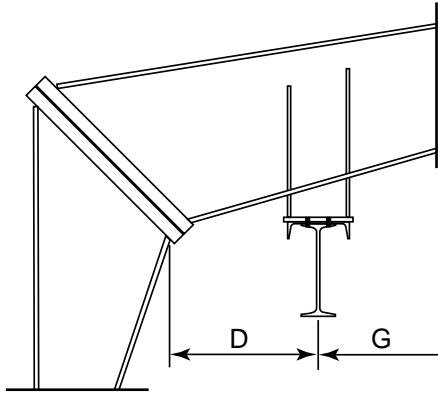


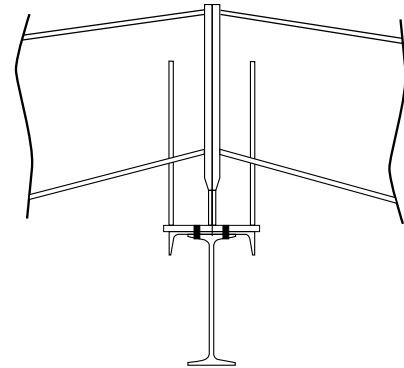


CRANE INFORMATION

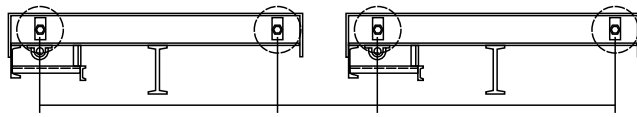
UNDER RUNNING/MONORAIL CRANE DESIGN INFORMATION



Underrunning



Monorail



Detail of end truck

MATERIALS PROVIDED BY WHIRLWIND BUILDING SYSTEMS

Y N

- Design for crane loads
- Brackets or auxiliary columns
- Runway beam
- Crane stops

Crane I.D. (A, B, C,...)

- Information provided / confirmed by Customer
 - Information assumed by WHIRLWIND from KRANCO data
 - Quantity of cranes _____
 - Crane type: _____
 - Rated capacity _____ tons
 - CMAA Service Classification: _____
 - Operation control type: _____
 - Bridge weight: _____ lbs.
 - Hoist and trolley weight: _____ lbs.
 - Maximum wheel load w/o impact: _____ lbs.
 - Bumper type: (hydraulic/rubbers/spring) _____
 - Bumper stroke: _____ in.
 - Bridge travel speed: _____ fpm.
 - Crane end stop force: _____ lbs.

Information provided / confirmed by Customer

Information assumed by WHIRLWIND from KRANCO

- Length of runway _____ ft-in.
- Number of wheels per end truck: _____
- Adjacent crane I.D.: _____
- Cranes in the same bay at the same time: Yes No
- A Wheelbase: _____ ft-in.
- B Center-to-center of adj. crane wheel: _____ ft-in.
- D Min. side clear distance from center of beams _____ ft-in.
- G Center-to-center of runway: _____ ft-in.

CRANE DATA

Assumed information taken from KRANCO Engineering Data Catalog. If actual crane data is in excess of assumed data, building is subject to a design and price review.

NOTES



CRANE INFORMATION SHEET

CMAA CRANE SERVICE CLASSIFICATIONS

1. Service classes have been established to enable the buyer to specify the most economical carrier (trolley) or crane for the particular installation. To determine proper service classification of equipment, it should be noted that there are three possible basic modes of operation to be considered. They are crane travel, carrier (trolley) travel and hoist travel. Specific requirements are shown for these components where design is influenced by classification. All classes of cranes are affected by the operating conditions; so for the purpose of these definitions, it is assumed that the crane will be operating in normal ambient temperatures (0° to 100°F) and normal atmospheric conditions (free from excessive dust, moisture and corrosive fumes).
2. **Class A**
This class is further divided into two subclasses due to the nature of the loads to be handled.
 - 2.1 **Class A1 (Standby Service)**
This service class covers cranes used in installations such as power houses, public utilities, turbine rooms, motor rooms and transformer stations, where precise handling of valuable machinery at slow speeds with long idle period between lifts is required. Capacity loads may be handled for initial installation of machinery and for infrequent maintenance.
 - 2.2 **Class A2 (Infrequent Use)**
These cranes will be used in installations such as small maintenance shops, pump rooms, testing laboratories, and similar operations where loads are relatively light, the speeds are slow, and a low degree of control accuracy is required. The loads may vary anywhere from no load to full capacity with a frequency of a few lifts per day or month.
3. **Class B (Light Service)**
This service covers cranes such as those used in repair shops, light assembly operations, service buildings, light warehousing, etc., where service requirements are light and the speed is slow. Loads may vary from no load to full-rated load with an average load of 50% of capacity with 2 to 5 lifts per hour averaging 15 feet, with no more than 50% of the lifts at rated capacity.
4. **Class C (Moderate Service)**
This service covers cranes such as those used in machine shops, paper mill machine rooms, etc., where the service requirements are moderate. In this type of service the crane will handle loads which average 50% of the rated capacity with 5 to 10 lifts per hour and averaging 15 feet, with no more than 50% of the lifts at rated capacity.
5. **Class D (Heavy Duty)**
This service covers cranes, usually cab-operated, such as those used in heavy machine shops, foundries, fabricating plants, steel warehouses, lumber mills, etc., and standard duty bucket-and-magnet operation where heavy duty production is required but with no specific cycle of operation. Loads approaching 50% of the rated capacity will be handled constantly during the working period. High speeds are desirable for this type of service with 10 to 20 lifts per hour averaging 15 feet, with no more than 65% of the lifts at rated capacity.
6. **Class E and F (Severe Duty and Steel Mill Service)**
Cranes in E and F classes are covered by the current issue of the Association of Iron and Steel Engineers' Standard No. 13 for Electric Overhead Traveling Cranes for Steel Mill Service.