cage motor which is inherently capable of regenerative control braking, while avoiding the many maintenance pitfalls associated with load brake hoists.



### LOAD BRAKE PITFALLS

- Increased lifetime costs for the equipment due to increased maintenance and difficult to inspect friction material.
- Load brakes provide no additional safety when a failure occurs beyond the location of the load brake
- Heat and contaminants generated by the load brake will decrease the lifetime of the hoist gear train

### ADDITIONAL SAFETY OPTIONS

If redundant safety is required, the Spacemaster SX is available with a secondary holding brake or hoist drum brake option. Both the secondary brake and drum brake options provide redundancy in the event of motor brake failure without compromising the lifetime of the gear train or limiting hoist control options.