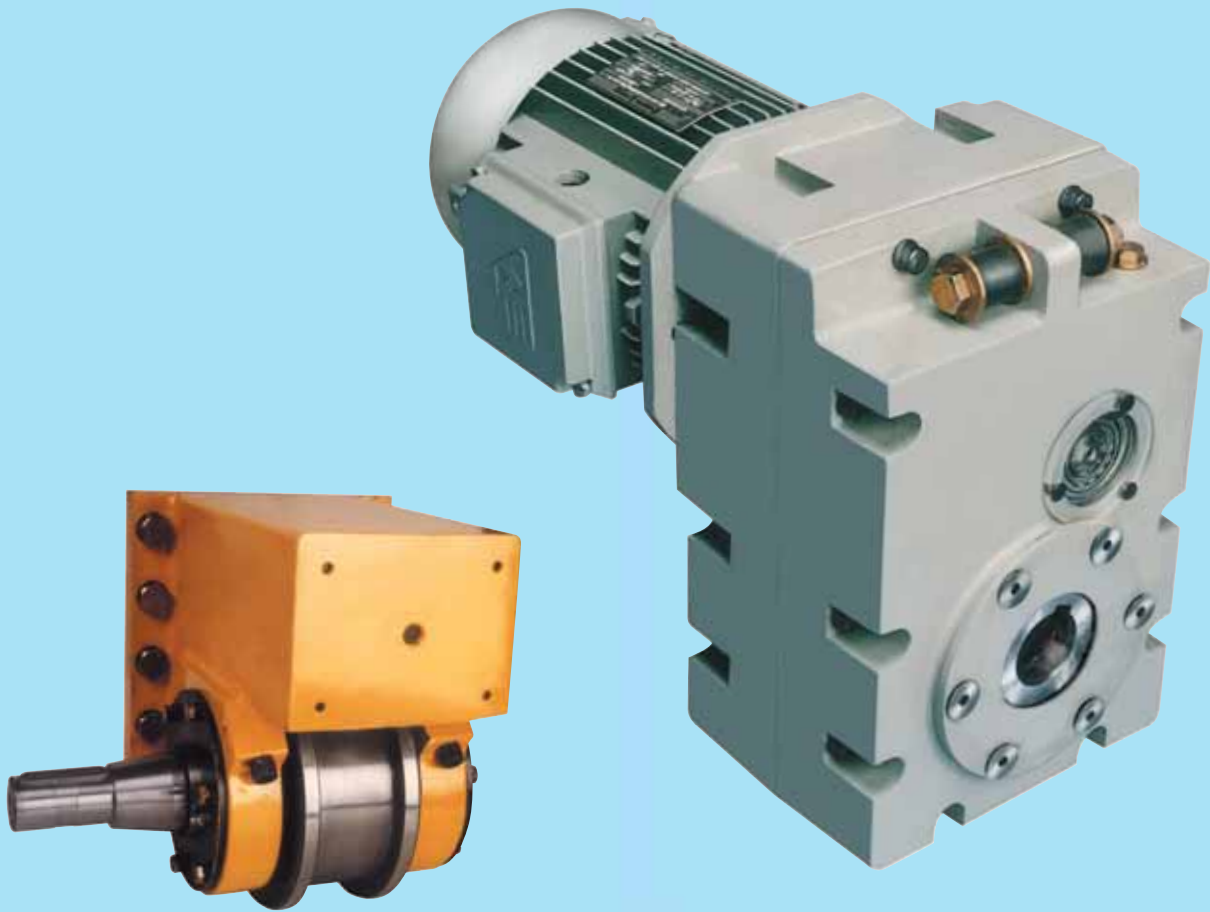


# TRAVELLING MACHINERIES & WHEEL ASSEMBLIES



# REVA

AN  
ISO 9001-2000  
COMPANY

# TRAVELLING MACHINERIES & WHEEL ASSEMBLIES

Reva offers one of the finest available selection of energy efficient Travelling Machineries with built in reliability, deriving product strength from making all the key components IN-HOUSE, optimally engineered & manufactured using the latest in designs, materials, manufacturing & quality assurance techniques. Keeping pace with technological advances in terms of modularisation & standardisation, Reva has developed a system of Travelling / Traversing and other mechanical engineering requirements divided into three independent modules viz:

1. Shaft mounted Gear Boxes in sizes TM 04, 06, 08, 10, 12, 16 to suit various motor rating & output speed requirements with added features given below.
  - The staggered & rationalized centre distances reduce the overall size apart from reduction in noise due to balancing of forces.
  - The arrangement for mounting a torque arm is an integral part of these gear machineries.
  - The free input-shaft is an option to suit any international IEC motor frame sizes or we can also provide standard crane duty brake motors as an integral part of the Travelling Machinery.
  - The output gear shaft is either hollow ground to be keyed or solid shaft to be shrink disc fitted with the required driven equipment.
2. Double flanged Rail Wheel assemblies of diameter 160mm to 500mm in R-10 series are suitable for Travelling / Traversing for varied sizes of rail and for different standardised speeds.
3. Squirrel cage motors from 0.18 to 25.0 KW are available. All squirrel cage motors are standard motors with built in disc brakes manufactured by an ISO:9001 company and having C.E marking also. The motor being supplied by us is mounted via a splined shaft simplifying its assembly & maintenance. However you have an option to use your own motor with our hollow input pinion supplied by us.
4. State of the art Variable voltage variable frequency A.C. drives are available for stepless speed control.

## MATERIAL OF CONSTRUCTION

### GEAR CASES

Gear cases are cast iron FG 200 or cast aluminium LM-6 duly shot peened, stress relieved & machined on up-to-date CNC machining centres.

### GEARS & PINIONS

Gear are designed in R-20 series. All Gears & Pinions, manufactured from low carbon alloy steels are 100% HELICAL, CASE HARDENED & PROFILE GROUND conforming to DIN-7 standard.

### SHAFTS

Output shafts of Travelling Machinery are manufactured from medium Carbon Alloy Steel & are hardened & ground. All keys are as per DIN - 6885.

### WHEELS

Wheels are manufactured from forged Medium Carbon alloy steel and are machined on up - to date CNC turning centres. The wheels are hardened to hardness of 36 - 42 HRC, axles shrunk fitted into the wheels are also hardened & ground. The Driving wheels have extended axle to fit into the hollow shaft of the travelling machinery with a key or shrink disc.

### WHEEL BLOCKS

Wheel blocks are fabricated from IS:2062 steels. These Blocks are accurately fabricated & machined after fabrication to achieve

required parallelism & perpendicularity of the wheels. An adapter plate is provided for welding of distance pieces to obtain required wheel base. The distance pieces can be either standard rolled channel iron or fabricated box. After fixing the distance piece these wheel blocks become end-carriages for cranes or can be used for any other mechanical engineering usage.

### ECCENTRIC BUSH

An eccentric bush is provided in the wheel block for the purpose of height adjustment of the wheel to the tune of 5mm. For example after fixing all the wheels if for some reason a particular wheel is not sitting properly on the rail then with the help of the eccentric bush the wheel can be lowered to be able to sit on the rail.

### BEARINGS

The moving axle in the wheel assemblies are mounted on amply rated spherical roller bearings to give maintenance free service for a long time.

### SURFACE FINISH

All Wheel Blocks & Travelling Machineries are epoxy coated suitable for both in-door & out-door application. All exposed machined components are suitably protected from corrosion.

# SELECTION OF TM MACHINERY

## SELECTION PROCEDURE

1. Select Wheel Dia as per wheel load requirement.
2. Compute motor power for the required speed.
3. Ref. chart from where with the selected wheel dia., required speed & computed motor power the TM can be directly selected as per example given in the chart.

## AN EXAMPLE



## ORDER DETAILS

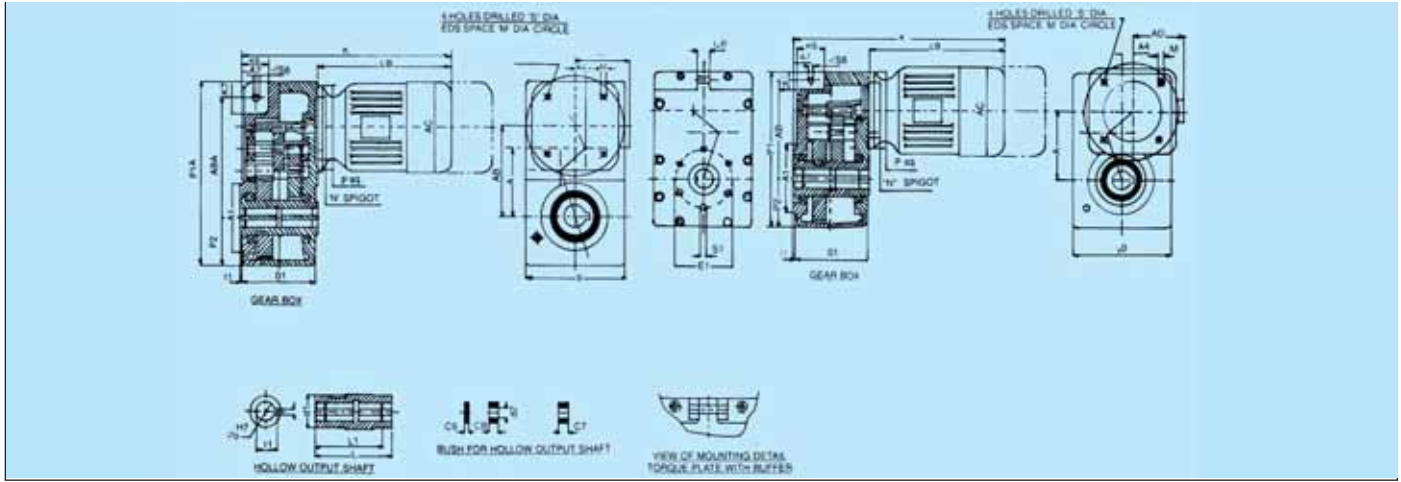
TM 10 22

1. In case you don't want motor from us please furnish us motor details, its fram-size proposed to be used by you. We will make the TM suitable for accepting your motors.
2. As given overleaf we can supply TM output, with anyone of the following version as per (ISO-496-73 & ISO/R273)

Please specify:

- Solid Shaft
- Hollow Shaft
- Output Flange.

Travelling Speed m/min										Wheel D mm.	
8	10	12.5	16	20	25	31.5	40	50	160		
10	12.5	16	20	25	31.5	40	50	63	200		
12.5	16	20	25	31.5	40	50	63	80	250		
16	20	25	31.5	40	50	63	80	100	315		
20	25	31.5	40	50	63	80	100	125	400		
25	31.5	40	50	63	80	100	125	160	500		
06 90	06 71	06 56	06 45	06 36	06 28	06 22	06 18	06 14	4 P SCR MOTOR	GEAR BOX	
0.37	0.55	0.75	0.90	1.1	1.5	1.6	2.2	3.0			
08 90	08 71	08 56	08 45	08 36	08 28	08 22	08 18	08 14			
0.8	1.0	1.1	1.5	2.0	2.55	3.2	4.0	5.5			
10 90	10 71	10 56	10 45	10.36	10 28	10 22	10 18	10 14			
1.80	2.2	3.0	3.2	4.0	5.5	7.5	8.0	12.0			
12 90	12 71	12 56	12 45	12 36	12 28	12 22	12 18	12 14			
3.7	5.0	6.3	7.5	9.3	12.0	16.0	18.0	25.0			
		06 40	06 32	06 25	06.20	06 16	06 12	06 10	6 P SR MOTOR		MOTOR POWER (KW)
		0.6	0.75	0.9	1.2	1.5	2.2	2.6			
		08 04	08 32	08 25	08 20	08 16	08 12	08 10			
		1.2	1.6	1.9	2.2	3.0	4.0	4.5			
		10 40	10 32	10 25	10 20	10 16	10 12	10 10			
		2.6	3.7	4.5	5.5	7.5	9.0	11.0			
		12 40	12 32	12 25	12 20	12 16	12 12	12 10			
		5.5	6.7	9.0	11.0	13.2	6.0	17.8			



RATING & DIMENSIONS																	
GEAR	Rating da Nm	dh7	A	AB	A1	E1	F1	s1	A4	O	O1	P1	P1A	P2	K8	C6	K
TM 06	25	30-35	110	148	118	100	4	M - 8x15	18.5	165	130	250	300	80	45	16	360,375,425
TM 08	55	40-45	140	185	140	120	4	M - 10x16	22.5	205	150	315	375	100	55	20	472,497
TM 10	125	50-55	180	231	165	140	5	M - 12x18	28	255	180	385	450	120	70	25	590,630
TM 12	250	60-70	225	290	205	175	6	M - 16x24	38	320	240	485	560	150	75	32	830,880

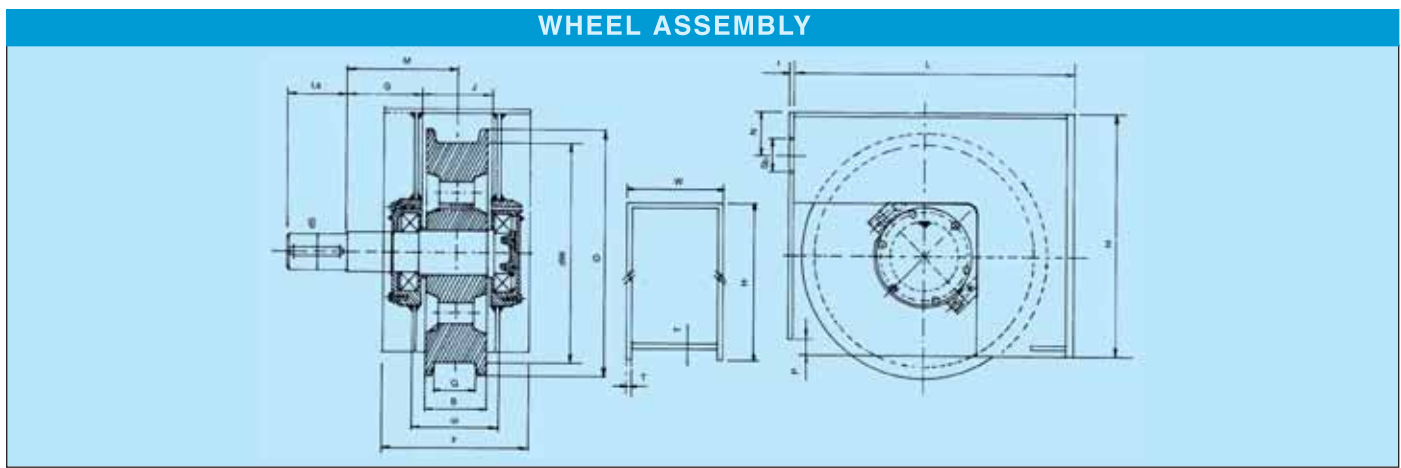
RUBBER BUFFER		
Bore	O.D	Thickness
11	30	15
13	40	15
17	50	27
20	60	27

MOTOR(SCR)									
Framesize	ShaftØ	LB	P	AC	AD	Psg	M	N	S
AD71D	Ø14	220	160	140	105	145	130	110	10
AD80	Ø19	234	200	162	116	180	165	130	12
AD90LD	Ø24	310	200	178	131	180	165	130	12
ND100LC		320		210	160				
ND112MC	Ø28	345	250	230	170	222	215	180	15
ND132SC		390							
ND132MC	Ø38	430	300	270	190	265	265	230	15
ND180MD		598							
ND180LD	Ø48	636	350	352	275	307	300	250	19

HOLLOW OUTPUT SHAFT					
d H7	d1	L	L1	t1	U
30-35	50	140	125	33.3	8,10
				43.3	
40-45	65	160	140	48.8	12,14
				53.8	
50-55	75	200	180	59.3	14,16
				64.4	
60-70	95	250	200	74.9	18,20

BUSH FOR HOLLOW OUTPUT SHAFT			
C7	C8	C9	d2
6,3	12	3	M-12
8	14	4	M-16
10	16	5	M-20
12	18	5	M-24

TORQUE PLATE					
A7	A8	A8A	K6	K7	S6
30	155	205	38	38	M12x75
35	195	245	45	45	M16x80
45	240	300	55	55	M20x100
50	300	375	70	70	M24x110



WHEEL ASSEMBLY																		
dw	D	a	B	E	F	G	Ls	L	J	ds	I	M	H	T	N	Sb	P	W
160	190	60	90	200	230	105	70	105	110	40	6	160	280	8	63	M16	15	160
200	230	80	110	200	230	130	70	130	140	55	6	200	280	8	80	M16	15	180
250	280	80	110	250	285	130	100	130	140	55	6	200	300	8	100	M16	20	225
315	355	90	120	280	320	170	100	170	160	70	6	250	350	8	125	M16	20	250
400	450	90	120	300	345	170	100	170	160	70	6	250	500	8	140	M16	20	280

WheelBase	1.6	2.0	2.5	3.15	4
WheelDia(mm)	Wheel Load in Tonnes				
160	4.5	4.5	4.5	4	3.2
200	5.6	5.6	5.1	4	3.2
250	9.5	9.1	7.22	5.73	4.5
315	14.1	11.8	9.47	7.5	5.9
400	17.9	17.9	17.0	13.5	10.6



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