

TRANSMATIX

Installation, Operation And Maintenance Manual

TRANSMATIX

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BEST FOR EFFICIENT POWER TRANSMISSION

Respected Sir,

We congratulate and thank you for wisely purchasing Planetary Winch manufactured by the **TRANSMATIX (TRX)**. We are confident that this winch will provide you years of trouble free service and, for all your future requirements, you will call us for TRX Planetary winches only.

We request you to go through this manual thoroughly before installation, commissioning and for maintenance of this winch. This manual will give you important precautions to be taken by you or the people responsible for installing and maintaining this winch for getting best performance. Kindly read this manual carefully and preserve it for your future reference.

SPECIFICATIONS OF YOUR WINCH

Model:		Sr.No.:	
Line Pull:	<u>Ton</u>	Line Speed:	<u>m/min on 1st Layer</u>
Rope Diameter:	<u>mm Dia x Long</u>	No. of Layers:	
Drum Length & Dia.:	<u>mm dia x mm</u>	Centre Height:	<u>mm</u>
Input:		Mounting:	<u>Foot</u>

WARRANTY

We warrant this Winch to be of good material and workmanship and free from defects. Any part or parts which after normal use and service are upon examination proved to be defective within one year from the date of supply, will be replaced free FOR Satara, provided the unit is installed for use within the rated capacity of the winch and for the application for which it is supplied. The defective parts should be promptly returned to us at customer's cost. If so required, the winch will have to be sent back to us for necessary repairs at buyer's cost. **THIS WARRANTY DOES NOT COVER BOUGHT OUT COMPONENTS.** This warranty is limited to the cost of this Winch only. Under no circumstances do we undertake the liability for indirect or consequential loss or damage of any nature.

IF THE WINCH IS FOUND TO BE OPENED DURING WARRANTY PERIOD, AUTOMATICALLY, THIS WARRANTY STANDS CANCELLED AND YOUR CLAIM FOR DAMAGE WILL NOT BE ENTERTAINED.

For **TRANSMATIX**

Authorised Signatory

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- Delivery Conditions
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➤ **Delivery Conditions**

TRX Winch are supplied in ready to use condition except, the planetary gear box driving the winch is not pre-filled with oil. However, the winch is tested with oil filled into the gear box upto correct level, approved and then oil is drained before despatch. Routine Test Certificate of Winch with gear box is also provided with the unit.

➤ **Installation guidelines**

The TRX Winch supplied to you should be installed carefully. The following precautions should be taken.

- 1) Winch should be mounted rigidly on the base as the total reaction torque is taken by the foot. If the mounting is not rigid, it can damage the bearings, oil seals and internal gears.
- 2) Give connection to the motor through the terminal box. (The input supply should be off while giving the connections) The input supply required is 415V, 50Hz, 3 Phase. Make sure that the three phase wires are connected securely and that they do not touch each other. Make sure that you have connected the earthing to the terminal on the body of the motor provided for the same. Connect a forward /reverse switch in the circuit to change the direction of the motor. Ideally, connect a Motor Protection Circuit Breaker (MPCB) and Earth Leakage Circuit Breaker (ELCB) in the control panel for the motor for an additional electrical safety.
- 3) Make sure that the gear box attached to the winch is filled with the correct grade of oil upto the correct level. The oil grades are mentioned separately in this manual.
- 4) For outdoor installations, protect the winch from rainfall / direct sunlight, dust etc. with a suitable guard / cover.
- 5) Finally, during installation, care should be taken to check that the unit is having good access for its inspection and lubrication.
- 6) Gear Box for the winch is oil-lubricated and oil must be filled in the gear box before commissioning. All the winches with gear box have oil filling / breather plug, oil level plug and oil drain plug. The drain plug is supplied with a rubber or a copper washer. The plugs may have got loosened in the transport / handling. All the plugs should be tightened first before filling the oil, to prevent leakage. The oil should be filled from the oil-filling plug till it fills upto the oil level plug, indicating oil level.

➤ **Commissioning**

Before commissioning the winch, attach a weight of about 20 to 40 Kg to the hook. The hook supplied is a self locking type hook. Make sure that the lever on the hook has got locked so that during the movement, the weight cannot fall out from the hook. Make sure that nobody is standing below the winch or around so that in case of any malfunctioning, the person should not get hurt. Now with forward reverse switch, give the supply to the winch momentarily to check the direction of the winch (Up/Down). If it is not as desired, put off the mains supply, interchange any two phase lines & again restart the winch. Now

the direction of the winch for a particular position of the forward /reverse switch will get changed. Wind and unwind for 2-3 times to see that the winch movement is O.K. If you have made a provision for top & bottom limit switches, please check that they are working. If you do not have a provision for end limit switches, make sure that the operator has a clear & full vision of the winch and that he starts /stops the winch at right time. (Particularly, while lifting the load, if winch is not stopped, it can cause accident.) Now you can connect the desired load (within the specification of the winch) and start using the winch. Do not start the winch directly on full load during the first commissioning. Initially, let the winch run freely on no load & then gradually increase the load upto the recommended level.

➤ **Lubrication**

Lubrication plays a great role in the performance and life of any power transmission element. Care should be taken to ensure the proper lubrication of our gear box. Standard Planetary Gear Boxes are lubricated by Grease or oil depending on the temperature as under:

Grease – Models 1019, 2019, 3019 etc. are grease lubricated

Oil – Models 028, 038, 050, 060, 070, 080, 095, 110, 120 in single, double, triple & four stages are oil lubricated.

Grease Lubrication

Grease lubricated Planetary Gear Boxes are filled with Lithium base Grease, before despatch from our factory.

Oil Lubrication

In case of oil lubricated gear boxes, the gear boxes are tested with proper grade of oil in the factory. Subsequently, the oil is drained from the gear box before despatch. Hence **the oil must be filled in these gear boxes before taking any trial**. The grade of oil to be used depends on the ambient temperature. The viscosity of the oil to be used for different ambient temperatures is as under:

Ambient Temp.	- 10 to + 10° C	5 to 40° C	30 to 65° C	40 to 75° C
Viscosity ISO-VG	100	150	220	320

The following grades of oil / grease are recommended.

Lubricants

Brand	Oil		Grease
	Ambient 30 to 65° C	Ambient 40 to 75° C	
Indian Oil	SERVOMESH 220	SERVOMESH 320	Servo Gem-2
Hindustan Petroleum	GERVIL EP 220	GERVIL EP 320	Beacon-2
Bharat Petroleum	ENERGOL GRHP220	ENERGOL GRHP320	Alvania No.2
ESSO	SPARTAN EP 220	SPARTAN EP 320	Multifax-EP-2
SHELL	OMALA EP 220	OMALA EP 320	Alitho-30

The units are designed to work upto a maximum surface temperature of 85° C. If the temperature of the unit during running exceeds 85° C, please contact us.

If the winch is operating indoor and operating frequently, it is recommended to apply a thin layer of grease to the wire rope to enhance its life.

➤ **Maintenance**

The oil level in the gear box should be checked regularly to make sure that the oil is filled in the gear box upto the indicated oil level. The first oil change is recommended after 500 working hours. Subsequently, the oil change interval should be about 5000 working hours. In case the gear box is being painted, please make sure that the oil seals are protected from the paint film. Periodically, check that all the clamping bolts, foundation bolts and plugs for proper tightness. No other maintenance is required for these winches.

➤ **Ordering Spares**

The cross-sectional drawing and the part list of the unit supplied to you will be furnished to you against specific request. Your winch will have nameplate, showing its specifications as under:

TRANSMATIX		DADAR, MUMBAI - 28 TEL : 24376004	
MODEL		RATIO	
CODE NO.			
SR. NO.			

While ordering spares you have to mention the Unit Code No. and its Serial No. and the exact name and part number of the spares required so that we can supply you appropriate spares.

We thank you once again for purchasing our winch. We are sure that with all the above precautions, our winch will give you trouble free service for years to come.

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