Yale® HOISTS

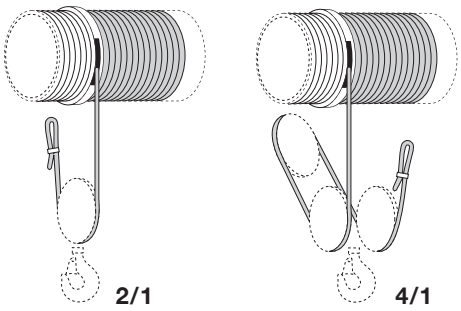
YK™

ELECTRIC WIRE ROPE HOISTS

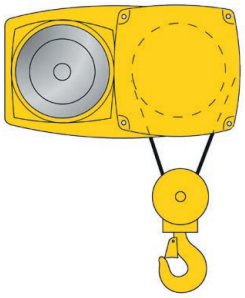
YK™ ELECTRIC WIRE ROPE HOISTS AND CRANE COMPONENTS

When you need quality and performance in a wire rope hoist, turn to the Yale® YK™ hoist from Columbus McKinnon. Based on German technology, the Yale YK delivers the industry-leading technology and safety you need for your lifting applications in a compact, easy-to-maintain design. Precision engineered, these hoists are built for reliable operation, high efficiency, and long service life and are competitively priced for the U.S. market. Operators, crane manufacturers, and system manufacturers can benefit from the hoist's modular system that allows for configuration of the hoist and crane system to exact application needs. Complete with a low-headroom trolley, the Yale YK is ideal for applications with space limitations.

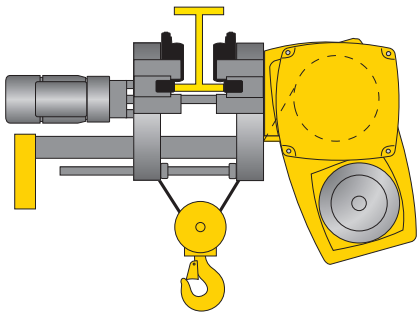
CAPACITIES: 1 TO 30 TONS | LIFT: MAXIMUM 131 FT.



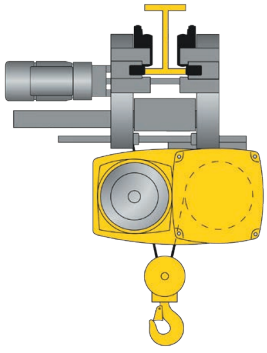
SINGLE-GROOVED ROPE DRUM
2-part single or 4-part single reeving is available, depending on the application.



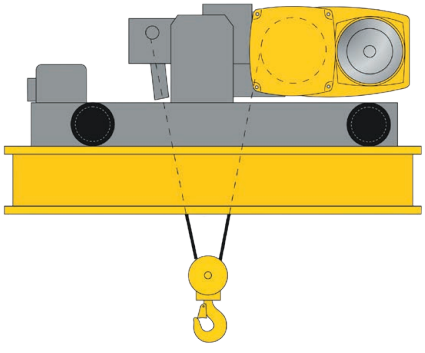
BASE MOUNT MODEL
Can be used as stationary hoisting or towing equipment, for example in systems manufacturing. The rope lead-off angle, the hoist mounting, and the mounting position of the hoist motor can be adjusted as needed. Available for 1-30 ton capacities.



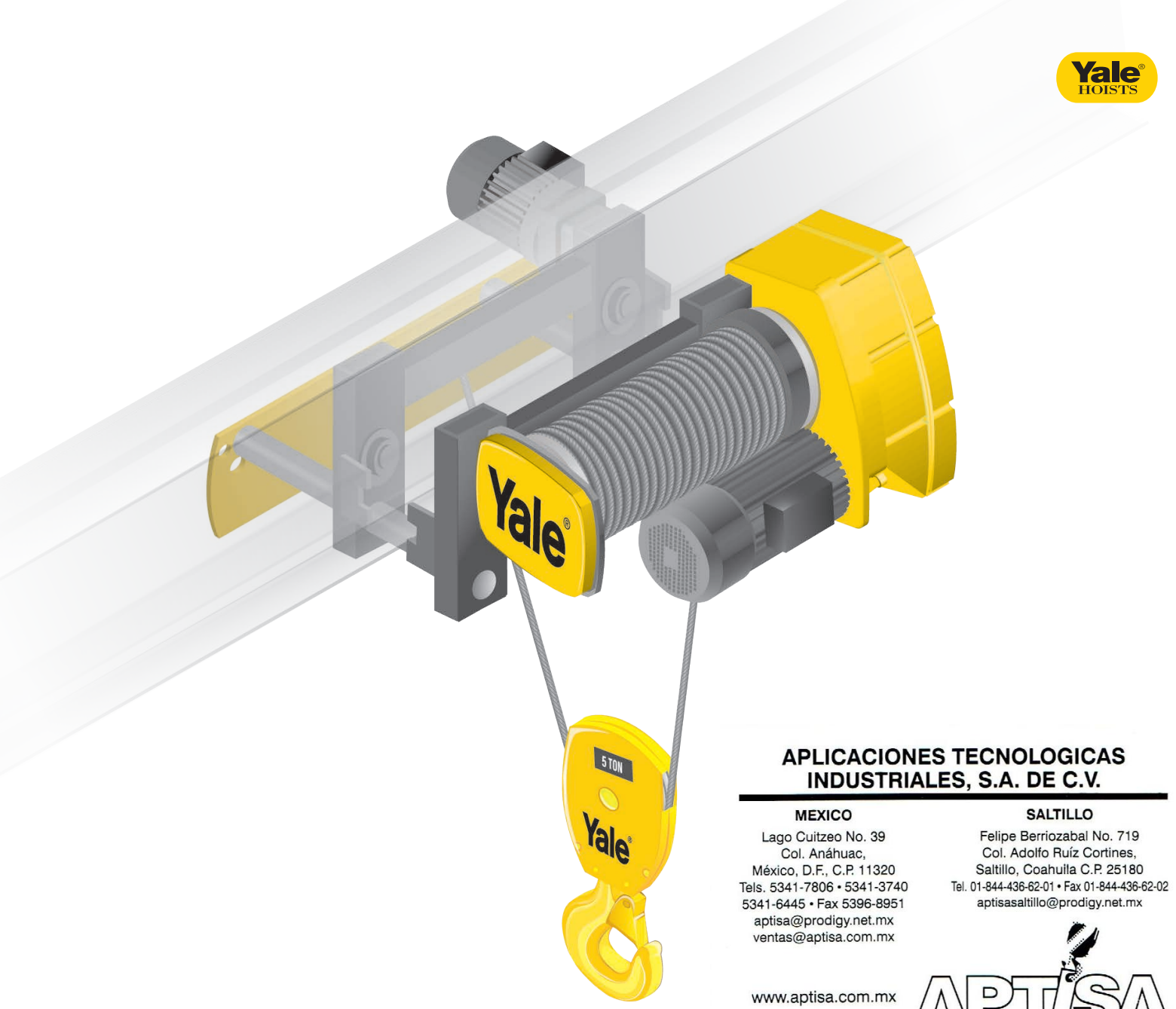
LOW-HEADROOM MONORAIL TROLLEY
The monorail trolley is used on monorail runways and single-girder overhead traveling cranes. Trolley is easily adjustable for different beam sizes and comes standard with two speed trolley. Available for 1-15 ton capacities.



STANDARD HEADROOM MONORAIL TROLLEY
Specially designed for small clearances, the monorail trolley has a narrow width. It is used on monorail runways and single-girder overhead traveling cranes. Available for 20-30 ton capacities.



TOP RUNNING DOUBLE GIRDER TROLLEY
Extremely compact with minimal hook approach and headroom dimensions. Flexible design ensures all four wheels are in contact with the girder. Available for 1-30 ton capacities.



COMPACT DESIGN
Compact dimensions due to U-shape design. Exceptionally short approach allows for optimum use of work area when space is limited.

LOW MAINTENANCE
Largely maintenance-free design with field-proven components designed for low wear and long service life.

SHORT LEAD TIMES
Assembled in Wadesboro, North Carolina, with German-made components, these units offer short lead times to meet tight deadlines.

H3, H4 & H4+ DUTY CYCLE

FLEXIBLE CONFIGURATIONS
Hoists can be configured to your unique application needs. Available in 5 frame sizes with 16 load capacity variants.

EXTENSIVE SAFETY FEATURES
Standard safety features include block-operated limit switch, adjustable geared limit switch, motor temperature control, and overload protection.

SMOOTH OPERATION
Extremely smooth starting and braking characteristics.

OPTIONAL PANEL AND MOTOR HEATERS
Available for hoist, trolley, and bridge motions.

OPTIONAL PATENTED TRACK WHEELS
Monorail trolley packages for patented track wheels are available for capacities up to 7.5 tons.

OPTIONAL TRAVEL LIMIT SWITCH
Standard version includes limit switching in both directions, switching from fast/slow, and IP65 or NEMA 4/4X rating. Wired and mounted to the hoist.

OPTIONAL TOWING ARM
Available for power supply with adjustable height and length.

OPTIONAL PENDANT CONTROL

OPTIONAL SPARE PARTS KIT

STANDARD FEATURES

Features	
Capacities	1–30 tons
Lift Heights	Up to 131 feet
Ambient Temperature	-4°F to +104°F (-20°C to +40°C)
Hoist & Trolley Protection to IEC/EN 60529	IP55 or NEMA 4/12
Voltage	208, 230, 460V, 3 phase, 60 Hz (Control Voltage 120V)
Third Party Labeling	UL508A
Warranty	3-year standard
Hoist	
Reeving	2PS & 4PS
Hoist Speed Control	2-speed control. Optional Magnetek VFD
Complete Hoist Control	Includes mainline contactor K10, transformer & trolley fuses. Does not include: main hoist fuses to be sized for both hoist and trolley – for use on monorails
Crane MFG Control	Includes safety contactor K20, trolley fuses. Hoist control does not include: transformer, mainline, main fuses sized for hoist & trolley (items not included to be located in bridge control panel) – for use on cranes
Control Enclosure	Fiberglass – IP55 or NEMA 4/12
Overload Protection	Standard electronic load limiting device
Geared Limit Switch	Four switching points (3 up, 1 down), Emergency top, Operational top, Changeover from fast to slow, Emergency bottom
Block-Operated Limit Switch	Standard
Rope Guide	Cast iron spheroidal graphite
Hoist Motor	Standard hoist performance monitoring
	3 phase A.C. squirrel cage induction motor, 2-speed cylindrical motor and flywheel mass for smooth start and stop
	6:1 ratio with class F insulation, S4 duty class, 40/20% duty cycle
	IP55 or NEMA 4/12
	Standard motor thermal protection
	Hoist motor connection wired into control enclosure
Hoist Motor Brake	DC power, no adjustment needed
	IP66 or NEMA 4/4x
	Double-sided, asbestos-free linings on monodisc
Hoist Drum	Machined steel – 40% grooved depth
Hoist Gearing	Helical lubed for life
Bearings	Anti-friction. All sealed for life
Hook Assembly	360° rotation with safety latch
Paint	Two part polyurethane base and top coat to 3.2 mil thickness or epoxy powder coat to 2.4 mil, Yale yellow
Trolley	
Types	Monorail, Double Girder, Base Mount
Trolley Control	Magnetic contactor – 2 speed. Optional Magnetek VFD
Travel Motor Speed 60 Hz	80/20 fpm
Bumpers & Drop Lugs	Standard
Mechanical Safety Devices	All trolleys come standard with anti-tipping devices and trolley guards
Trolley Motor	2 speed, S4 duty class, class F insulation, IP55 or NEMA 4/12
Trolley Brake	DC brake
Trolley Gearing	Helical
Temperature Control of Travel Motors	Standard
Wheel Material	Ductile Iron 240 BHN

HIGH INDENTATION HARDNESS WHEELS WITH SELF-LUBRICATED BEARINGS

Provide durability for long life

- YKA suitable for patented track as standard and YKB as optional

FINE MACHINING ROPE DRUM TO REDUCE ROPE WEAR

40% groove depth to ensure correct rope positioning

SLACK ROPE PREVENTION

High resistance cast iron spheroidal graphite rope guide encircles entire drum

HOIST MOTOR MANAGEMENT FOR SUPERIOR SAFETY

- Load monitoring to avoid overload operations
- Temperature control to avoid downtime

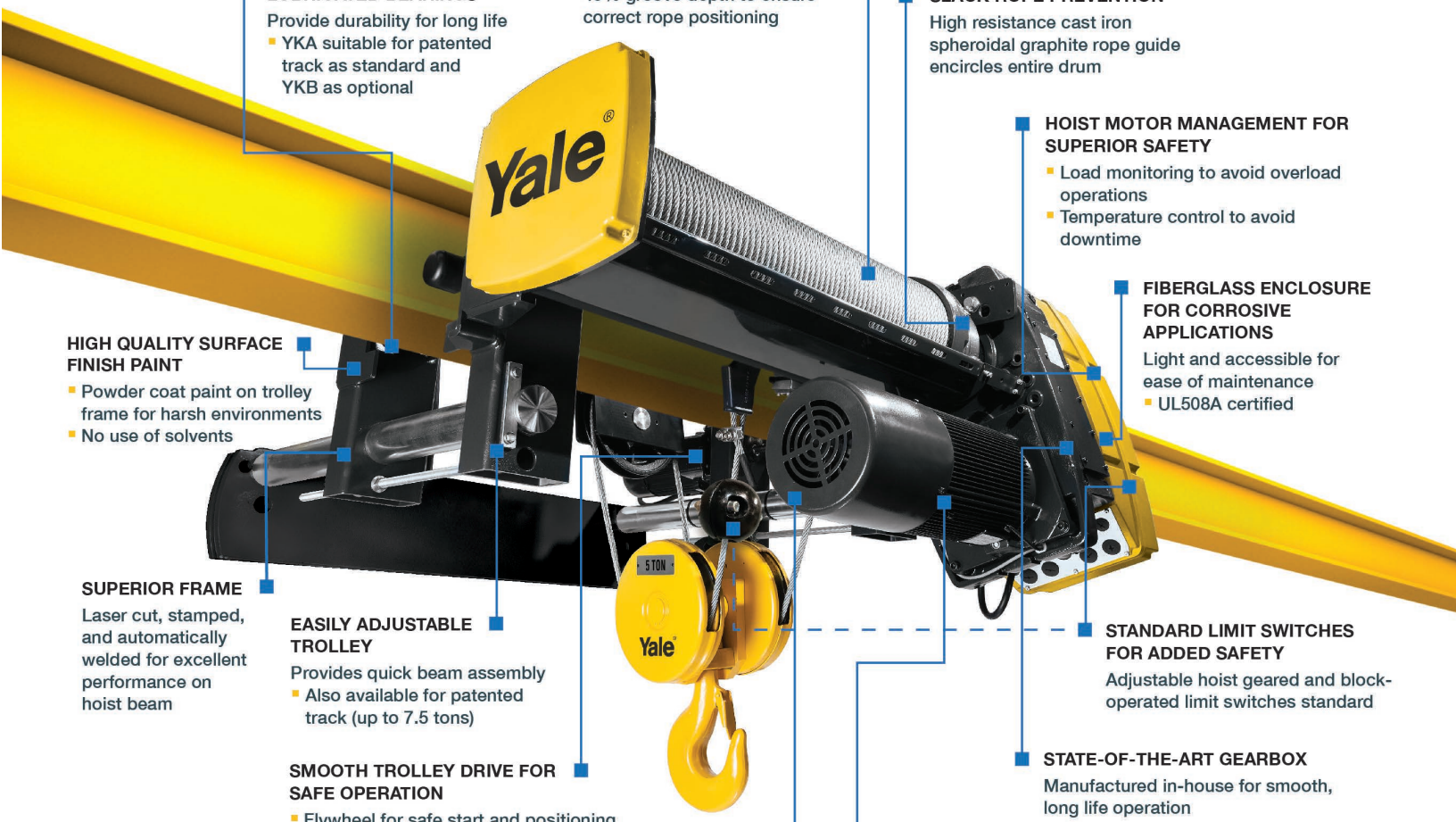
FIBERGLASS ENCLOSURE FOR CORROSIVE APPLICATIONS

Light and accessible for ease of maintenance

- UL508A certified

HIGH QUALITY SURFACE FINISH PAINT

- Powder coat paint on trolley frame for harsh environments
- No use of solvents



SUPERIOR FRAME

Laser cut, stamped, and automatically welded for excellent performance on hoist beam

EASILY ADJUSTABLE TROLLEY

Provides quick beam assembly

- Also available for patented track (up to 7.5 tons)

STANDARD LIMIT SWITCHES FOR ADDED SAFETY

Adjustable hoist geared and block-operated limit switches standard

SMOOTH TROLLEY DRIVE FOR SAFE OPERATION

- Flywheel for safe start and positioning
- High performance duty motor with brake

STATE-OF-THE-ART GEARBOX

Manufactured in-house for smooth, long life operation

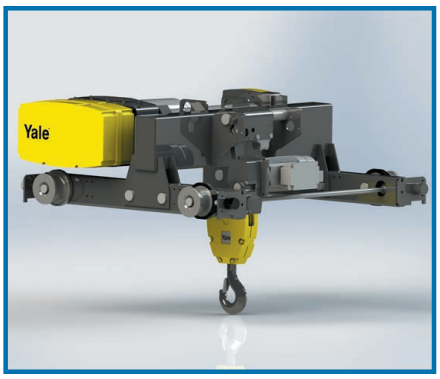
HIGH PERFORMANCE HOIST MOTOR

- Safe and reliable lifting operation
- High enclosure protection for harsh environments
- Directly assembled to gearbox (no coupling)
- Continuous duty with hoist VFD

QUICK HOIST BRAKE REACTION

Lower maintenance cost

- No brake adjustment needed



BUILT TO PERFORM

TECHNOLOGY

You can work with confidence knowing the technology behind the Yale YK is built to the highest industry standards. Working together, these low-maintenance components provide best-in-class performance, high efficiency, and long service life for any application. The Yale YK is also designed with safety in mind, including features such as geared limit switches, motor temperature control, and overload protection.

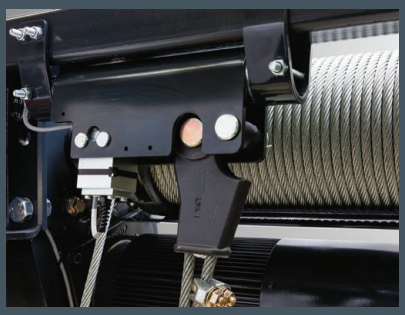
1 ROPE AND ROPE GUIDE

- Specialized wire rope is highly flexible and features a long service life
- Field-proven enclosed rope guide constructed of spheroidal graphite cast iron for high-temperature environments
- GJS material (previously designated GGG40) is suitable for extreme high and low temperatures
- 360° rope tensioner prevents rope slackening for added safety and performance
- Prevents overwrap and slack rope

2 PAINT

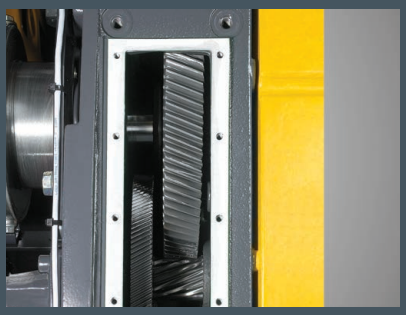
- Standard paint treatment in Yale yellow
- High-quality primer and top coats also available as standard

3 OVERLOAD PROTECTION



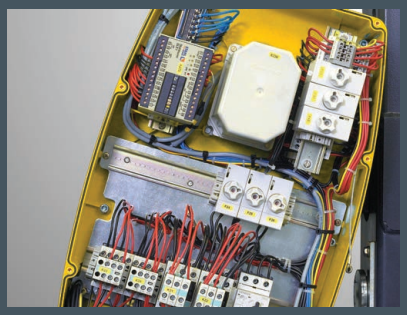
- Continuous electronic load monitoring when load is suspended
- Limitation on maximum load determined by load measurement at the rope anchorage point

4 PRECISION GEARING

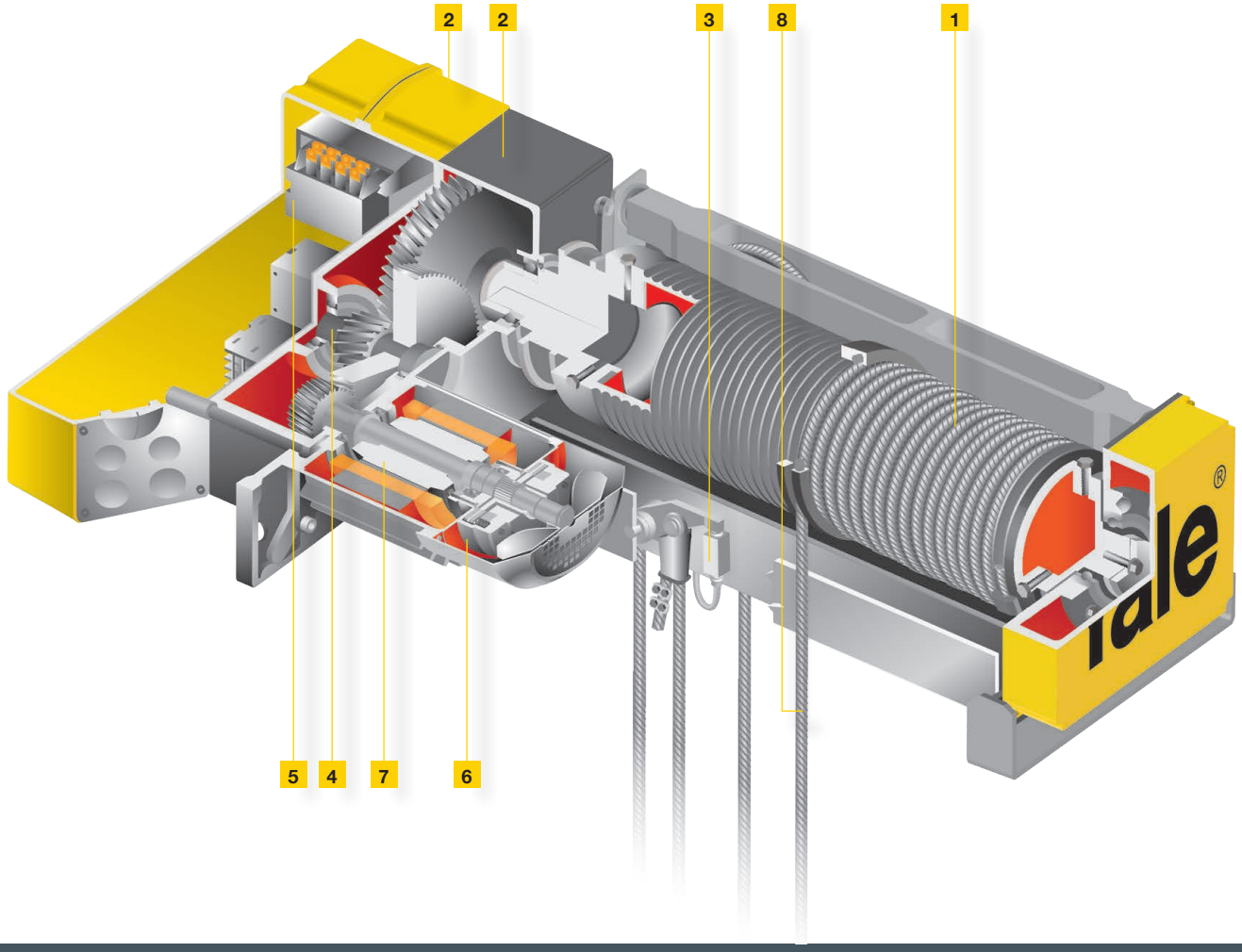


- Lifetime oil-lubricated gearbox means no oil change out is required
- Precision gearing for quiet operation
- Enclosed housing for maximum accuracy and stability

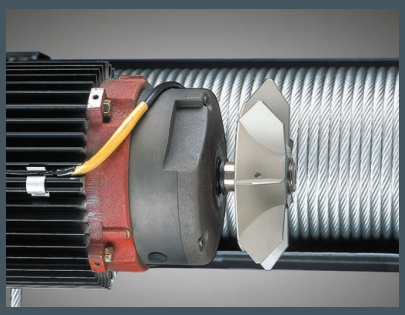
5 CONTROL PANEL



- Standard motor performance monitoring
- Inching operation is suppressed for reduced jogging
- Oversized contactors for added safety
- Standard temperature monitoring of hoist and travel motors
- UL508A control enclosure for hoist, trolley, and bridge motions



6 BRAKE



- Low-maintenance, asbestos-free brake needs no adjustment
- Oversized, heavy-duty brake for long service life
- Brake is easily accessible from the outside for ease of maintenance and inspection
- Motor management ensures low wear
- IP66 or NEMA 4/4x protection

7 MOTOR

- Specially designed motor specific to hoisting applications with high operational demands
- Classified according to FEM (ISO) with high duty cycle and switching operation frequency
- IP55 or NEMA 4/12, thermal class F
- Motor outside rope drum ensures highly efficient motor cooling and is easy to maintain
- PTC thermistors ensure reliable temperature control for slow or fast speeds
- Reliable operation, even with low voltage or heavy loads

8 BOTTOM BLOCK

- Optimal drum-to-sheave diameter ratio for reduced rope wear
- Wire rope is flexible and durable for long life
- Fine machining of drum reduces wear on rope and sheaves
- Drum is easily accessible for rope maintenance or replacement
- Robust bottom hook block with low headroom design for use in tight spaces