

INTRODUCTIONS

Wiperdrive are prime Group of engineering industries, functioning more than two decades, catering the needs of almost major industries with their PRODUCT RANGE : FREEWHEEL (ONE WAY) CLUTCHES, KEYLESS TRANSMISSION ELEMENTS, TENSIONER NUTS, SPEED VARIATORS, CAM FOLLOWERS (TRACK ROLL) ETC;

Keyless Transmission Elements : Shrink fit connection of special variety. Versatile, high fatigue strength, even under alternating torsional stresses. Shaft/hub has no keyway, minimizing notch effect. Most suitable for shaft hub connection. Easy mounting and removal, wear free, perfect alignment, easily adjustable, economical.. shaft mounted gearing, gear wheels, chain sprockets, lever, cams, break drum and countless other application. Elements are available in models N7012, N7012.1, N7013.0, N7013.1, N7014, N7015, N7016, N8006, N250, N500 and Shrink Disc N4071, N4091 & split type NS4051, NS4071, NS4091.

Holdback-Centrifugal lift off sprag clutches : (equiv.to RS/BI,CLS,FXM) are used as overrunning clutches, where the shaft overruns at high speeds. These units are having individually contact with outer ring. When the lift off speed is reached the sprags automatically disengage completely from the contact surface of the outer ring and rotate contact free. Hence sprags are wear free & having long life.

Tensioner Nuts : can be instead of standard hexagonal nuts on stud OR bolt for general mechanical connections-heavy Or medium duty. Bolt tension-clamping load-by tightening multi clamping screws with standard tool-torque wrench only.

Variable Speed Units : are compact in construction much useful and advantageous where infinitely variable speed drive is required. Speed variation by hand wheel / by other mechanism in place of hand wheel / by other mechanism in place of hand wheel. Gives output ratio 6:1 Input power 0.25 to 2.2K.W. Output speed 1.5 to 1700 RPM.

Cam Followers / Stud Type Track Rollers / Track Rollers : are with standard as well as eccentric stud, cage guided ready to fit. These are equiv. To KR/CR/CF & are used for heavy loads and medium speeds.

All Wiperdrive PRODUCTS have versatile functions and are extensively and economically used in all most all industries and have gripped the manufacturing industries as a whole



One way clutch (Freewheels) : The application of clutch is for economic solution, to reduce the cost compared with separately controlled couplings/breaks, ratchet arrangements etc. in some design, Clutch is preferred to conventional solutions because of its advantages in operating safety & better automatization. No Driving Contact between inner & outer ring. While in rotation, in one direction and driving contact between inner & outer ring, which transmit torque in the other direction of rotation. These Clutches should never be dismantled at users end. To minimize critical stresses in keyway area of inner ring keyways have radius instead sharp corner, hence the keys must be chamfered on their edges.



The functions of clutches : Indexing / Feeding : is to convert motion either from a continuously rotating shaft on intermittent basis OR by converting the reciprocating linear motion of a Pneumatic / Hydraulic cylinder into an intermittent rotary motion. The rotary motion of the drive shaft is converted into an intermittent rotary motion by means of a hold pin and connecting rod attached to arm of the freewheel whose arc of index can be varied as required by adjusting slot. Especially when clutch is used as an indexing clutch, the key connections must be free from play. The best indexing application is reached with unalloyed oils with low degree of viscosity.



Overrunning : The inner ring can rotate faster than the outer ring in same direction of rotation of input and if input is stopped inner ring continues to rotate at input speed and vice versa e.g. if a large motor or turbine has to be run up to speed, by slow speed starter motor, the use of a freewheel between these elements enables the starter motor to be shut down without any mechanical involvement. If a freewheel is interposed in a drive between a gearbox / a large machine, the freewheel prevents any back drive OR damage to gearbox if at all any power failure in this function. If the direction of force / rotation changes, there will be automatic obstruction of connection between the component(s) and coupled machine.



Backstopping / Holdback : The Purpose of backstopping is to providing a return Or reverse lock. This smoothly permits rotation of the drive shaft by overrunning in one direction but immediately locks if the shaft attempts to Go on reverse, such as in inclined conveyors, elevators etc. in case of power failure OR motor is switched off, to avoid the conveyor load from running back.



Lubrication : Most clutches especially indexing and clutches with high speed overrunning are provided with unalloyed, acid free, low viscosity oil. Oil must be changed initially after about 80 operating hours & there after approximately 1500 operating hours, depending on the environment, refilling upto 1/2 level. The freewheels are manufactured in different types 1. Sprag 1.1 Standard 1.2 indexing 1.3 Centrifugal lift off 2. Roller 3. Sprag roller combined. Standard / Indexing sprag type clutches are supplied with / without bearing support / inner ring, duly oil / grease filled ready for installation, for high torque transmission. For indexing accuracy inner ring & bearing support is a must. Centrifugal lift off sprag type clutches are supplied without bearing for backstop, where high speed overrunning function required. Roller type clutches are supplied with Or without bearings, for light / medium torque transmission. Sprag Roller combined type clutches generally without bearings for backstopping & indexing such as in fishing net machinery. For mounting, clutches provided with tapped holes on face OR with flanged outer diameter with clear holes OR with lever arm, OR key slot in on face/outer diameter. Before putting into operation, please check proper lubricant level.



APPLICATIONS : in all industries. Agricultural Machines. Fertilizer spreaders Straw Presses, Feed Cutters, Tractor Distribution Gear, Plant Sprayers) Air Craft Power Transmission Unit. Generator Construction-Cement Mixtures, Barrel Mills, Drilling Rigs) Drying – Furnaces, continuous Ovens, Food – Bottling Corking & Dossing Machines. General Drives – Electric Motors, Worm Drive gearbox, Hoisting & Conveying device- Elevator Drive, Bucket Conveyor, Screw Pumps, Leather – Tanning & curing , Drying & Sewing , Machine Tools – Presses & Shapers, Packaging, Paper & Printing – Tube filling, wrapping, Labeling, Paper Production, Inking & Feed Rollers. Power Plant : Turbine Starter, Blower, Pumps & Compressors, Vacuum Pumps, Turbo Compressors, Rubber & Plastic Injection Moulding Textile- Blow Room Machinery : Double rib & Jacquard Loom, Circulat & Flush stitch machines, Wire processing Fishing Net Machinery. The specifications sheets on selected models with technical data can be provided on request.



Remark : The specifications given in our leaflets are based on continued modifications & Decades of trials taken. Some times under certain field condition there may evolve unknown parameters & conditions effecting the value of our technical data. Therefore we suggest a functional test is to be carried out if implementing for the first time / OR compare with your existing freewheel. The specifications sheets on selected models with technical data can be provided on request.

11, VASTA HOUSE, GR. FLOOR, JANMABOOMI MARG,

FORT, MUMBAI-400001, INDIA.

TEL: 91-22-22844307/22871995/22872449

FAX: 91-22-22873597/22870770

E-mail: info@wiperdrive.com, WEB SITE: www.wiperdrive.com