



GST #R103904181
 19501 - 96th Avenue
 SURREY, BC V4N 4C5

(604) 888-4442 Fax (604) 888-3028

INVOICE

NO. 13045

DATE 03/31/2013

PAGE 1 of 1

SOLD TO
 Triumph
 4004 Wesbrook Mall
 Vancouver, B.C. V6T 2A3

SHIP TO
 Triumph

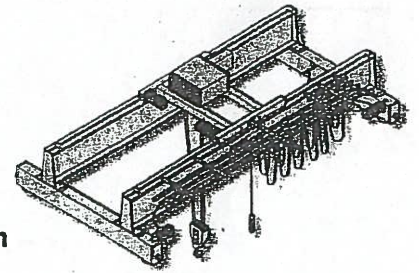
ITEM NO.	QUANTITY	UNIT	DESCRIPTION	GST	PST	UNIT PRICE	AMOUNT
			P.O. Grant Minor				
			Annual Safety Inspection Targert Hall 20/3 Tonne Norelco Crane #2610 6 March - unable to access site due to alarm failure 7 March - inspection completed				
1	30.5	hours	Labour	H2		90.00	2,745.00
2	4.0	hours	Overtime Labour	H2		135.00	540.00
3	204.0	km	Travel	H2		0.95	193.80
			Subtotal:				3,478.80
			H2 - HST 12%				
			HST				417.46

COMMENTS

Job Order No. MS-064 Terms; net 30 days

TOTAL ▶

3,896.26



19501 96th Avenue, Surrey BC, Canada, V4N 4C5
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PERIODIC INSPECTION REPORT

Date: 11 MARCH 2013				Crane Type: TOP RUNNING DOUBLE GIRDER			
Customer: UBC TRIUMF				Crane Manufacturer: NORELCO INDUSTRIES			
				Crane Serial #: 2610			
Phone: 222 7359		Contact: G. MINOR		Capacity: 20/3 tonne		Power: 460V	
Periodic Inspection: ANNUAL				Hoist Manufacturer: KONE			
Crane Location: TARGET HALL				Hoist Serial #: 282679 / 282680			
Other Equipment:							
1 = HOIST		2 = TROLLEY		3 = BRIDGE		4 = ELECTRICAL	
20 tonne		A = Acceptable X = Not Acceptable		A = Acceptable X = Not Acceptable			
1.1	Hoist Motor	x2	A	3.1	Bridge Motors	x4	A
1.2	Brake	x2	A	3.2	Brakes	x4	A
1.3	Gearbox	x2	A	3.3	Gearboxes	x4	A
1.4	Oil Level	x2	A	3.4	Oil Levels	x4	A
1.5	Wire Rope	x2	A	3.5			
1.6	Rope Drum	x2	A	3.6	Drive Wheels	x4	A
1.7	Rope Guide	x4	A	3.7			
1.8	Rope D/E	x2	A	3.8	End Trucks		A
1.9	Up. Sheave & Support		A	3.9	Drop Stops		A
1.10	Hoist Frame		A	3.10	Bumpers / End Stops		A
1.11	Hoist Block		A	3.11	Walkway		A
1.12	Sheaves		A	3.12	Limit Switch		A
1.13	Safety Latch		A	3.13	Downshop Runways		A
1.14	Load Hook		A	3.14	Downshop Rails		X
1.15	Limit Switch	x5	A	3.15	Downshop End Stops		A
2.1	Trolley Motor	x2	A	4.1	Downshop FESTOON TRACK		A
2.2	Brake	x2	A	4.2	DOWNSHOP FESTOON SYSTEM		X
2.3	Gearbox		A	4.3	Tow Arm		A
2.4	Oil Level		A	4.4	Main Disconnect		A
2.5				4.5	Bridge Panels		A
2.6	Drive Wheels	x2	A	4.6	Hoist Panel		A
2.7	Idler Wheels	x2	A	4.7	Hoist Festoon Track		A
2.8	Wheel/Beam Flg Gap		A	4.8	H.F. Trolleys		A
2.9	Drop Stops		A	4.9	H.F. Cables		A
2.10	Bumpers / End Stops		A	4.10	WEIGHT INDICATOR		A
2.11	Trolley Frame		A	4.11	WALKWAY CONTROL PANEL		A
2.12	Cam Followers		A	4.12	ROTATING HOOK		A
2.13	Limit Switch		A	4.13	P.B. Controller		A
2.14	Bridge Girder	x2	A	4.14	Pendant Cable		A
2.15	Bridge Flange / Rail		A	4.15	Direction Signs		A
2.16	Bridge End Stops		A	4.16	Capacity Plates		A
				4.17	RADIO SYSTEM		X
				4.18	FLASHING LITE		A
				4.19	FLOODLIGHTS		X

* 1 -

* 2

* 3

* 4

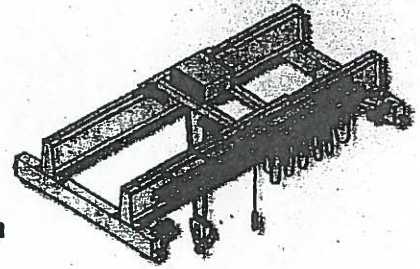
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ISO 9002 REGISTERED

Certified to CSA W47.1

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PERIODIC INSPECTION REPORT

Date: 11 MARCH 2013		Crane Type: TOP RUNNING DOUBLE GIRDER			
Customer: UBC TELUHF		Crane Manufacturer: NORDSKA INDUSTRIES			
		Crane Serial #: 2610			
Phone: 222 7359	Contact: G. MINOR	Capacity: 20/3 tonne	Power: 460V		
Periodic Inspection: ANNUAL		Hoist Manufacturer: KONE			
Crane Location: TARGET HALL		Hoist Serial #: R10118			
Other Equipment: (3 ton MONORAIL HOIST)					
1 = HOIST 2 = TROLLEY 3 ton		A = Acceptable X = Not Acceptable	3 = BRIDGE 4 = ELECTRICAL A = Acceptable X = Not Acceptable		
1.1	Hoist Motor	A	3.1	Bridge Motors	NA
1.2	Brake	A	3.2	Brakes	NA
1.3	Gearbox	A	3.3	Gearboxes	NA
1.4	Oil Level	A	3.4	Oil Levels	NA
1.5	Wire Rope	A LUBRICATED	3.5	O/P Shafts / Pinions	NA
1.6	Rope Drum	A LUBRICATED	3.6	Drive Wheels	NA
1.7	Rope Guide	A LUBRICATED	3.7	Idler Wheels	NA
1.8	Rope D/E & Support	A	3.8	End Trucks	NA
1.9	Up. Sheave & Support	A	3.9	Drop Stops	NA
1.10	Hoist Frame	A	3.10	Bumpers / End Stops	NA
1.11	Hoist Block	A	3.11	Legs / Walkway	NA
1.12	Sheaves	A	3.12	Limit Switch	NA
1.13	Safety Latch	A	3.13	Downshop Runways	NA
1.14	Load Hook	A	3.14	Downshop Rails	NA
1.15	Limit Switch	A	3.15	Downshop End Stops	NA
* 1 - 2.1	Trolley Motor	A	4.1	Downshop Power Bar	NA
2.2	Brake	A AIR GAP ADJUSTED	4.2	Power Collector	NA
2.3	Gearbox	A	4.3	Tow Arm	NA
2.4	Oil Level	A	4.4	Main Disconnect	NA
* 2 - 2.5	Pinion & Cross Shaft	A V. SLIGHT WEAR	4.5	Bridge Panel	NA
2.6	Drive Wheels	A	4.6	Hoist Panel/TROLLEY PANEL	A V. SLIGHT CABLE DAMAGE - * 3
2.7	Idler Wheels	A	4.7	Hoist Festoon Track	A
2.8	Wheel/Beam Fig Gap	A	4.8	H.F. Trolleys	A
2.9	Drop Stops	A	4.9	H.F. Cables	A
2.10	Bumpers / End Stops	A	4.10	RADIO CONTROLS	A
2.11	Trolley Frame	A	4.11		
2.12	Cam Followers	NA	4.12		
2.13	Limit Switch	NA	4.13		
2.14	Bridge Girder	NA	4.14		
2.15	Bridge Flange / Rail	NA	4.15		
2.16	Bridge End Stops	NA	4.16	Capacity Plates	A



ISO 9002 REGISTERED

Certified to CSA W47.1

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Design and Manufacture of Bridge, Jib and Gantry Cranes from 1 to 400 tons capacity · Hoists and Winches · Custom Machinery Manufacture

NORELCO CRANE SERVICES

Crane Location: <u>TARGET HALL</u>	
Crane Type: <u>3 TON MONORAIL</u>	Capacity: <u>3 TON</u>
Job Order No.: <u>TRIUMF</u>	Date: <u>11 MARCH 2013</u>

Remarks:

- 2.2 - ADJUSTED BRAKE AIR GAP TROLLEY MOTOR
- 2.5 - MONITOR VERY SLIGHT WEAR TO DRIVE PINION GEAR ON CROSS SHAFT.
- 4.6 - VERY SLIGHT EXTERIOR DAMAGE TO OUTER SHEATH OF CONTROL CABTIRE CABLE BELOW TROLLEY PANEL.
(PROBABLY SINCE INITIAL INSTALLATION)

Note: This inspection report does not apply a warranty or Guarantee of the equipment inspected, or as to the equipments future operating capabilities. It only serves as a summary of the visual inspection performed on the above date.

Inspected by: W. Smith

NORELCO CRANE SERVICES

Crane Location:	TARGET HALL	
Crane Type:	TRDG	Capacity: 20/3 TONNE
Job Order No.:	TRIUMF	Date: 11 MARCH 2013

Remarks:

- ON ARRIVAL AT SITE RUNNING TESTS PERFORMED ALL MOTORS ALL MOTIONS AND AT ALL SPEEDS.
- CHECKED AND COMPARED OUTPUT SPEEDS OF BOTH HOIST DRUMS @ INVERTER DISPLAYS.

REQUIRES FURTHER ATTENTION :-

- 1.2 - MONITOR WEAR TO HOIST BRAKE (SOUTH HOIST)
- 3.2 - BRIDGE BRAKE AIR GAP REDUCED FROM 0.58 TO 0.4 MM ON NORTH EAST BRIDGE MOTOR.
- 3.14 - a/ SOUTH RUNWAY RAIL REQUIRES REALIGNING AT JOINT APPROX 15' FROM WEST END.
b/ SOUTH RUNWAY RAIL REQUIRES REALIGNMENT AT JOINT APPROX 50' FROM EAST END. (GAP IS 3/8" WIDE).
- 4.1 - MONITOR WEAR TO INSIDE OF FESTOON TRACK.
- 4.2 - REPLACE 3 WORN TROLLEYS
- (4.2 - RETUNG 1 LOOP OF CABLE @ HOIST TOW ARM & RESECURED.)
- 4.17 - TRANSMITTER REQUIRES EMERGENCY STOP (OR NEW ENCLOSURE) ALSO NEW BATTERIES REQUIRED).
- 4.19 - THE 2 FLOODLIGHTS ARE NOT WORKING.

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Inspected by: _____

M. Smith