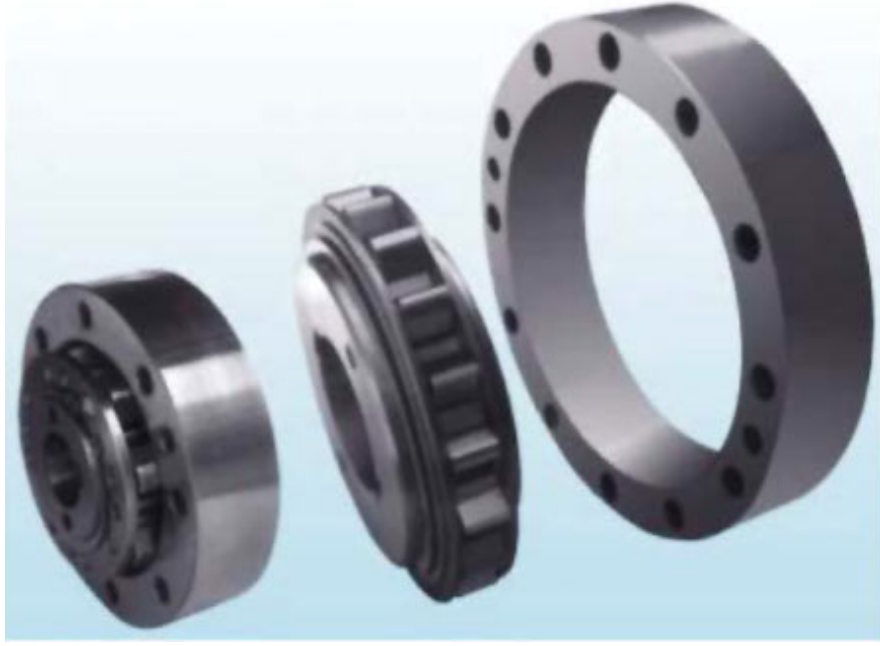


## HOLD BACK DEVICE



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;

Freewheel-one-way-Clutches (Unidirectional Couplings) leads to reduction in cost as compared with separately controlled other equipments/attachments.No driving contact between inner and outer ring in one direction of rotations and there is driving contact between inner and outer ring in the direction of rotation which transmit torque.Three type of freewheels,viz.1.Sprag1.1.standard,1.2 Indexing ,1.3 Centrifugal lift off 2. Roller,3.Cam-Roller Combined,used as Overrunning Coupling,Indexing(feeding)& Backstopping clutch.

**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.

**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 out put ratio 6:1 Input power 0.25 to 2.2K.W. Out put 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

These units do not have bearings so to ensure fault-less operations inner & outer ring have to be aligned properly concentric and square with reference to the shaft axis.For this,the inner dia"D1" of outer ring of Hold Back Device is to be firmly fitted on centering spigot of stationary part of machine /gearbox.It is advisable that inner dia"d1"should not be kept dry but be cleaned & slightly oiled.Spigot is to be machine perfectly square with reference to shaft axis and dia "D1" within "h7" limit.The height of spigot is to be kept such ,as that the centering spigot must touch NOWHERE to the cage portion.

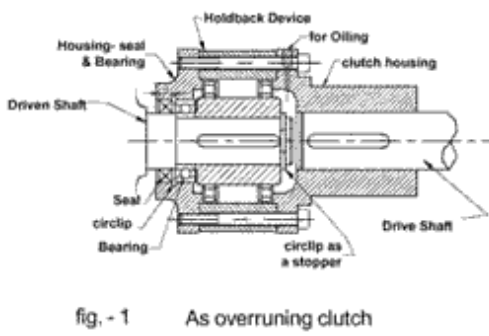


fig. - 1 As overrunning clutch

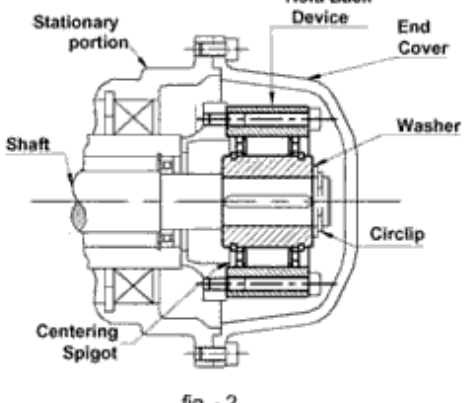


fig. - 2

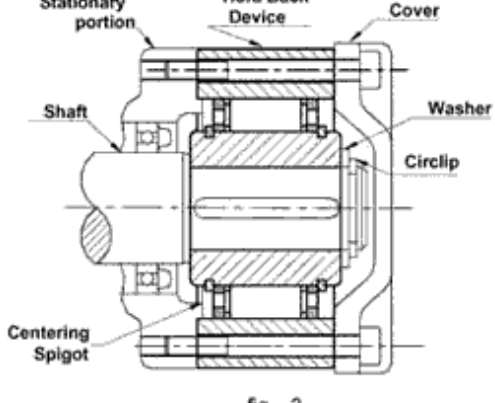


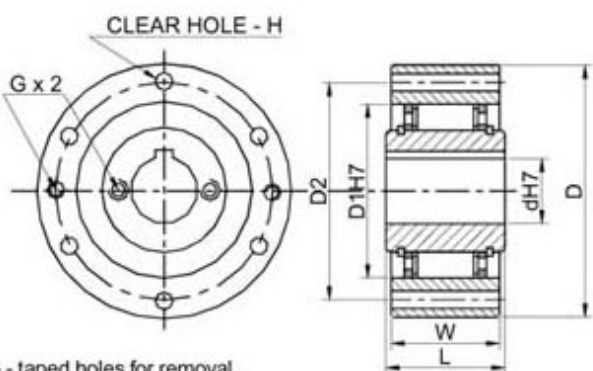
fig. - 3

To insert inner ring with sprag cage assembly,keep sprag in disengaged position by means of thin flexible wire ring OR any stretchable ring,slightly turn in freewheeling directions during entering in outer ring .While 1/3 portions of all sprags enter in the puter ring ,remove wire OR stretchable ring and insert total sprag cage assembly.

**Lubrication:**

Normally ,these units are running in disengaged position,lubrication is required to protect against corrosiononly and most probably this is covered by oil immersed lubrications,in gear boxes & other machines.Where applications differ, (fig.3) we suggest to fill 1/3 portion of unit by low viscosity hydraulic oil.

Before putting into operations proper lubrication should be provided.Hold Back Device-a versatile Products -equiv .to FXM,RS/BI,CLS seriesNormally ,these units are used as overrunning clutches,where the shaft overruns at high speed.These units are having Individually spring loaded centrifugally lift off sprags,housed in a cage by means of pins connected with rotating inner ring having driving contact with outerring .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 longlife.



\* G - taped holes for removal.



dH7	D	I	W	D1	D2	torque Nm	Lift Speed (rpm)	H	Nos	Dia
20	90	35	35	66	78	120	800	6	6.8	
25	95	35	35	70	82	180	750	6	6.8	
30	100	35	35	75	87	250	700	6	6.8	
35	110	35	35	80	96	300	625	8	6.8	
40	125	35	35	90	108	450	580	8	9	
45	130	35	35	95	112	500	550	8	9	
50	150	40	40	110	132	800	500	8	9	
60	175	60	50	125	155	1200	450	8	11	
70	190	60	50	140	165	2000	450	12	11	
80	210	70	60	160	185	3000	430	12	11	
90	230	80	70	180	206	3300	400	12	13	
95	245	80	70	180	218	4200	400	12	13	
100	270	90	80	210	240	5800	350	12	17	
120	290	90	80	210	258	9000	350	12	17	
140	310	90	80	240	278	12200	300	12	17	
185	400	105	80	310	360	16500	290	12	21	
190	420	105	80	330	380	20000	275	12	21	
220	260	105	80	360	410	27000	250	16	21	

Only Fitting/External dimensions can be made according to other equivalents,if required .  
**Other sizes on request**      **Design subject to modifications**      **All Dimensions are in m.m.**