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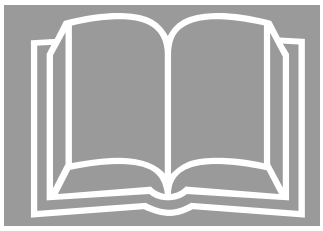

Standard Sheave Guards for Non-Otis and Older Otis Machines (Generic Sheave Guards)

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Description

This document was created to determine the possibility of using previously released or developed sheave guards on specific Otis or non-Otis machines that otherwise would not have specific sheave guards designed for them, unless contract engineered and special ordered. The illustrations and tables within this document along with recommendations to use previously developed Otis machine sheave guards, simplify the process of choosing the best fitting guards for the specific Otis or competitor applications. It is important to keep in mind that previously designed guards **will not** match the non-Otis machines **exactly** and will likely need some local adjustments and alterations of some guard components or mounting parts. In addition, note that when using previously developed sheave guards for the installation on less common equipment, it is important to follow the same installation procedures, materials, tools, and safety procedures indicated on the closest corresponding sheave guard drawings and documents, indicated in this document.

The first step in choosing a sheave guard for the particular machine is to determine the type of machine (geared or gearless) for which the sheave guard will be matched. After that, take the necessary measurements and compare them with the dimensions provided in the tables and illustrations included in this document. After completing the survey and reviewing the recommended installation guide, determine and order the closest matching sheave guard (full or pinch point version) and all the related parts (lubricator, etc.).

When choosing a sheave guard, special attention must be paid to distinctive mechanical features of the surveyed machine that may not be present on existing machines for which guards have been designed. This type of detail-oriented approach will help the field office avoid extra expenses or forecast any additional ones. For example (if the machine brake mounting bracket is located above the drive sheave: In this case, there is no need to order the full sheave guard; instead, it would suffice to order only a pinch point sheave guard). Also, the previously developed guards might not consider the blowers installed on the surveyed Otis or non-Otis machine. In a situation like that, plan to adjust the guard for the blower on site.

Each supplied sheave guard comes with specific installation instructions that should be used as the main reference guide.

Otis Pre-Engineered Sheave Guards

Table 1: Previously released Sheave Guards and Document References

Machine Type	Description	Document Reference
Gearless	Sheave Guard for Otis 70/72 Machine	Contact UNITEC
	Sheave Guard for Otis 74/77 Machine	Contact UNITEC
	Sheave Guard for Otis 130/131/139 Machine	Contact UNITEC
	Sheave Guard for Otis 155HT Machine	Contact UNITEC
	Sheave Guard for Otis 219HT Machine	Contact UNITEC
	Sheave Guard for Otis 269HT Machine	Contact UNITEC
Geared	Sheave Guard for OTIS #1 (19BT), #2 (27BT), 17CT, 22CT Machine	UT-ID 6.2.0-15
	Sheave Guard for Otis 29CT Machine	Contact UNITEC
	Sheave Guard for Otis #4/38BT Machine	Contact UNITEC
	Sheave Guard for Otis 14AT Machine	Contact UNITEC
	Sheave Guard for Westinghouse #18 Machine	Contact UNITEC
	Sheave Guard for Westinghouse #28 Machine	Contact UNITEC
	Sheave Guard for Westinghouse #38 Machine	Contact UNITEC
	Sheave Guard for Hollister -Whitney #34 Machine	UT-ID 6.1.12
	Sheave Guard for Hollister -Whitney #43/44 Machine	UT-ID 6.1.12
	Sheave Guard for Hollister -Whitney #53/54 Machine	UT-ID 6.1.12
	Sheave Guard for Hollister -Whitney #63/64	UT-ID 6.1.12
	Sheave Guard for Hollister -Whitney #74 Machine	UT-ID 6.1.12

NOTE:

(for gearless and geared machine applications)

For large modernization jobs with multiple machines of the same type, it is strongly suggested that a single sheave guard of the appropriate size is ordered and installed prior to the modernization commencing. This will allow for proper labor estimation and even special order modification requests on UNITEC for the balance of the guards ordered.

Gearless Machines

Definitions

D—Sheave Diameter

C—Maximum clearance (opening) between the machine parts including all the protruding small parts (bolts, nuts, fittings, etc.)

W—Maximum sheave width

H—Maximum distance between bedplate and top of drive sheave

L—Maximum distance between bedplate and center of drive sheave.

Take the necessary measurements and compare them with the measurements provided in the Table 2 and Figures 1, 2, and 3. The measurements must be accurately taken while considering the maximum and minimum clearances between various machine parts including all the protruding small parts (bolts, nuts, fittings, etc.).

Table 2: Measurements

Machine Type	Figure Number	D (in.)	Max "C" (in.)	Max W (in.)	Max H (in.)	Max L (in.)	Full Guard Part ID Code
Gearless	1	24–27	N/A	8.50	31	17.125	AKD3
	2, 3	24–30	9.125	N/A	31	16.00	APN1, AKV3
		30–36	10.40	N/A	36.3	18.3	AQA1, AKV4
		38	15.40	N/A	43	24	Contact UNITEC
		35.625	12.75	N/A	34.5	20	AQF1
		28.5	8.125	N/A	31	16.5	AQL1

* After comparing the measurements, pick the closest matching sheave guard, ID code, and contact UNITEC for a quote.

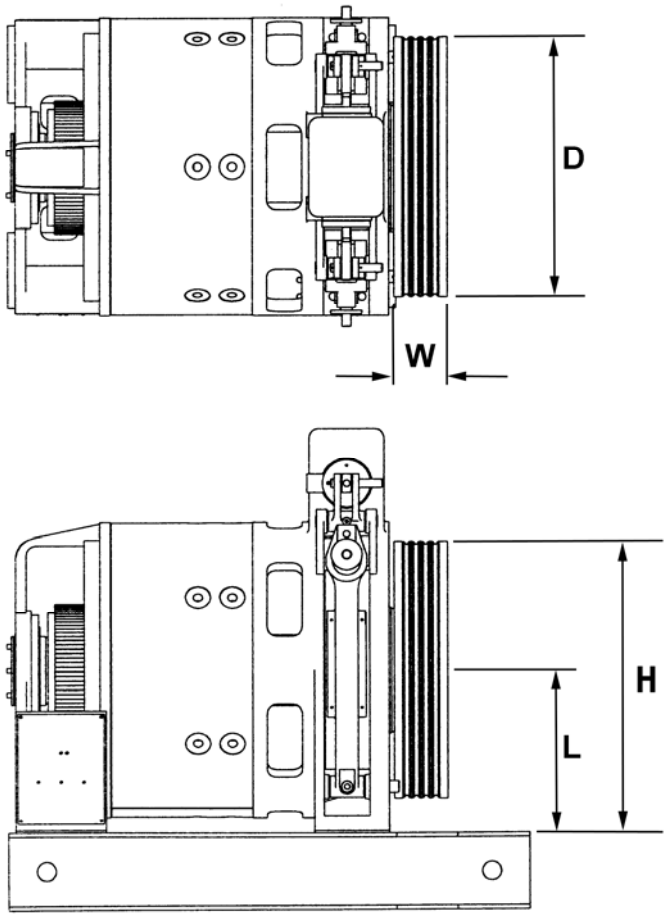

Figure 1: Gearless Machine with Overhung Sheave

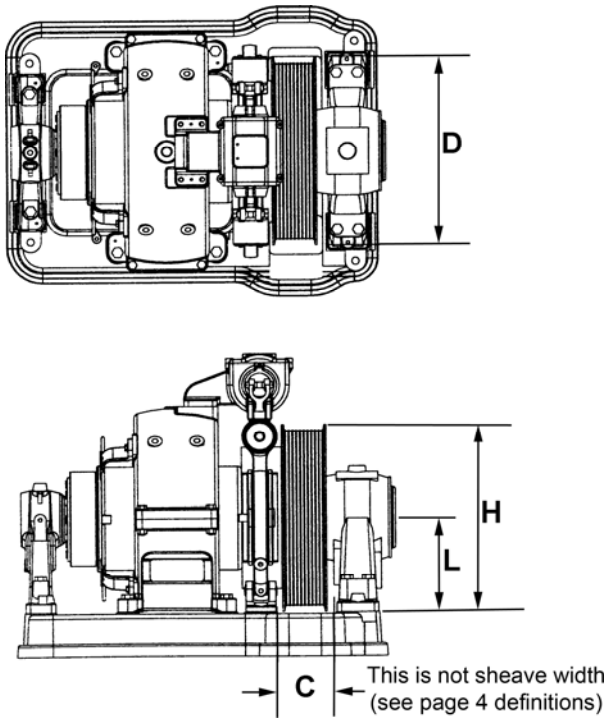

Figure 2: Gearless Machine with inboard drive sheave next to Bearing Stand

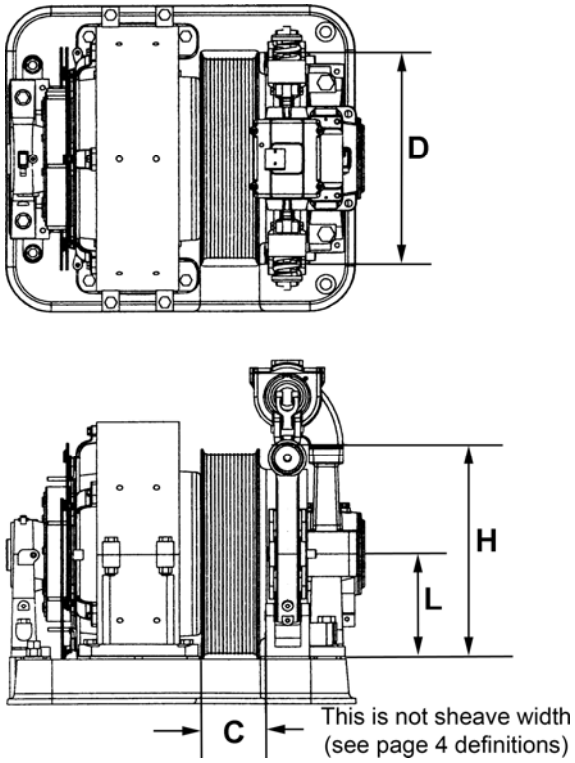

Figure 3: Gearless Machine with inboard drive sheave next to Motor

Geared Machines

Definitions

D—Sheave Diameter

W—Maximum sheave width

d1—Maximum sheave shaft diameter, gearbox side

d2—Maximum sheave shaft diameter, pedestal side

H—Maximum distance between bedplate and top of drive sheave

L—Maximum distance between bedplate and center of drive sheave

M—Minimum required distance between gearbox and pedestal

Take the necessary measurements and compare them with the measurements provided in Table 3 and Figures 4 and 5. The measurements must be accurately taken while considering the maximum and minimum clearances between various machine parts including all the protruding small parts (bolts, nuts, fittings, etc.).

Table 3: Measurements

Machine Type	Figure Number	Max "D" (in.)	Max "W" (in.)	Max "d1" (in.)	Max "d2" (in.)	Max H (in.)	Max L (in.)	Min "M" (in.)	Full Guard Part ID Code
Geared	4	32–38	8.75	15.375	N/A	49.55	30.55	N/A	ANR2
	5	32–38	8.75	11.375	5.125	49.55	30.55	11.30–12.00	ANR1
		34–40	8.75	14.00	10.50	49	28.55	12.00	ARR1
		24	4.25	6	6	30	18	7.5	APS1
		30	4.25	12.5	8.5	39	24	7.5	ARM1
		30	6	11	11	43	28	7.5	APR1
		25	5.5	7.85	3.85	28.5	15	7.0	ARH1
		28	7.75	7.85	3.85	34	17	8.75	ARE1
		30	9.25	7.85	3.85	38.25	19.75	10.5	AQZ1
		36	9.25	9.00	5.00	47	24.25	10.5	ARD1
		38	10	6.5	12.5	51	30	12.75	ARF1

* After comparing the measurements, pick the closest matching sheave guard, and contact UNITEC for a quote and lead time.

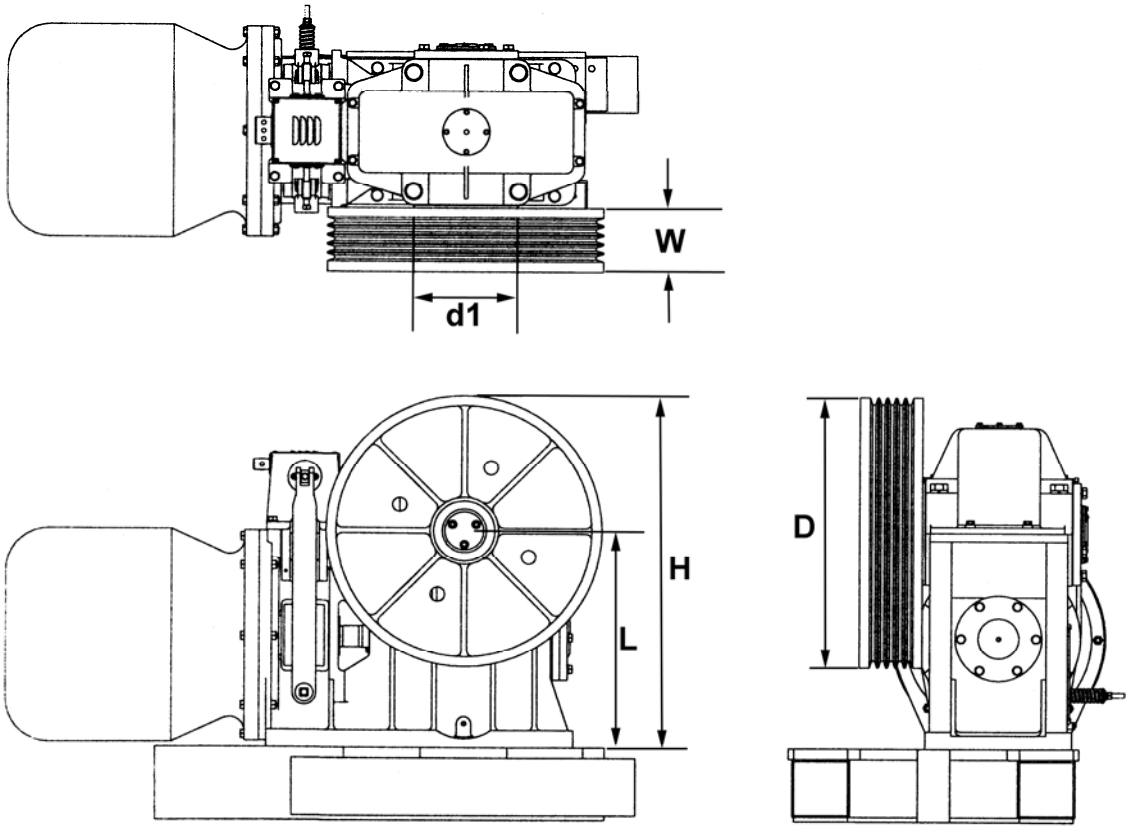

Figure 4: Geared Machine with Overhung Sheave

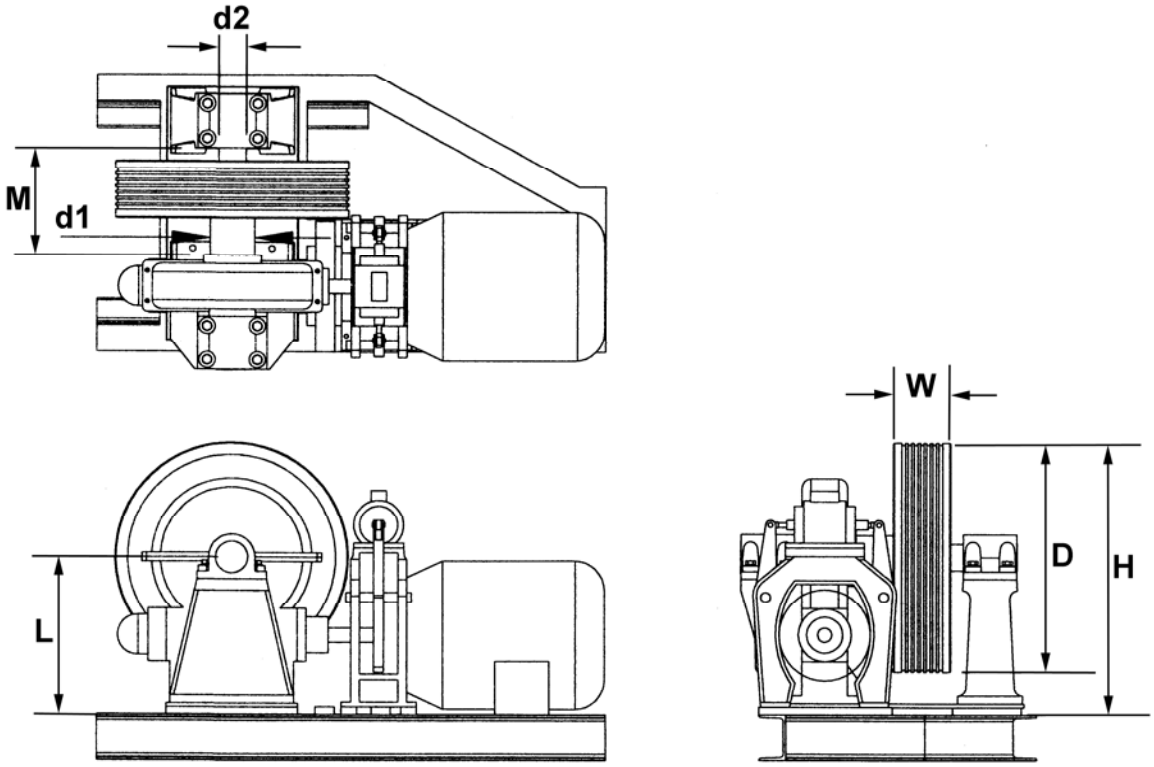

Figure 5: Geared Machine with inboard Drive Sheave