Begley Overhead Doors Limited

This is a spec. for woodflush counterweight door, standard lift or Low headroom for undergound parking. Recommended for high cycle operation.

Specifications: Wood Flush Overhead Sectional Counterweight System

I General

1. Related Work:

a. Steel (Plate, angle and channel) door frames: Sections (05-----)

b. Electrical power supply and disconnect: Sections (16-----)

2. Quality Assurance:

a. Welding to comply with CSA W59 standard. Welders to be Canadian Welding Bureau approved in accordance with the requirements of CSA W47. File or grind exposed welds smooth and flush without leaving grinding marks and paint with zinc based paint.

3. Submittals:

a. Submit shop drawings in accordance with section (01----)

b. Indicated materials, operating mechanisms, required clearances (and electrical connections).

4. Warranty

a. Provide a 2 year unconditional warranty on all materials and workmanship.

Products

II Materials

1. Lumber: to CSA 0141-1970, yard lumber, S4S, (C grade or better) (Economy grade exterior grade softwood to AWMAC, Division 400).

2. Plywood: exterior grade Fir Plywood creozone laminate, interior grade Marandie or Launa mahogany BS1 BS 1455. *Spec note: Use 2.1.2 for facing of flush doors.*

3. Finish paint: Two coats of high gloss oil base paint to CGSB1-GP-59M, (----) colour as selected.

4. Nails and staples: to CSA B111-1974, galvanized finish.

5. Adhesive: to CSA 0122 series - M1977.

6. Doors: (Flush panel doors constructed of lumber core framing 32 mm (1-1/4") thick plywood faces glued and stapled to both sides of overall 44 mm (1-3/4") thickness. (Stile and rail panel doors constructed of lumber framing 32 mm (1-1/4") thick plywood panels assembled using mortise and tenon joinery, glued and stapled to framing.) Exposed surfaces sanded smooth before painting.

III Hardware

1. Track: (low) headroom or standard lift 76mm (3") galvanized steel angle mounted, 2.6mm (.090") gauge for counterweight lifting, including ancillary hardware items.

2. Rollers: 76mm (3") super duty steel rollers c/w sealed roller bearings.

3. Roller brackets: Minimum 2.5mm (.098") gauge galvanized steel, through-bolt construction.

4. Hinges: heavy duty Collier or equal 3.1 mm (.120") gauge galvanized steel, through-bolt construction.

5. Truss bas: 64mm (2-1/2") high x 51mm (2") wide heavy 1.2 mm (.047") gauge galvanized steel, through-bolt construction.

6. Counterweight: Begley counterweight system consisting of a series of cast iron hinge weights protected with rust resistent black paint, balanced to weight of door, and attached to cable drum for (ceiling) (wall) installation. Counterweight

hinge bolts are 11mm (7/16") diameter x 168 mm (6-5/8") long medium carbon heat treated steel with yield strength of 551,176 kp (80,000 psi). Complete with 25mm (1") diameter solid steel shaft with 6mm (1/4") keyways full width of door. Morse flange type roller ball bearings with dust-proof seal and grease nipples, 16,754 kp (2,430 psi) load, 2400 rpm and 5 mm (3/16") diameter aircraft cable with 1,905 kg (4,200 lbs.) nominal breaking strength.

7. Double contact extruded neoprene weatherstripping for door sill section, full width.

8. Finish ferrous hardware items with minimum zinc coating of 300 g/m2 (10

oz./sq.ft.) to CSA G164-1965 (R1972).

IV Electrical Operators

1. DC "Whisper" Drive Operator with Wall Mount Control Panel

The most durable trouble-free operator is our Whisper trolley drive with wall mount control panel installed on wall near overhead door . The main advantages of the wall mount panel (mounted at eye level) is that the controls do not suffer from damaging vibrations as they would if chassis mounted. When wall mounted the panel allows lots of space for additional equipment as well as being safe and convenient for technicians to work on future changes or up grades. Operator is very quiet, suitable for overhead door conditions under building suites.

- Whisper DC drive operator, 208/600 volt, three phase, 3/4 h.p. motor
- Wall Mounted, Nema 4 Control Panel & all controls
- PLC Programmable Controller
- Variable Speed DC Whisper Drive Controller
- Planetary Gear Head Drive System Technology
- Soft Start / Soft Stop / Cycle Counter
- Variable Voltage System
- Power Failure / Default to Open Technology only with Battery Back Up Option
- Emergency Manual Release Arm from Door
- Direct Drive Motor Head assembly, #40 HD Chain, Cast Traveller
- Load sensing, operator will reverse when contacting an object.

2. Remote push button stations: (surface) mounted, in (1) location, with, "Open-Stop-Close" push buttons.

3. Magnetic loop: buried in concrete floor on interior side of door. First loop 15' - 20' away from door, second loop buried 18" away from door to prevent door from closing on top of vehicle.

4. When entrance to underground parking is at grade and void of heating cables a safety magnetic loop should be installed 4' - 5' away from interior face of door, when door is open safety loop will reset timer or cause door to reopen, if door is closing.

5. Motion detector mounted above overhead door on concrete header which will identify cars as they approach the overhead door. When detector activates, timer will reset, or if door is closing door will reopen allowing vehicle to enter the underground. When door is fully closed detector becomes inactive.

6. Safety through beam sensors (sending and receiving units) designed to identify pedestrians or vehicles travelling through opening. Typically installed on interior

side of opening.

7. Door speed: Variable

8. Control transformer for 24 volt AC control voltage.

9. Mounting brackets: galvanized steed, size and gauge to suit conditions.

10. Overhead door can be opened from exterior by keys, card system, radio control or by others.

V. Installation

1. Install doors and equipment in frame prepared by others.

2. Install electrical motor, controller units, pushbutton stations, relays and other electrical equipment required for door operation.

3. Installation includes low voltage electrical wiring only. Power supply located near door opening, supplied by others.

4. Adjust operable parts for correct function.

5. Adjust weatherstripping to form a weathertight seal.