

# WINCHES



# Winches

Cyclo Transmissions Ltd the leading manufacturers of Planetary and Cycloidal speed reducers, in India, introduce the hydraulically powered and motorized Winches for lifting applications. These Winches are manufactured by sophisticated production methods and assure trouble free operation.

## Construction

These drives consist of a Planetary gear unit, with its outer casing rotating and fitted to the drum. Thus the Designer has the freedom to design the Rope and the Frame to best suit his application while having the standard transmission ratio. The unit is equipped with Hydraulic fail safe wet type multi disc or Electromagnetic brake. The brake is released hydraulically or electrically.

## Technical Features

- Compact and rigid construction
- High efficiency
- High quality design of gear unit
- Ease of maintenance
- Long service life
- Hollow input to suit Electric and Hydraulic motor
- Provision for mounting limit switch

## Applications

- Mobile cranes
- Shipboard cranes
- Constructional cranes
- Material handling equipment
- Container handling cranes
- Loading and cargo handling cranes

## Design Features

All the parts are designed and manufactured to high quality standards to perform under intended service. The cable drums are manufactured from high-grade casting. The grooves are provided on the drum to achieve correct winding of the multi-layer cable.

The mounting brackets are made from cast steel that conforms to the IS standards.

All the gear parts are manufactured from high alloy steels. The gears are case carburised, hardened and ground to provide necessary strength and wear resistance. The gear teeth are cut on precision Hobbing machine and Gear shapers and ground on Gear Grinding Machines.

Input shaft with splines or keyway is made from carbon steel and designed to withstand high torsional stresses.

All the bearings are antifriction bearings that add to the increased efficiency of the unit.

## Enquiry Data

The customer shall provide the following data while ordering the Winch drive.

### Technical Data

- |                            |   |                 |
|----------------------------|---|-----------------|
| 1)Application              | : | _____           |
| 2)Diameter of Rope drum    | : | _____           |
| 3)Length of Rope drum      | : | _____           |
| 4)Rope Diameter            | : | _____           |
| 5)Groove lead              | : | Right/Left,hand |
| 6)Rope layers              | : | _____           |
| 7)Rope Length              | : | _____           |
| 8)Transmission ratio       | : | _____           |
| 9)Maximum line pull        | : | _____           |
| 10) Maximum line speed     | : | _____           |
| 11) Dynamic braking torque | : | _____           |
| 12) Static brake torque    | : | _____           |
| 13) Brake release pressure | : | _____           |

### Drive

#### Hydraulic Motor

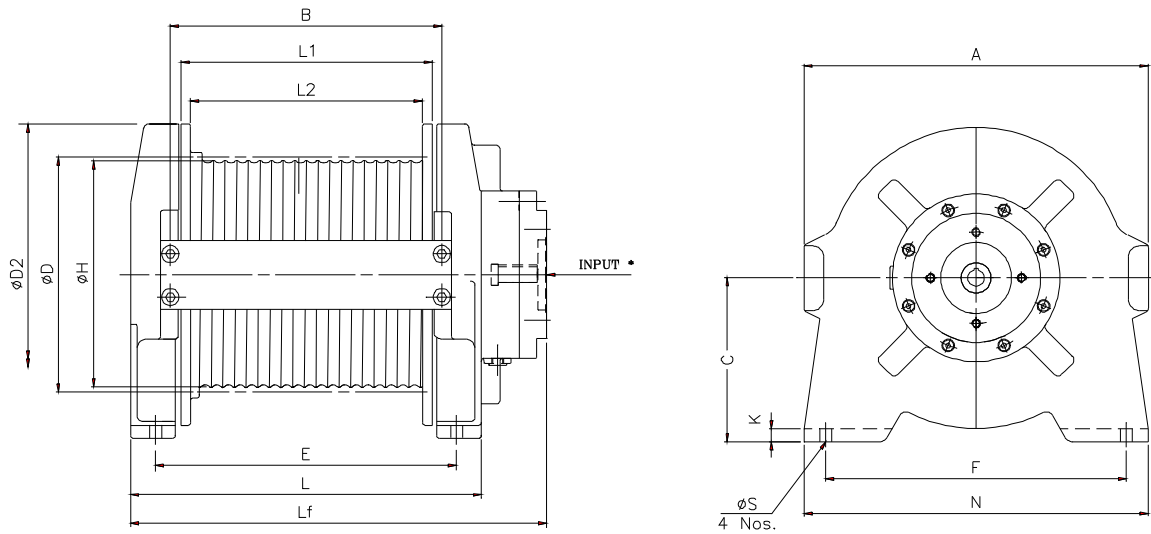
- |              |   |       |
|--------------|---|-------|
| Make         | : | _____ |
| Model        | : | _____ |
| Displacement | : | _____ |
| Pressure     | : | _____ |

#### Electric Motor

- |                 |   |       |
|-----------------|---|-------|
| Make            | : | _____ |
| Frame Size      | : | _____ |
| Power           | : | _____ |
| Speed           | : | _____ |
| Duty factor     | : | _____ |
| Starts/hr       | : | _____ |
| Start-Stop / hr | : | _____ |

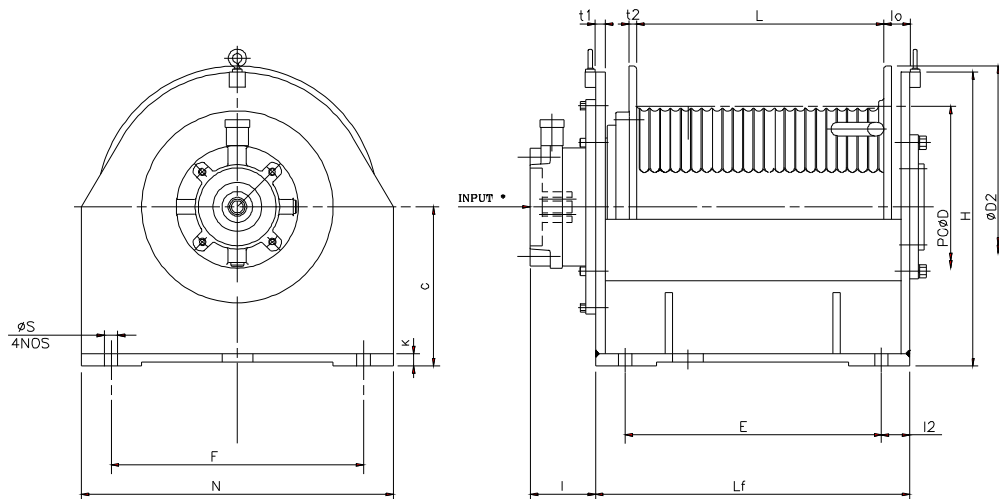
Specific to Inform :

## Dimension Sheet



MODEL	$L_f$	$L$	$E$	$L_1$	$L_2$	$N$	$F$	$A$	$B$	$\phi D$	$\phi H$	$C$	$K$	$\phi S$	$\phi D_2$	Line pull Kg	Rope Dia	Weight Kg
TLM-05	361	277	238	216	200	100	180	240	285	148	140	120	15	11	200	750	8	
TLM-08	397	321	265	262	242	300	270	320	285	200	197	150	15	14	280	1300	10	
TLM-10	484	408	350	292	270	400	350	400	318	273	266	190	20	14	350	2000	13	

\* Input Dimensions as per prime mover details and to be informed by the customer



MODEL	$L_f$	$L$	$E$	$N$	$F$	$\phi D_2$	$\phi D$	$H$	$C$	$K$	$l_o$	$t_1$	$t_2$	$\phi S$	$I$	Line pull Kg	Rope Dia	Weight Kg
TLM-25	514	399.5	419	510	412.8	460	329	490	260	19	40	16	16	22	92	4050	16	
TLM-30	610	518	419	510	413	460	329	490	260	19	33	16	16	22	110	4815	16	
TLM-40	714	630	412	630	510	560	410	600	350	30	102	16	16	26	75	5600	16	

\* Input Dimensions as per prime mover details and to be informed by the customer

## Lubrication

All parts are splash lubricated. Oil filler/breather together with drain plug and level plug are provided. Use only SAE recommended grades as gear lubricants. Automotive oils are not recommended. If the Drive operates under extreme conditions use of synthetic oil is recommended.

If the Drive operates in an environment where temperature fluctuations are predictable, choose an oil viscosity, which is recommended for that temperature, e.g., if it operates in cold weather use an oil whose pour point is less than the minimum ambient temperature, so that the oil circulates freely at all times. During hot weather use higher viscosity oil that will not thin out and lose its lubricating properties.

Special measures should be taken to protect the drives operating in direct sunlight at ambient temperature over 100°F. This protection can consist of a canopy over the drive or reflective paint on the drive. In extreme heating conditions a cooling device may be required to prevent the system temperature exceeding the maximum allowable temperature.

## Recommended oils

Ambient Temp	5°C to 40°C	30°C to 65°C	30°C to 65°C
MOBIL	Mobilgear 629	Mobilgear 630	Mobilgear 632
SHELL	Omala EP150	OmalaEP220	OmalaEP 320
TOTAL	Carter EP 150	CaterEP 220	CarterEP 320
IND. OIL	Servomesh 150	Servomesh 220	Servomesh 220

## Oil change

First oil change must be carried out after one month of operation and subsequently after every 2500 hours of working or at least every 12 months. For operating under abnormal conditions such as high temperature, severe duty, dust, moisture, oil may need to be changed more frequently. Do not mix the oil of different types even of the same make.

## Mounting

All drives should be mounted on vibration free, rigid level foundation. While mounting the drive check that the breather, oil level and drain plug are in correct positions. To ensure correct alignment of the Drive, the location diameters must be within the specified tolerances and rigidly connected to the base. The reliability and long life of the Drive requires careful installation and accurate alignment of all the accessories.

## Product Range

- Track Drives
- Worm Drives
- Creep Drives
- Planetary Drives
- Cycloidal Drives
- Wheel Drives
- Torque Limiter
- Centrifuge Drives
- Differential Drives
- SMP / SMR Drives
- Slew Drives
- Pump Drives
- Elevator Drives
- Conveyor Drives
- Custom Built Drives

For technical clarifications please contact us at



**Cyclo Transmissions Ltd.**  
At and Post Patkhal,  
Tal and Dist Satara 415 011  
Maharashtra - INDIA

Phone : ( 02162 ) 231939, 230185  
Fax : ( 02162 ) 232219, 245060  
E- mail : [marketing@cyplagear.com](mailto:marketing@cyplagear.com)  
Visit us at : [www.cyplagear.com](http://www.cyplagear.com)