



O'BRIEN

INSTALLATIONS LTD.

HELP
FROM

above



CONTENTS

- 4** Overhead Cranes
 - Single Girder
 - Double Girder
 - Under Running
 - ZX Hoists
- 8** Budget Hoists
- 12** Custom Engineered
 - VX Hoists
- 16** Full and Semi-Gantry
- 18** Optional Accessories
- 20** Crane Runway Systems
- 22** Jib Cranes
- 24** Total Crane Maintenance, Modernization and Relocations

O'BRIEN

INSTALLATIONS LTD.

O'Brien overhead cranes meet the challenges of this rapidly changing world where only the best in their fields prosper. Our customers have exacting requirements, and we consistently provide them with high-quality products and service at competitive prices.

O'Brien Installations Ltd. has an unsurpassed history of solving customer material handling problems. We understand our customers' businesses, and we work with these businesses to help make them better.

Material handling requires a precise series of linked actions. O'Brien is unique in its ability to provide all stages of the material handling solution: *A one stop shop.*

We excel in the following areas:

CONCEPT AND PLANNING

Experienced material handling specialists meet with customers to assess requirements and provide solutions to solve both immediate and long term problems.

The work situation is thoroughly analyzed, and solutions are proposed in areas including runway structures, approaches, travel routing, load dimensions and weight forces, movement and cycle speeds, load placement, operator and employee safety requirements, industry regulation and inspection specifications. Additional planning is often required for each unique work environment.

ENGINEERED SOLUTIONS

With the right material handling solution in place, a complete plan is presented to the O'Brien Engineering Department where our engineers design the product to meet all structural limits, ensure complete performance requirements, meet safety standards and pass government inspections.

CONSTRUCTION

O'Brien has many years of experience in fabricating all sizes of overhead and jib cranes as well as runway systems. This includes products for standard installations as well as custom designs to meet the most demanding work environments and performance requirements. All work is closely supervised by the in-house engineering department.

INSTALLATION

Every installation is different. Over many years, our installation specialists have solved countless installation challenges. We work with your staff to reduce down time, ensure worker safety and accomplish a speedy return to full operating capacity.

SAFETY

Because safety is of the utmost importance, O'Brien overhead cranes and jibs meet or exceed the most rigid safety specifications.

MAINTENANCE AND MODERNIZATION

O'Brien provides unsurpassed maintenance, repair and modernization services and a full inventory of OEM parts for overhead cranes, jibs and hoists. We offer 24-hour service and fully equipped radio dispatched service trucks in Ontario, Quebec and New Brunswick.

ONE STOP

O'Brien Installations Ltd. is known for its successful designs, engineered solutions, product manufacture and installations.

RETURN ON INVESTMENT

O'Brien delivers creative, cost effective solutions that can increase cash flow and revenue growth.

O'BRIEN



SINGLE GIRDER



OVERHEAD CRANES

HIGH PERFORMANCE & UNSURPASSED QUALITY

O'Brien overhead cranes are engineered and manufactured in Stoney Creek, Ontario and Moncton, New Brunswick utilizing the latest in Street components. The world-beating **Street ZX hoist**, which incorporates the most current innovations in lifting technology, is at the heart of this range of O'Brien cranes. Our crane design concept uses sophisticated software to create the ideal solution for each application.

ZX HOIST FEATURES



SUPERIOR LOAD SAFETY

- A unique combination of features ensures extra load safety compared to other hoists.
- A hoist brake acts on the first or second gearbox shaft not on the motor shaft as is the case on most competitive hoists.
- The load remains secure even if the hoist motor is removed or if the motor shaft, motor coupling or first reduction shaft fails.

PRECISION HOIST GEARBOX WITH HARDENED AND GROUND GEARS

- All gears are immersed in oil.

ACCESSIBLE OPEN PLAN DESIGN

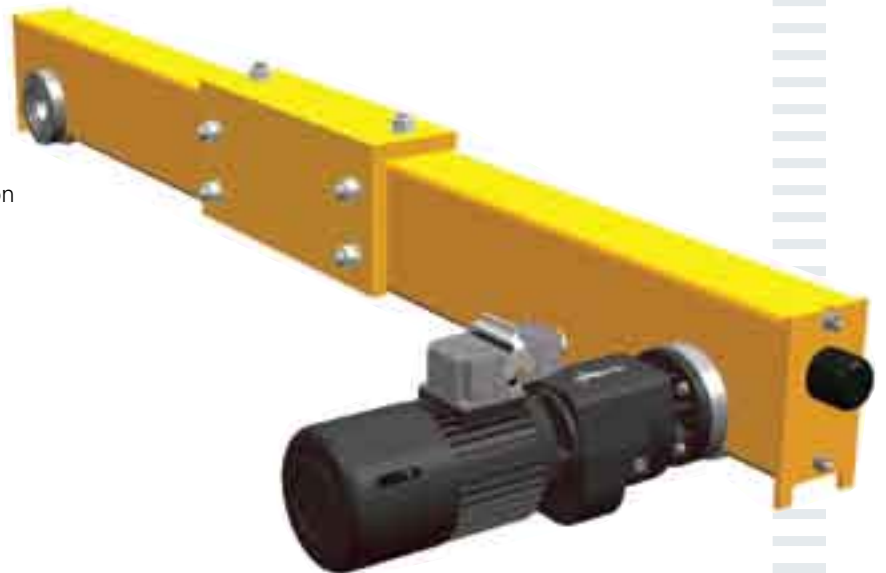
- External hoist motor optimizes cooling.
- External gearbox with inspection cover
- Open layout makes service and maintenance significantly easier compared to the competition's hoists.

SPACE SAVING DESIGN

- Low headroom hoist construction is standard on single girder O'Brien cranes.
- Optimization of available space with multiple beam to end truck construction options
- Reduced building cost

HEAVY DUTY BRIDGE TRAVEL EQUIPMENT

- Fully-enclosed design
- Dual-speed, soft-starting drives
- Automatic change over from slow to fast
- Rigid box section end trucks
- Long-life SG iron or steel wheels
- End truck machined in one setting to ensure precise geometric alignment





DOUBLE GIRDER



OVERHEAD CRANES

ZX HOIST

PATENTED TORQUE ARM, SAFE LOAD CUT-OUT DEVICE

- Measures the entire load the hoist mechanism is transmitting (not just the load on one or two ropes)
- Does not reduce available height of lift
- Actuated directly by the load, does not rely on measuring electrical current

HEAVY DUTY HOIST MOTOR

- Parallel rotor design
- Thermal protection in the motor
- Class F insulation

ELECTRICAL EQUIPMENT

- Double insulated push button pendant
- Push button durability: 1 million operations
- Pendant cable and crane wiring with quick release plug and socket connections
- Mechanical interlocks on the crane motions

EXTRA HOIST DRUM SECURITY

- Continuous shaft through the hoist drum
- Barrel retention 'snouts'
- Self-aligning bearings at each end of the drum take up deflection



OTHER STANDARD FEATURES

- Hoist overload device
- Hours-in-service meter
- Heavy-duty rope guide
- Galvanized hoist rope
- Dual speed hoisting
- Adjustable upper and lower limit switches
- Special anti-corrosion powder coating on the frame
- Safety catch on the hook



UNDER RUNNING



ELECTRIC CHAIN HOISTS WITH MANUAL OR MOTOR DRIVEN TROLLEY

One & Two Speed Hoists

Single speed standard. Optional 2-speed or variable frequency control available for precision load spotting for both hoist and trolley motions.

- Heavy duty AC spring set hoist motor brake with easy 1-step adjustment procedure
- Trolley worm gear design provides smooth stopping performance.
- Hoist gearing totally enclosed in oil-bath lubrication for long life
- Weatherproof NEMA-4X enclosed push-button control
- Paddle type upper & lower hoist travel limit switch
- Manguard hoist overload protection prevents lifting excessive loads.
- All hoists and trolleys are built in compliance to ASME/ANSI B30.16 & CSA standards, NEC electrical codes and are ISO 9001 certified.



BUDGIT HOISTS

For over 60 years, **Budgit electric chain hoists** have been designed and manufactured for tough jobs. Budgit is an industry leader in innovation, quality, and dependability. These compact, lightweight, economical hoists are built to withstand the rigors of heavy service and repeated lifting cycles. They are easy to service, require minimal maintenance, and offer excellent headroom.

HEAVY DUTY APPLICATIONS

Budgit hoists are designed for H4 duty (300 starts/hour, 30 minutes/hour on time), which meets most heavy duty industrial applications. Budgit's range of specifications and features have made it the perfect solution for thousands of hoists sold in industries such as:

- Automotive Industry
- Chemical Plants
- Pulp and Paper
- Fabricating shops/ machine shops
- Lumber Mills
- Marine
- Manufactured Housing Industry
- Foundries and Steel Mills
- Construction
- Shipping receiving and warehousing
- Textile
- Plastics

BUDGIT ALSO OFFERS SPECIAL HOISTS FOR SPECIFIC INDUSTRIES

Food Handling and Pharmaceutical

Options include clean hoist (no paint) or FDA approved epoxy enamel paint, stainless steel lower block, hooks and chain and food grade oil for gear transmission.

Corrosion Resistant / Plating Applications

Options include zinc-plated load chain and hooks, zinc-plated or anodized lower block, motor shaft seal and sealing of electrical joints.

Explosion Proof and Spark Resistant Features

Hoist options allow for use in Class 1, Div. 2, Group C & D applications and Class 2, Div.2, Group F & G. Options include NEMA 7 panel for Class 1, Div. 1 and NEMA 4/12 panel for Class 2, Div. 2, stainless steel load chain, hook & lower block and intrinsically safe relays.

Precision Handling

Budgit offers a wide range of hoisting speeds to suit your application. Optional 2-speed control (3:1 speed ratio) or variable frequency control (10:1 speed ratio) will offer precision handling control of loads.

Outdoor Service

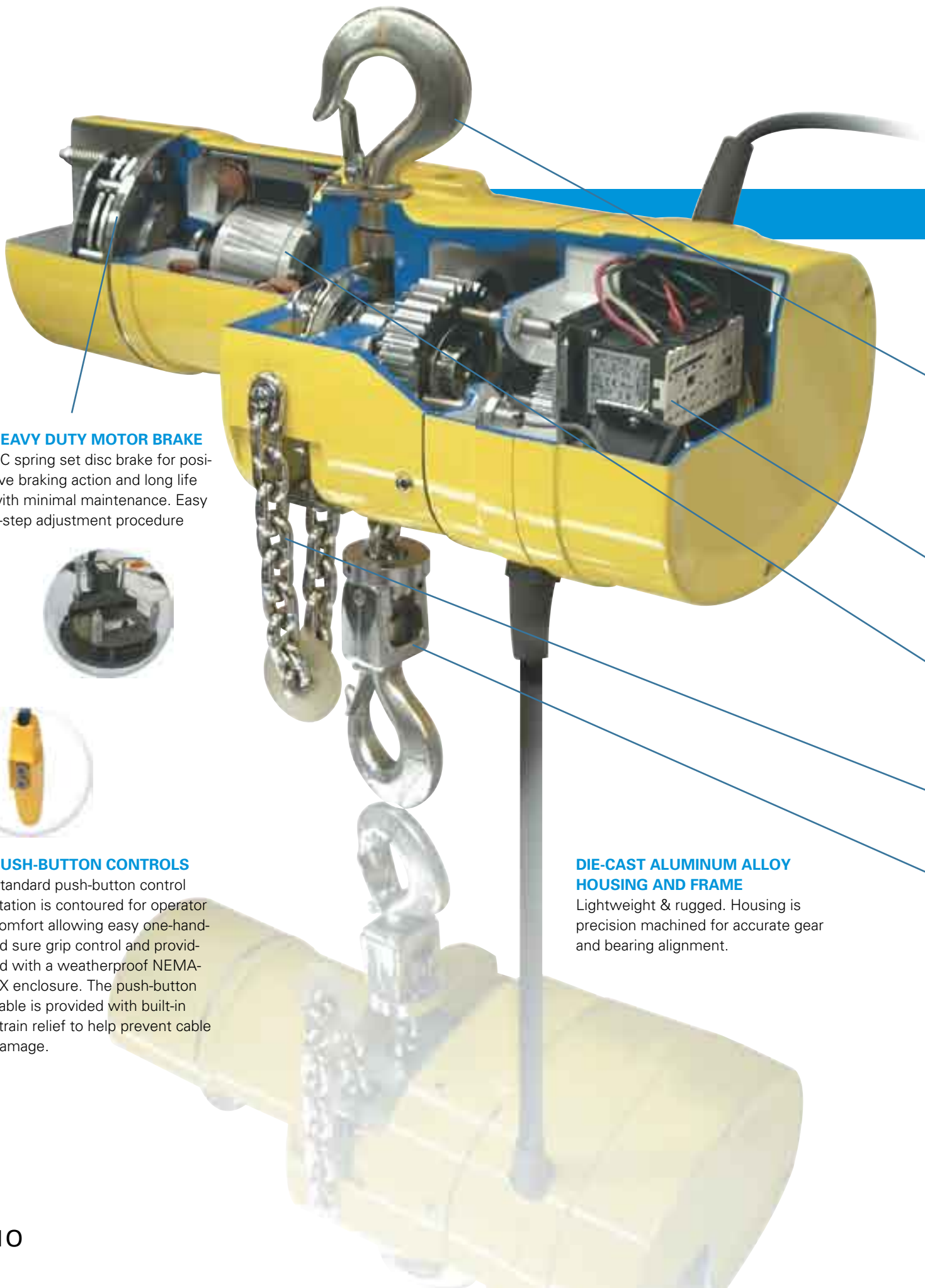
Weather resistant options such as zinc-plated load chain, water resistant covers and sealing of electrical joints make the hoist a good choice for use in outdoor applications.



THINK SAFETY, THINK BUDGIT

STANDARD SAFETY FEATURES:

- **Overload Clutch** – prevents and protects operator, hoist and supporting structure from lifting excessive loads.
- **Paddle Type Upper & Lower Limit Switch** – Automatically shuts down power to the hoist preventing lower block from two-blocking into hoist frame.
- **Safety Latches** – Spring loaded safety latches for both upper and lower hooks
- Designed to meet **ASME/ANSI B30.16, CSA, NEC** electrical codes and is **ISO 9001** certified.



HEAVY DUTY MOTOR BRAKE

AC spring set disc brake for positive braking action and long life with minimal maintenance. Easy 1-step adjustment procedure



PUSH-BUTTON CONTROLS

Standard push-button control station is contoured for operator comfort allowing easy one-handed sure grip control and provided with a weatherproof NEMA-4X enclosure. The push-button cable is provided with built-in strain relief to help prevent cable damage.

DIE-CAST ALUMINUM ALLOY HOUSING AND FRAME

Lightweight & rugged. Housing is precision machined for accurate gear and bearing alignment.

BUDGIT HOISTS

BUDGIT ELECTRIC HOIST CUTAWAY



MANGUARD OVERLOAD PROTECTION

The manguard prevents lifting loads beyond the hoist's load range, which may damage the hoist or supporting structure. Optional mechanical load brake is available.

SUSPENSION

Hook suspension permits portability of the hoist while lug suspension reduces headroom and can be used with any of our rigid-mount trolleys. New design allows easy change out of either hook or lug suspension.

GEARING

Totally enclosed, oil-bath lubricated for long life

HOIST CONTROLS

Single speed (standard) or optional two speed and variable frequency for precision handling is located under a removable cover for easy access.

HIGH-TORQUE, HEAVY DUTY HOIST MOTOR

Motors are H4 30-minute rated with class "F" insulation and include a thermal actuated switch – (TAS) embedded in the motor winding for protection.

LOAD SPROCKET & CHAIN GUIDE

Provided with a full floating chain guide that assures proper engagement of chain on load sprocket

LOWER BLOCK

Provided with a 360° rotating hook riding on thrust bearings. As standard, the hook is provided with a spring-loaded latch.

PADDLE LIMIT SWITCH

Paddle upper & lower control limit switch standard on all hoists

POWDER COAT FINISH

Provides a long lasting durable finish and added resistance to corrosive environments

CHAIN CONTAINER

Included as standard for lifts up to 20'

SPECIFICATIONS

Capacity Range

1/4 thru 3 tons

Lift

10 feet standard, additional lifts available

Lifting Speed

5 to 64 FPM

AC Power Supply

115/230 1-60 HZ; 230/460-3-60 reconnectable or 208 and 575-3-60 single voltage

Control

Push-button control voltage of 115 volts standard on all models. 24-volt control optional

Suspension

Hook and Lug



Approved by the
Canadian Standards Association

CUSTOM ENGINEERED



Some industrial processes with complex or unusual requirements require us to design cranes specifically for that application. Standard solutions don't always work when high rates of handling integration or unusual combinations of crane speeds and duty ratings are required.

In situations where there are unique safety considerations, space restrictions or lifting methods, we respond with specially-constructed cranes.





CUSTOM ENGINEERED



CUSTOMIZED LIFTING BEAMS

- Adjustable or fixed hook positions
- Single or dual lifting points
- Hooks and shackles included
- Large range of capacities



CUSTOMIZED CRANE MECHANICS

- Heavy duty M7 and M8 (C.M.A.A. class "E" and class "F")
- Extra-fast speeds
- Extra-long heights of lift
- Multi-point lifting
- Ultra-low headroom application
- Rotating hoists
- Hoist integration with grab magnets or other lifting devices
- Special rope reeving
- Special crane construction

CUSTOMIZED CRANE CONTROL SYSTEMS

- Crane automation
- Position encoding
- Condition monitoring
- Load sway prevention systems
- Infinitely variable speed control
- Electrical braking



HIGHER CAPACITIES, FASTER SPEEDS, MORE ARDUOUS DUTIES

O'Brien custom engineered cranes incorporate the highly acclaimed **Street heavy duty VX open winch hoist** on a double girder bridge. Open winch hoists provide a superior solution for both high capacity and heavy duty applications. We provide customers, who have exacting requirements, the special quality and performance of custom-engineered cranes. True vertical lift and deep scroll double rope reeving are standard.



VX HOIST FEATURES



ACCESSIBLE OPEN PLAN DESIGN

- External motor to optimize cooling
- External gearbox with inspection cover
- Open layout makes service and maintenance significantly easier than for competitive hoists

SUPERIOR LOAD SAFETY

- A unique combination of features ensures extra load safety compared to other hoists
- Hoist brake acts on the gearbox first reduction shaft
- The load remains secure even if the hoist motor is removed or if the motor shaft or motor coupling fails

HEAVY DUTY OPEN WINCH HOIST

- Open winch hoists provide the best solution for higher capacity/heavy duty lifting and handling
- Capacities up to 200 tons
- All duty classifications up to M8 (C.M.A.A. class F)
- Flexible to allow process integration

GENUINE TRUE VERTICAL LIFT

- Genuine true Vertical Lift is achieved by classic two part reeving and incorporates the following features for precision lifting:
 - *Zero hook drift throughout the full hook stroke*
 - *Double reeved hoist drum with left and right scrolling*
 - *Balanced reeving eliminates the need for rope guides*
 - *Increased tolerance of side pulling compared to single reeved hoists with rope guides*

PRECISION HOIST GEARBOX WITH HARDENED AND GROUND GEARS

- All gears immersed in oil

OTHER STANDARD FEATURES

- Hoist overload device
- Hours in service meter
- Galvanized hoist rope
- Dual speed or stepless hoist speed
- Adjustable upper and lower limit switches
- Safety catch on hook

SPACE SAVING DESIGN

- Optimization of available space with multiple beam to end truck connections

ELECTRICAL EQUIPMENT

- Double insulated push button pendant
- Push button durability: 1 million operations
- Pendant cable and crane wiring with quick release plug and socket connections
- Mechanical interlocks on the crane motions

HEAVY DUTY BRIDGE TRAVEL EQUIPMENT

- Fully enclosed design
- Dual speed soft starting drives
- Automatic change over from slow to fast
- Rigid box section end trucks
- Long-life SG iron or steel wheels
- End truck machined in one setting to ensure precise geometric alignment

HEAVY DUTY HOIST MOTOR

- Parallel rotor design
- Overheating protection in the motor
- Class F or H insulation

EXTRA ROPE AND DRUM SECURITY

- Flanged barrel to prevent rope leaving the drum
- Self-aligning bearings at each end of the drum to take up deflection



FULL AND SEMI-GANTRY

This design is ideal for outdoor applications where they provide lifting and handling facilities without the cost of a building or supporting steelwork. It is also ideal for indoor applications where existing structures are not suitable for the loads imposed by overhead cranes or where additional supporting steelwork would result in a loss of floor area.

With more than 45 years of experience with full- and semi-gantry cranes, O'Brien offers a wide range of solutions for many applications; simple, efficient and easy-to-erect steel structures developed by O'Brien engineers.

MAIN CONSTRUCTION OPTIONS

- Single girder
- Double girder

Both are available in various formats:

- Full or semi-gantry
- With or without cantilevers
- Indoor or outdoor

For smaller safe working loads, one popular option is the rail-less semi-gantry crane when a floor rail would be an obstruction or too costly. In this case the crane runs on polyurethane wheels.



OPTIONAL ACCESSORIES

O'Brien offers a wide range of optional equipment and accessories which lets us create a crane to suit your particular needs. The items below are the most commonly specified. If there is something else about your requirements, we likely have the solution.

XY-ZERO LOAD SWING PREVENTION SYSTEM

XY-Zero software totally eradicates load swing caused by travelling movements of the crane. The system calculates the predicted movement at the given height of the load, then it modifies the travel and traverse movements to eradicate swing.

TRAVEL LIMIT SWITCHES

Travel limit switches are a simple and economical way to slow or stop a crane at the end of a track. The limit switch is actuated by a striker arm on the track. Travel limit switches can be fitted to both travel and traverse motions.

NO-GO ZONES

The **Zoning Unit** uses proximity switches and a processor to program one or more rectangular no-go zones into which the hook and load cannot enter. This safety feature prevents collisions with a large machine tool or an office area.

ANTI-COLLISION EQUIPMENT

The **Anti-Collision System**, with photoelectric distance measurement, prevents accidental collision between two or more cranes on one track. The system can also automatically switch the cranes into slow-speed travel at a pre-set approach distance.

REMOTE RADIO CONTROL PUSH BUTTON OR MINI JOY-STICK

Remote radio control allows the operator to be free of the crane and to take up a position with the best view of the load and working area.

DIGITAL LOAD INDICATION

The **Load Indication System** incorporates a strain gauge to provide a digital indication of the load being lifted.

CONDITION MONITORING

The **Condition Monitoring Unit** keeps records of hoist loading with time and calculates the Load Spectrum Factor and the remaining Safe Working Period.



Remote radio controls



Limit switch



IP 55 steel electrical control cubicle



Heavy duty fan cooled trolley motor

SC SMARTLIFT AND SC SMARTDRIVE

Motor control using a digital frequency inverter to give programmable speed as well as programmable acceleration and deceleration. The crane drive and hoist characteristics can therefore be set up to suit the application.

- magnet equipment
- vacuum lifters
- under-hook attachments (spreader beams, pallet lifters)





strength

CRANE RUNWAY SYSTEMS

Which structural element in your building is most likely to fail?

Answer: the crane runway system

Crane runways are subject to vertical stress, horizontal stress, impact loads, pulling and lifting actions and thermal expansion. Runway rails slip, girders deflect and rotate, and columns deform. Of all structural elements in a plant building, crane runways are among the most susceptible to failure.

O'Brien specializes in crane runway system design and installation. With over 45 years of experience, our professionals understand the dynamics of a rigid system that must withstand a great deal of movement and flexibility.

Runway problems can be avoided. O'Brien specialists build, re-build, install and repair crane runway systems that save customers from difficult, expensive and dangerous runway breakdown.

Questions To Ask About Overhead Crane Systems

1. Has the system been designed by a qualified engineer?
2. Has the system been designed for the required duty cycle and any working environment problems?
3. Have all potential structural building problems related to the runway system been identified?
4. Has the system been designed to all applicable specifications and safety standards?
5. Does the fabricator have the necessary expertise in welding and fitting to manufacture or re-build the system?
6. Do the installation crews have the necessary expertise?

O'Brien Crane Runway Services

- sales and installations of light, medium and heavy duty systems
- fast, custom design of crane systems including free standing or column supported, top running or under running
- solutions to ceiling limitation and problem operating conditions
- designs for special span lengths
- ideal fit of overhead crane and matching runway system
- designs adapted to buildings which are not currently engineered to carry loads
- custom solutions to building limitations
- transition to and fabrication of outside runways including custom designed craneway doors
- qualified crane inspectors certify government standards are met
- extended O'Brien standards code provides strict specifications to ensure structural integrity and safety
- O'Brien Installations is certified by the Canadian Welding Bureau (CSA W47.1)
- design and installation package permits lowest possible cost to our customers



O'Brien Wall Travelling Jib Cranes provide ultra flexible handling along the length of a workshop, servicing numerous work stations and transporting material the entire length. Wall travellers are ideal second level cranes working under top level overhead cranes.

JIB CRANES

O'Brien offers one of North America's largest ranges of jib cranes. A technical data book of standard jib crane solutions from 80kg to 20,000kg capacity is available on request. Specially engineered jib cranes are produced in capacities up to 80,000kg. The two basic formats of jib cranes are column mounted and wall mounted, each of which may be equipped with chain or wire rope hoists. We offer under- and over-braced jib arms to maximize lift or travel. Column mounted jibs can be constructed for maximum slewing angles of 270 degrees or 360 degrees. We offer a variety of fixing solutions including anchor bolts and wall plates.

OPTIONAL EQUIPMENT

- Power rotate (single & dual speed)
- Rotation limit switches
- Bevelled jib ends
- Outdoor and marine solutions
- Sliding pendant on a C rail
- Hazardous area requirements





TOTAL

Crane Maintenance, Modernization and Relocations

O'Brien Installations utilizes a team of well-qualified tradesmen experienced in all aspects of lifting equipment maintenance and trouble shooting. We provide scheduled call in and emergency service on a 24-hour basis.



EXTENSIVE STOCK OF PARTS

O'Brien Installations is your one stop source for hoist and crane parts and accessories. We offer an extensive range of competitively priced parts for all makes and models of hoists and overhead bridge cranes. O'Brien Installations carries a large inventory of quality new and surplus parts, including one of the largest inventories of DEMAG spare parts in Ontario.

CRANE INSPECTIONS

We offer a complete inspection service which conforms with the Occupational Health and Safety Act and provides a preventive maintenance function as well. Our inspection services can be performed on site or brought to our facilities depending on the unit.

OPERATIONAL INSPECTION OF ALL FUNCTIONS AND SAFETY DEVICES

- Detailed visual inspection of load hooks, load chain and wire rope
- Operational testing to determine possible internal gear problems
- Check all oil levels in gearboxes.
- Remove covers to check brakes, electrical contacts, etc.
- Perform minor adjustments where required
- Complete visual inspection of each unit with detailed written description of any problem areas

The O'Brien Commitment

Losing even a single hour of production time costs you money. O'Brien Installations provides top-quality repairs, maintenance and fast equipment and parts delivery to keep you up and running.



BEFORE



AFTER



MODERNIZATION and RELOCATIONS

O'Brien Installations' modernization program will take your existing cranes and bring them up to current standards.

- Turnkey upgrades include:
- Structural modifications
 - Control upgrades
 - Safety upgrades
 - Component replacement (trolley/hoist)
 - Engineering evaluations

We make
all the right
moves!

O'Brien also manages complete crane relocations, whether its a move within an existing facility or to a new site.



O'BRIEN
CAVITY4000LBS

O'BRIEN
INSTALLATIONS LTD.

Material Handling Equipment
Industrial Doors/Dock Equipment
Sales & Service

O'Brien Installations Ltd. has been in the overhead and jib crane business for over 45 years. Based in Stoney Creek, Ontario, O'Brien is well known for its quality products, installation experience and commitment to customer satisfaction.



HEAD OFFICE

14 Garden Ave.,
Stoney Creek, ON
L8E 2Y9
Tel: (905) 662-4979
Fax: (905) 662-3214

Kitchener Line:
Tel: (519) 741-1737

ATLANTIC CANADA DIVISION

O'Brien Material Handling
30 Principale St.
Memramcook, NB
E4K 1A6
Tel: (506) 855-1525
Fax: (506) 853-9337

QUEBEC CITY OFFICE

O'Brien Installations Ltee.
1405 rue Jean-Baptiste,
bur. 114
Quebec, QB
G2E 5L1
Tel: (418) 652-1747
Fax: (418) 652-8647

www.obrieninstall.com

Some of our satisfied customers include:

ArcelorMittal, Hamilton, Ont.
CCI Thermal, Oakville, Ont.
Fabris Inc., Stoney Creek, Ont.
Gates Rubber Co., London, Ont.
Harvan Engineering, Woodstock, Ont.
John Deere Ltd., Welland, Ont.
Kubes Steel, Stoney Creek, Ont.
National Steel Car, Hamilton, Ont.
Palfinger, Niagara Falls, Ont.
Polycon Industries, Guelph, Ont.
Salit Steel, Niagara Falls, Ont.
SKD, Brampton, Ont.
Stellarc Precision Bar, Brantford, Ont.
Superior Boilers, Stoney Creek, Ont.

Member:

Canadian Door Institute
Canadian Federation of Independent Business
Crane & Hoist Service Association
Grand Valley Construction Association
Hamilton Construction Association
Hamilton Chamber of Commerce
Toronto Construction Association
Professional Engineers of Ontario

Certified by:

Canadian Welding Bureau





Material Handling Equipment
Industrial Doors/Dock Equipment
Sales & Service

www.obrieninstall.com