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Products that Elevate your Business

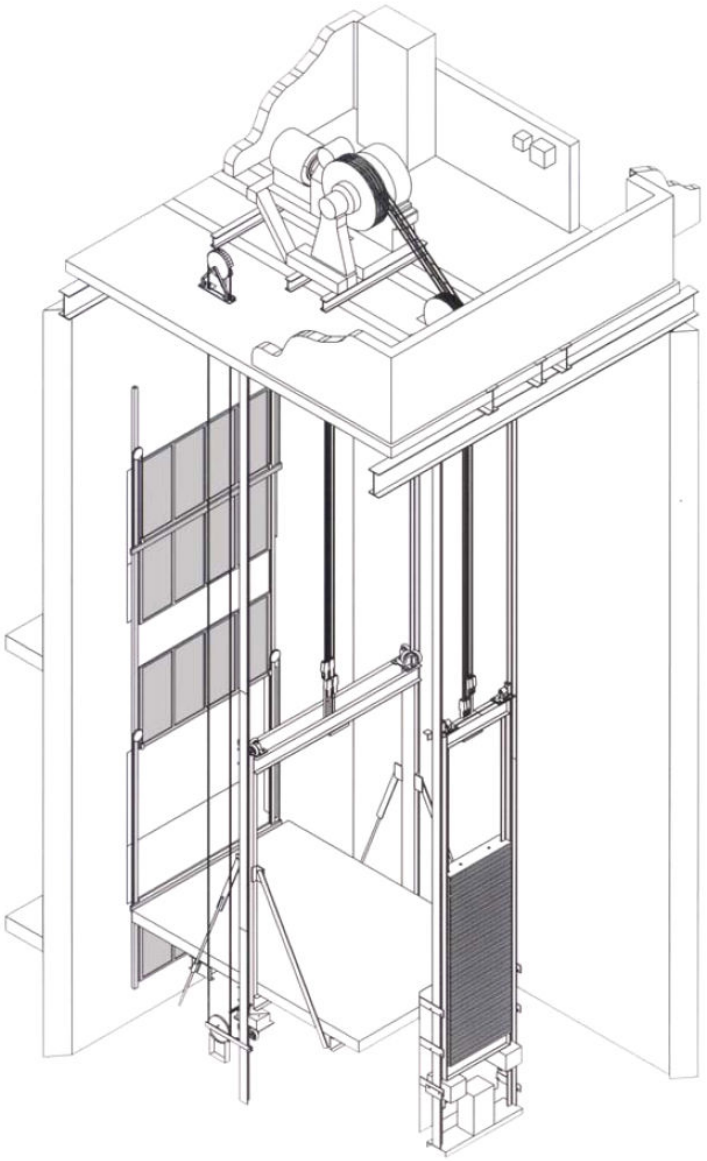
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Traction Freight

Application Summary

This design utilizes a geared machine, ropes, and counterweights instead of hydraulic equipment. The main guide rails are mounted on each side of the car and an additional pair of counterweight rails is located on one side or at the rear. The geared machine, along with the related drive equipment, is generally located above the hoistway in a penthouse machine room. In some limited situations, it can be located next to the hoistway at a lower landing. This latter arrangement is referred to as a basement traction.

- This design can accommodate both **passenger** and **freight** elevator applications.



Advantages:

- No risk of oil contamination to the ground.
- Accommodates front and rear openings in any configuration.
- Available for both low and high capacity cars.
- Nearly unlimited floor travel is possible.
- Has greater power efficiency than hydraulic applications.
- Allows significantly higher car speeds than hydraulic designs.

Disadvantages:

- The material cost is substantially higher than that of any hydraulic application.
- There are structural building considerations because all of the loading forces affect the overhead beam.
- Elevator maintenance cost is generally greater than that of hydraulic elevators.
- Cycle time for securing the material package and installing it is generally longer than that of hydraulic elevators.

Overhead Roped 1:1, Traction Freight Low Rise Geared

Cap.	Platform	Hoistway With Power Regular Type Doors	Hoistway With Power Pass Type Doors	Max FPM	Pit Depth	Front (F) Rear (R)	Over-head	Clear Inside With Single Section	Clear Inside With Two Section	Door Width and Height
4000	7'-0" x 8'-0"	9'-2" x 8'-8"	9'-2" x 8'-9 ¾"	350	5'-2"	F	13'-0"	6'-8" x 7'-7"	6'-8" x 7'-4 ½"	6'-8" x 8'-0"
4000	7'-0" x 8'-0"	9'-2" x 8'-10"	9'-2" x 9'-1 ½"	350	5'-2"	F/R	13'-0"	6'-8" x 7'-6"	6'-8" x 7'-1"	6'-8" x 8'-0"
5000	8'-0" x 9'-0"	10'-2" x 9'-8"	10'-2" x 9'-9 ¾"	350	5'-2"	F	13'-0"	7'-8" x 8'-7"	7'-8" x 8'-4 ½"	7'-8" x 8'-0"
5000	8'-0" x 9'-0"	10'-2" x 9'-10"	10'-2" x 10'-1 ½"	350	5'-2"	F/R	13'-0"	7'-8" x 8'-6"	7'-8" x 8'-1"	7'-8" x 8'-0"
6000	10'-4" x 10'-0"	12'-6" x 10'-8"	12'-6" x 10'-9 ¾"	350	5'-2"	F	13'-0"	10'-0" x 9'-7"	10'-0" x 9'-4 ½"	10'-0" x 8'-0"
6000	10'-4" x 10'-0"	12'-6" x 10'-10"	12'-6" x 11'-1 ½"	350	5'-2"	F/R	13'-0"	10'-0" x 9'-6"	10'-0" x 9'-1"	10'-0" x 8'-0"
8000	10'-4" x 12'-0"	12'-6" x 12'-8"	12'-6" x 12'-9 ¾"	300	5'-2"	F	13'-0"	10'-0" x 11'-7"	10'-0" x 11'-4 ½"	10'-0" x 8'-0"
8000	10'-4" x 12'-0"	12'-6" x 12'-10"	12'-6" x 13'-1 ½"	300	5'-2"	F/R	13'-0"	10'-0" x 11'-6"	10'-0" x 11'-1"	10'-0" x 8'-0"
10000	10'-4" x 14'-0"	12'-6" x 14'-8"	12'-6" x 14'-9 ¾"	200	5'-2"	F	13'-0"	10'-0" x 13'-7"	10'-0" x 13'-4 ½"	10'-0" x 8'-0"
10000	10'-4" x 14'-0"	12'-6" x 14'-10"	12'-6" x 15'-1 ½"	200	5'-2"	F/R	13'-0"	10'-0" x 13'-6"	10'-0" x 13'-1"	10'-0" x 8'-0"
12000	12'-4" x 12'-0"	14'-6" x 12'-8"	14'-6" x 12'-9 ¾"	150	5'-6"	F	13'-0"	12'-0" x 11'-7"	12'-0" x 11'-4 ½"	12'-0" x 8'-0"
12000	12'-4" x 12'-0"	14'-6" x 12'-10"	14'-6" x 13'-1 ½"	150	5'-6"	F/R	13'-0"	12'-0" x 11'-6"	12'-0" x 11'-1"	12'-0" x 8'-0"
15000	12'-4" x 16'-0"	14'-6" x 16'-8"	14'-6" x 16'-9 ¾"	100	5'-6"	F	13'-0"	12'-0" x 15'-7"	12'-0" x 15'-4 ½"	12'-0" x 8'-0"
15000	12'-4" x 16'-0"	14'-6" x 16'-10"	14'-6" x 17'-1 ½"	100	5'-6"	F/R	13'-0"	12'-0" x 15'-6"	12'-0" x 15'-1"	12'-0" x 8'-0"

Speeds exceeding 200 FPM require additional overhead and pit depth; *see chart on right*. Minimum Pit depth is based on the use of spring buffers. Add 5" to pit depth if oil buffers are required or car speed exceeds 200 FPM.

Speed	Additional Overhead	Additional Pit Depth
225 FPM	6"	5"
250 FPM	7"	5"
300 FPM	8"	5"
350 FPM	9"	5"

Notes:
Overhead dimensions are based on 6 foot high car gate.
Two section car gates are not recommended for high usage installations or wide openings.
For extra high door opening requirements, or special conditions, consult your representative.

ASME A17.1 code requirements for minimum rated capacity are as follows:

Class A (General Freight Loading) – 50 lbs. per sq. ft.
Class B (Motor Vehicle Loading) – 30 lbs. per sq. ft.
Class C-1 (Industrial Truck Loading – truck carried by elevator) – 50 lbs. per sq. ft., but not less than load, including weight of truck.
Class C-2 (Industrial Truck Loading – truck is normally used for loading and unloading only, and is not usually carried by elevator) – for elevators of 20,000 lbs. capacity or less capacity shall equal the weight of the loaded truck – maximum load on platform during loading and unloading not exceed 150% of rated load.
Class C-3 (Other loading with heavy concentrations where truck is not usually used) – 50 lbs. per sq. ft., but not less than load.
Note: Square feet area of platform is determined by net inside area.

General Note:
1 lb. = 0.454 kg. $1 ft^2 = 9.29$ E-2m^2

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