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**Product Name :**  
Winch Apparatus

**Product Code :**  
LBNY-0005-14000025



#### **Description :**

Winch Apparatus pulley has a high strength cord wrapped around its periphery and terminates in a load hanger. The substantial wall bracket is to be mounted to a sturdy vertical support. A horizontal shaft running through the heart of the unit has an 'EFFORT' pulley attached to its end. This industrial Winch Apparatus has been adapted for experimental work.

The winch has a maximum working load of 300 kg and is equipped with a safety pawl and ratchet.

The student applies a set of calibrated weights to the 'LOAD' hanger and adds appropriate calibrated weights to the 'EFFORT' hanger to raise 'LOAD'.

This cord again terminates with a load hanger. Winch Apparatus cord and hanger is termed the 'LOAD'. At the centre of the winch is a drum that also has a high strength cord wrapped around its periphery.

#### **Experimental Capabilities:**

To study the behaviour of a real Winch, especially noting the characteristics of the machine with increasing load

To determine the efficiency of the Winch

To examine the safety features of the Winch

To estimate the velocity ratio.

#### **Technical Specification :**

Winch with winding drum  $\text{\O}73\text{mm}$  connected to a 62-tooth spur gear wheel by a shear pin

8tooth pinion

500Kg lifting capacity

Pawl and ratchet wheel

$\text{\O}4\text{mm}$  cord

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Ø172mm 'EFFORT' pulley

The winch is supplied with a substitute cable in the form of a heavy-duty Ø8mm nylon rope

2N 'EFFORT' hanger

5N 'LOAD' hanger.



**Laboratory Instrument India**