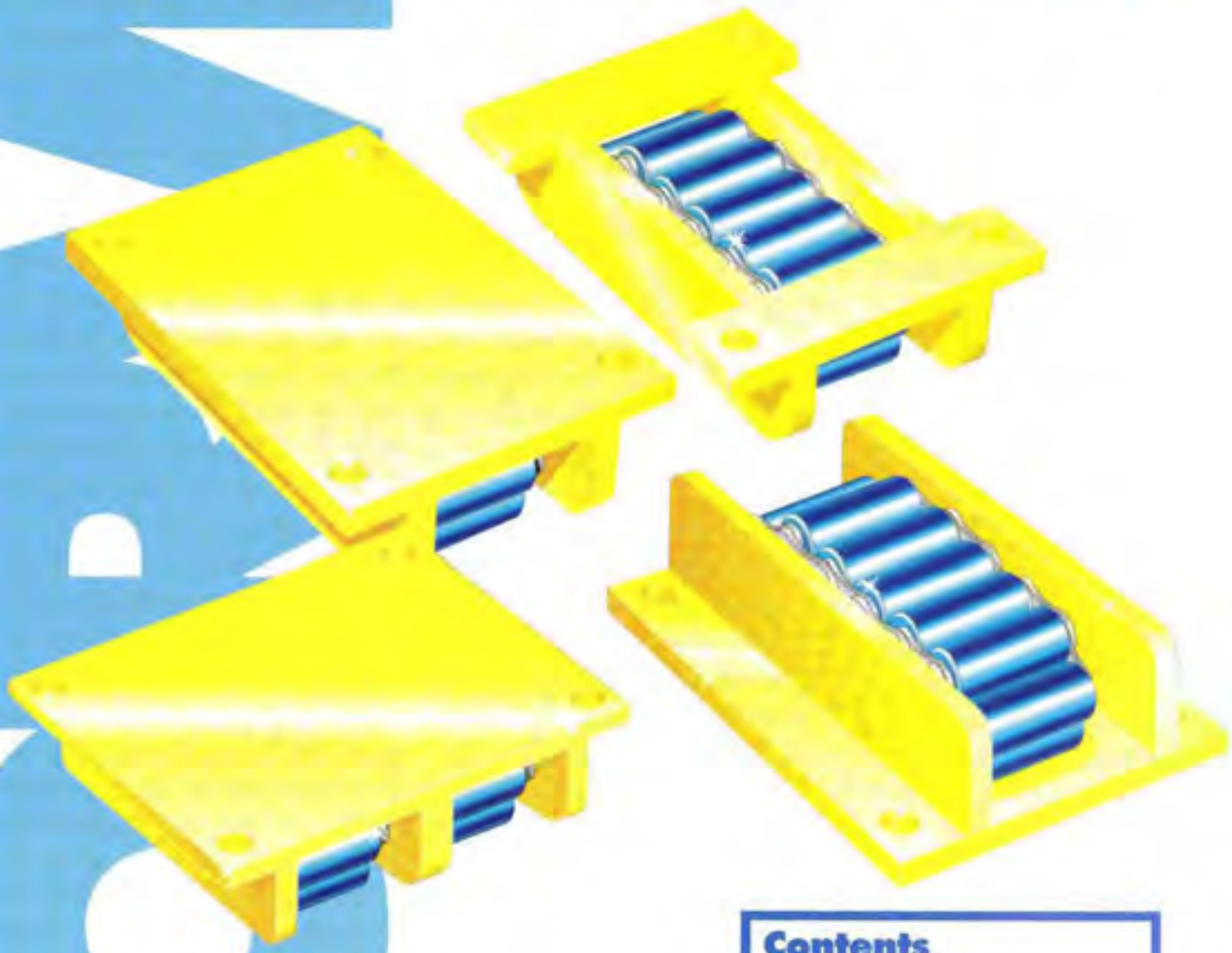
DORVIC

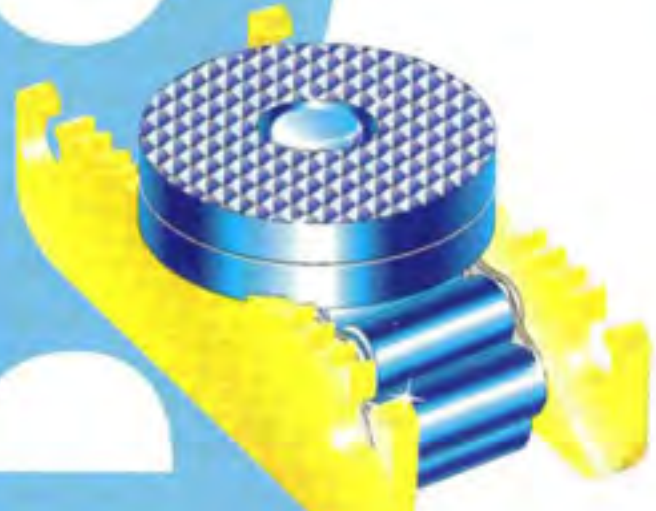
HEAVY LOAD MOVING SKATES

Caterpillar Type Roller Skates to Move Unlimited Weights

DORVIC
The name that carries Weight.

SKATES OF VARYING CAPACITIES AND DESIGNS TO MOVE ANY LOAD





Contents

GENERAL INFORMATION

Advantages

- Low cost, fast movement
- Very low coefficient of friction
- Long life construction with very little maintenance
- Low overall height (permits easy positioning under load)
- Ideal for use in confined areas where overhead lifting equipment cannot operate
- Simple to use

Typical applications

For the movement of:

- All types of machine tools
- Houses and other buildings
- Oil rig Installations
- Bridge building
- Ship building
- Cast concrete sections
- Large fabrications
- Transformers, generator and turbines
- Large diameter pipes
- Heavy doors and shields
- Used inverted as skid banks

Conditions for Safe Usage

- Make sure the surface you are running on is strong enough to support the load.
- Whenever possible run on a flat surface steel surface (plate, channel, rail, etc). The harder the surface the easier the movement.
- All skates should be placed parallel to each and to the direction of travel.
- Ensure running surface is free of debris.
- Maximum movement speed 5m/min.
- No excessive force to be applied to the Skate to reset the direction of travel, e.g. striking with heavy sledge-hammer blows.

Safety Note

- When moving any heavy items it is important to ensure that the move is carried out by fully experienced persons, and is supervised by a competent individual, who is capable of viewing the whole operation.

Care and Maintenance

- Under normal working conditions, very little maintenance is required.
- After use in a dirty environment, the Skate rollers should be cleaned with paraffin and lightly oiled.
- Used in the correct manner, Dorvic Skates will provide long and trouble free service.

All Dorvic Skates operate by the action of an endless roller chain revolving around the centre member of the body. The load is borne by the rollers and the body, thus allowing very large weights to be supported and moved. This system provides an extremely low coefficient of friction, usually between around 3% - 7% of total load.

Warranty

All skates and accessories are guaranteed for 12 months from date of delivery, against defects in materials and workmanship.

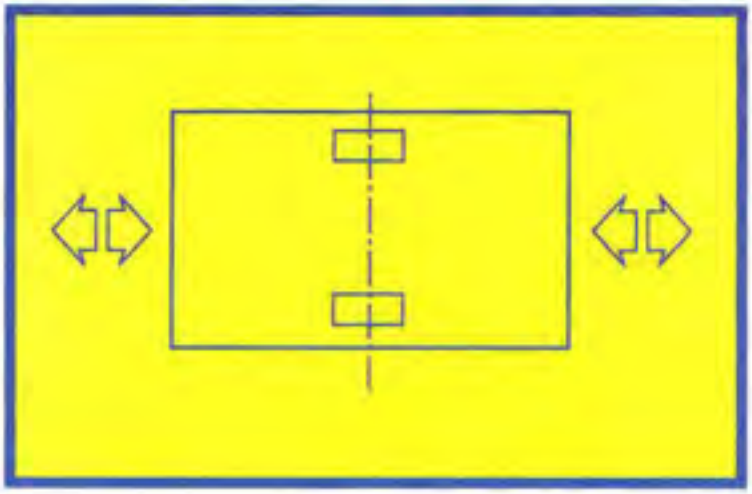
GUIDANCE ON USAGE
(TYPICAL CONFIGURATIONS)

Dorvic Skates can be used in a great v
possible to move loads using 2, 3 or 4
large civil engi

The points on this page form a helpful guide when using Skates in common configurations using two or three skates

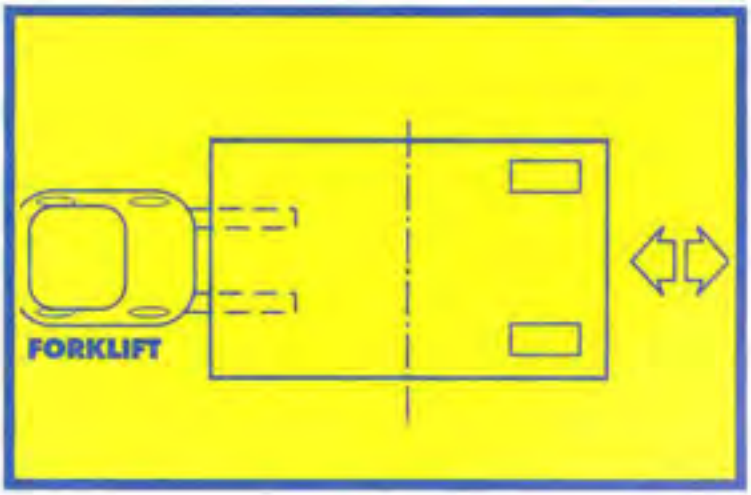
Using 2 Skates

1 For light and small loads that can be moved by manpower. Simply place 2 Skates under the load (on centre of gravity line) and simply pull or push.



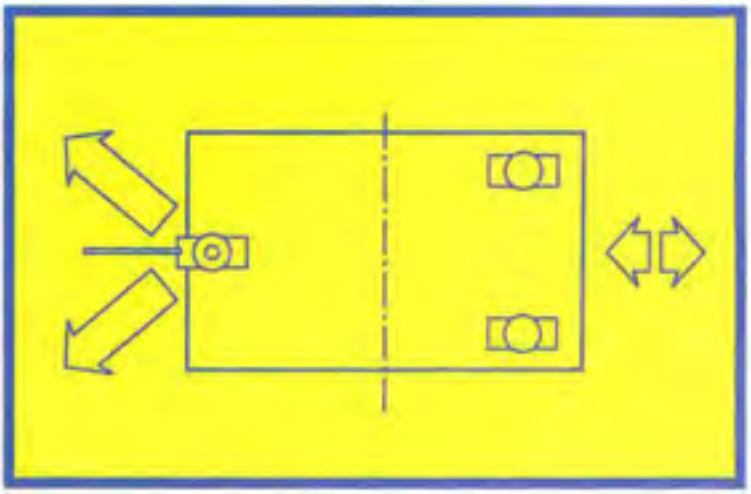
Using 2 Skates

2 For Larger Loads Requiring Machine Pulling Power. Load is mounted similar to above, but with the Skates more to one end of the load. The end that is now touching the floor can be lifted by pallet truck, forklift etc, and the load pushed or pulled.



Using 3 Skates

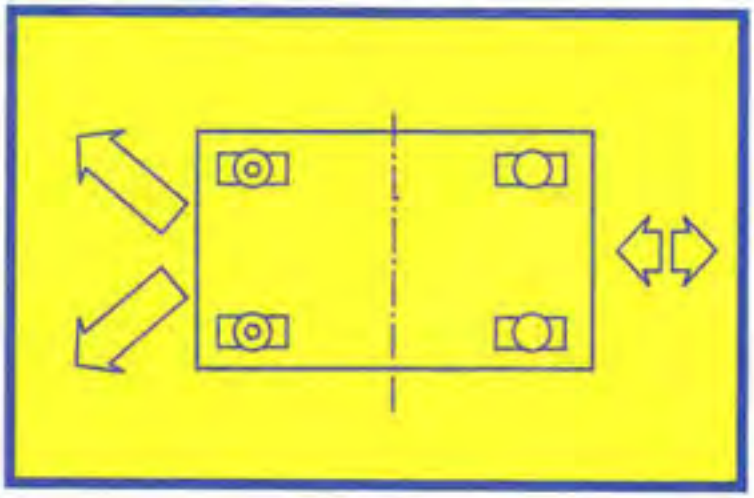
2 Skates fitted with stabilisers are placed parallel at one end of the load and 1 Skate with a Turntable at the opposite end. If one end of the load is heavier than the other, use the 2 Skates at the heavy end. For increased manoeuverability use a Turntable on each Skate.



riety of ways and combinations. It is
ates, or indeed hundreds of Skates on
ering projects.

GUIDANCE ON USAGE
(TYPICAL CONFIGURATIONS)

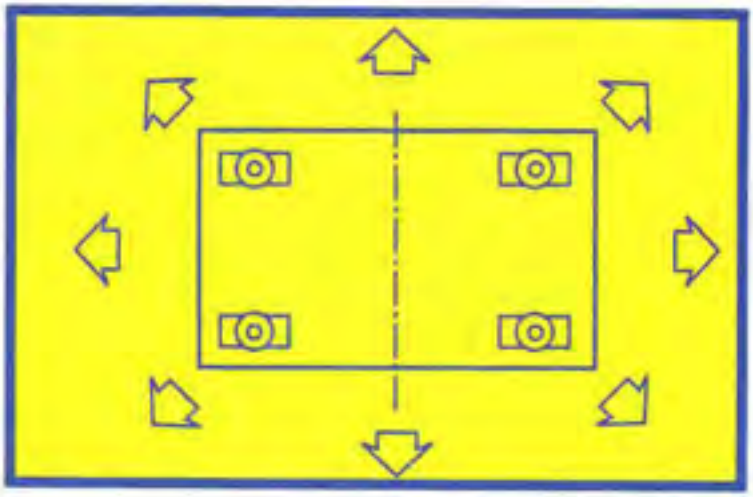
The points on this page form a helpful guide when using Skates in common configurations using four Skates and Turntables



Using 4 Skates

This configuration can be used for loads of a few hundred kilos to hundreds of tonnes.

Load is mounted on 4 Skates (one in each corner) for straight line movement. Use 2 Skates plus Turntables and 2 Skates plus stabilisers for slight turns.



Using 4 Skates with a Turntable on each will give maximum manoeuverability.

Key

- Basic Skate
- Skate with Turntable Fitted
- Skate with Stabiliser Fitted

Capacity Ratings

The maximum load capacities quoted in this brochure are all based on running on a hard steel surface. Movement on a good concrete surface is possible, but wherever possible lay steel sheets, channels etc, do not attempt to move on any soft loose or non-permanent surface e.g. soft tarmac, tiles etc.

- Carrying capacities stated are per set of 4 units on all multi-purpose Skates and rigger kits.
- Carrying capacities for all 'heavy duty' Skates are per individual Skate.

When selecting a Skate, bear in mind the following factors. Is the Skate under load permanently? Is the load static or dynamic? What is the condition of the rolling surface? Is the load evenly distributed over the Skates? Will there be any vibration either intentionally or accidentally? Will the Skate be used in dirty conditions e.g. sand, grit, swarf being present? Are conditions corrosive?

Please use the following recommendations when selecting a Skate.

Case 1 Occasional use in a workshop, to move machinery etc, on a good clean floor – Take load capacity as 75% of the design ratings as shown.

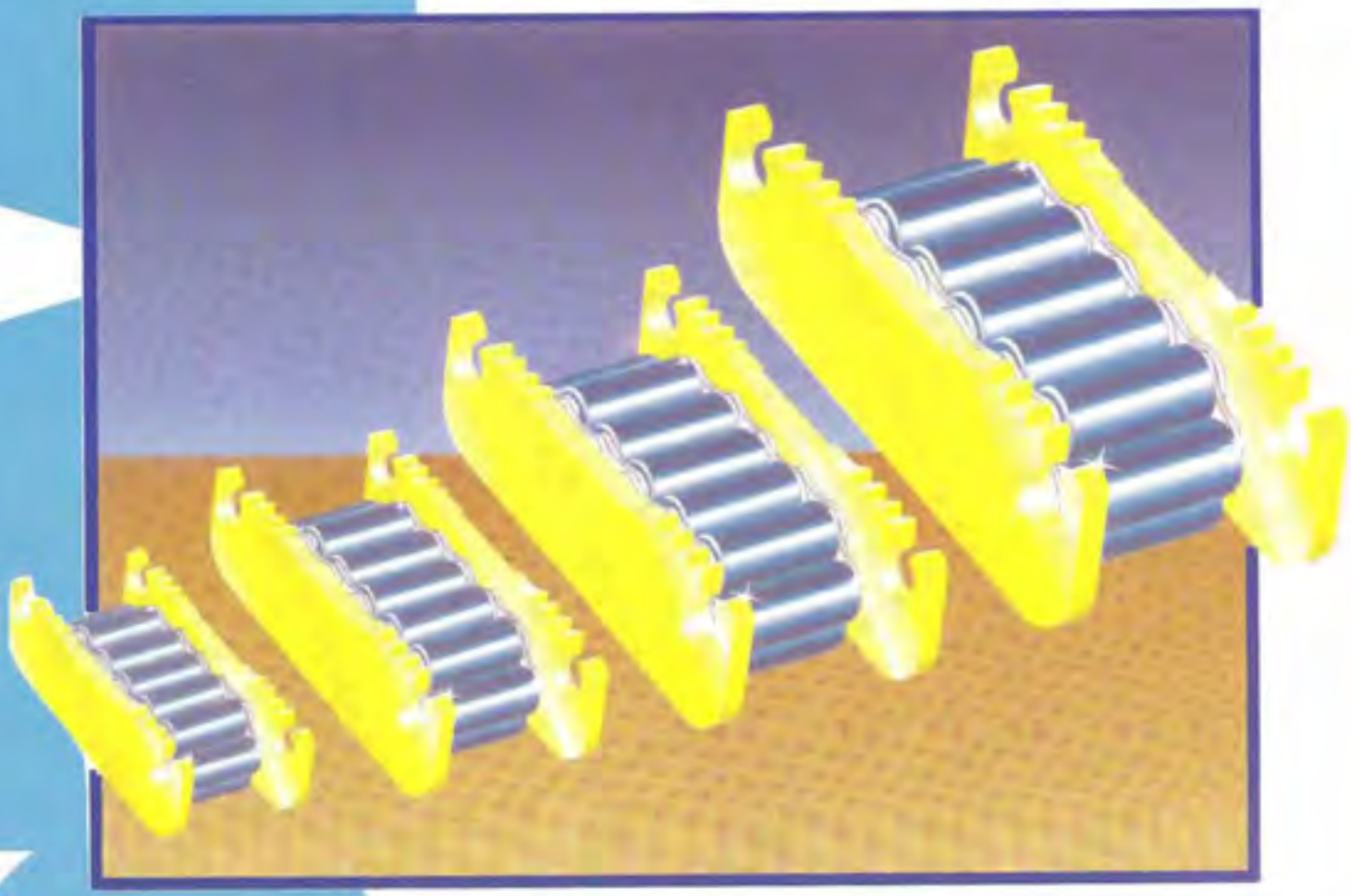
Case 2 Sustained or permanent loading of the Skate on a good clean surface, with occasional movement – Use 50% of the shown design load ratings.

Case 3 Sustained or permanent loading of the Skate in arduous conditions, e.g. where dirt, sand etc. exist – Use 40% of the shown design load ratings.

GENERAL MULTI-PURPOSE SKATES

Construction

BODIES – CAST S. G. IRON
CHAIN – CASE HARDENED STEEL



This range of skates are normally sold in sets of 4 and can be used on their own or together with the steering accessories available

The Range

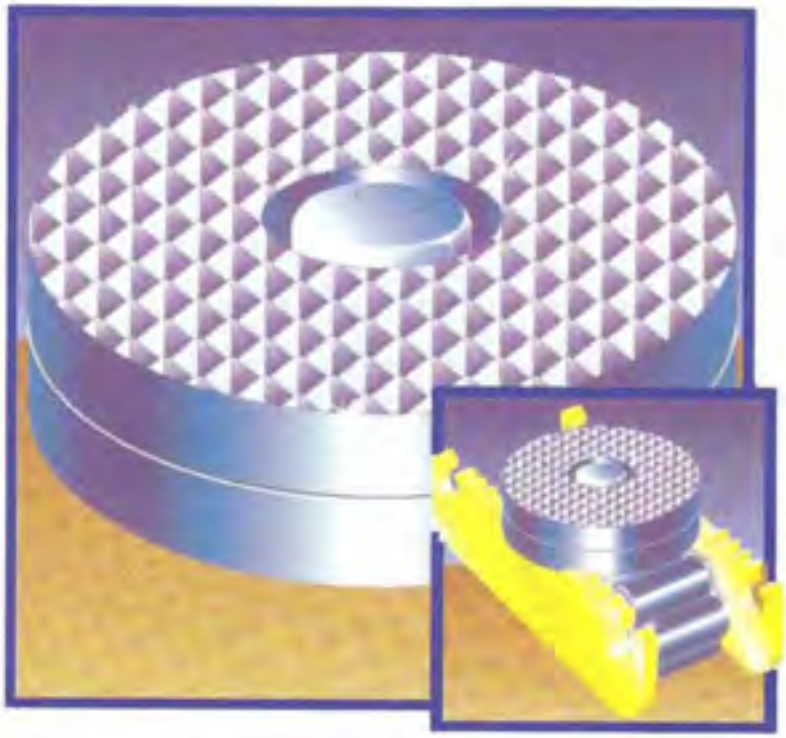
This range of Dorvic Multi-Purpose Skates consists of 4 Standard Sizes

- TYPE 'A/20' – CAPACITY 20 TONNE/SET OF 4
- TYPE 'B/50' – CAPACITY 50 TONNE/SET OF 4
- TYPE 'C/100' – CAPACITY 100 TONNE/SET OF 4
- TYPE 'D/150' – CAPACITY 150 TONNE/SET OF 4

MODEL	CAPACITY – TONNE SET OF 4	LENGTH m/m	WIDTH m/m	HEIGHT m/m	HEIGHT with TURNTABLE m/m	ROLLER WIDTH m/m	ROLLER DIAMETER m/m	WEIGHT kgm
'A'/20	20	210	102	59	94	51	18	4.00
'B'/50	50	271	125	95	143	67	30	11.00
'C'/100	100	370	175	130	179	90	42	27.00
'D'/150	150	502	186	152	206	90	42	42.00

ACCESSORIES FOR MULTI-PURPOSE SKATES

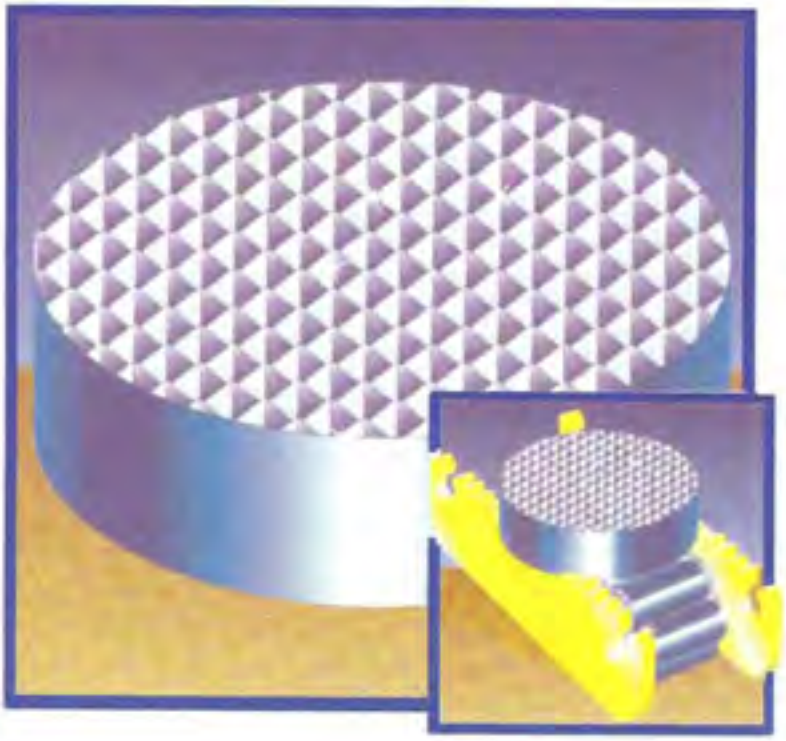
TURNTABLES & STABILISERS



Turntables

The Turntable can be located on the top of the Skate when it is desired to have complete control over the steering of the load, for example when manoeuvring in confined areas where exact positioning is necessary.

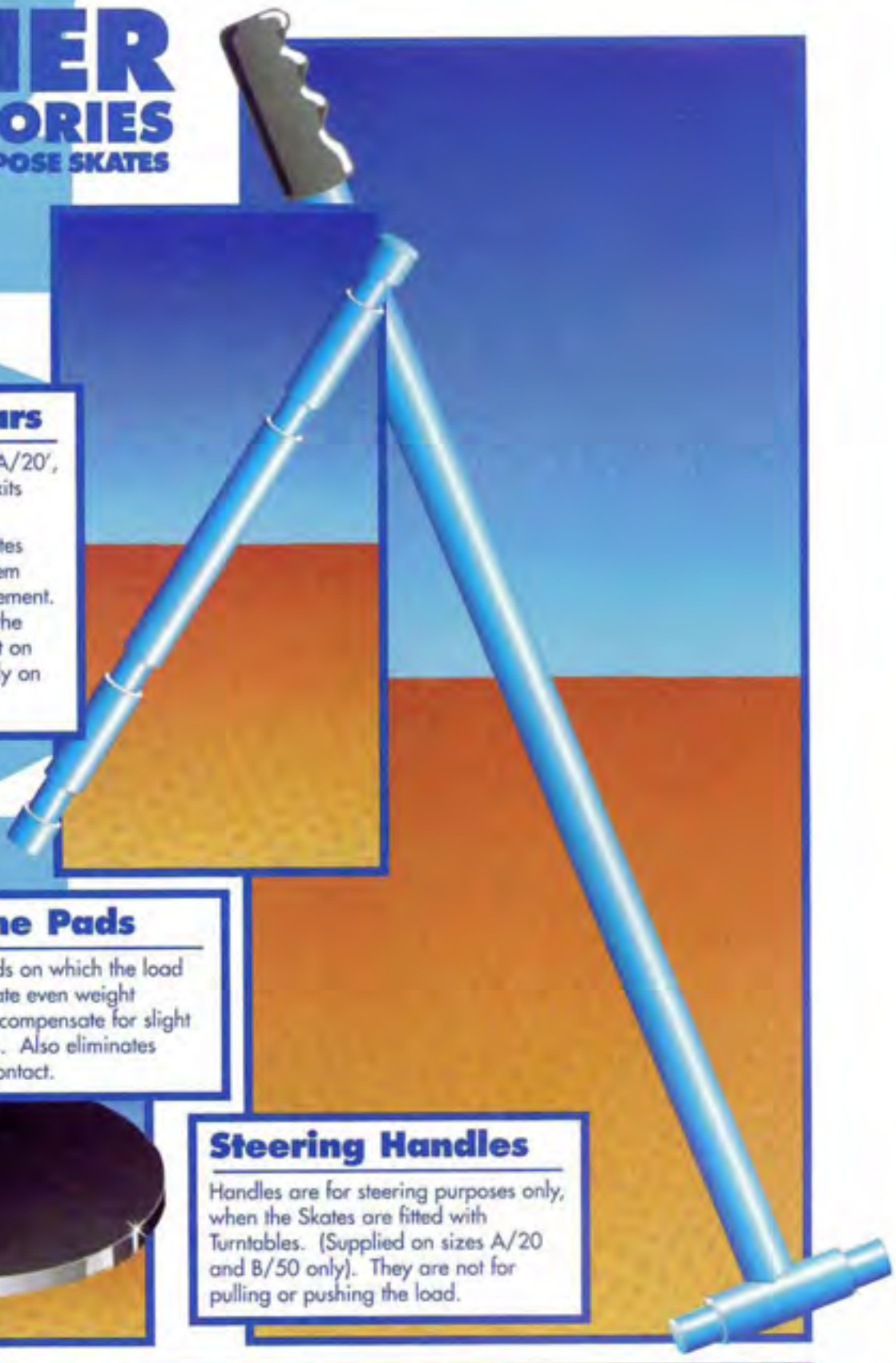
Turntables can be used on any number os Skates, dependent on the nature of the load (See note on Guidance on Usage).



Stabilisers

Supplied on sizes 'A/20', 'B/50' and rigger kits only. Are used in conjunction with Turntables, to compensate for height difference on Skates with Turntables and those without.

OTHER ACCESSORIES
FOR MULTI-PURPOSE SKATES



Spacer Bars

Supplied on sizes 'A/20', 'B/50' and rigger kits only.

Used to tie two Skates together to keep them parallel under movement. It is important that the load should not rest on these bars but totally on the Skates.

Neoprene Pads

Hard rubber pads on which the load can sit, to facilitate even weight distribution and compensate for slight floor unevenness. Also eliminates metal to metal contact.

Steering Handles

Handles are for steering purposes only, when the Skates are fitted with Turntables. (Supplied on sizes A/20 and B/50 only). They are not for pulling or pushing the load.

RECOMMENDED SETS

When ordering types 'A/20' and 'B/50' it is recommended that a useful set to cover most general workshop applications be as follows:

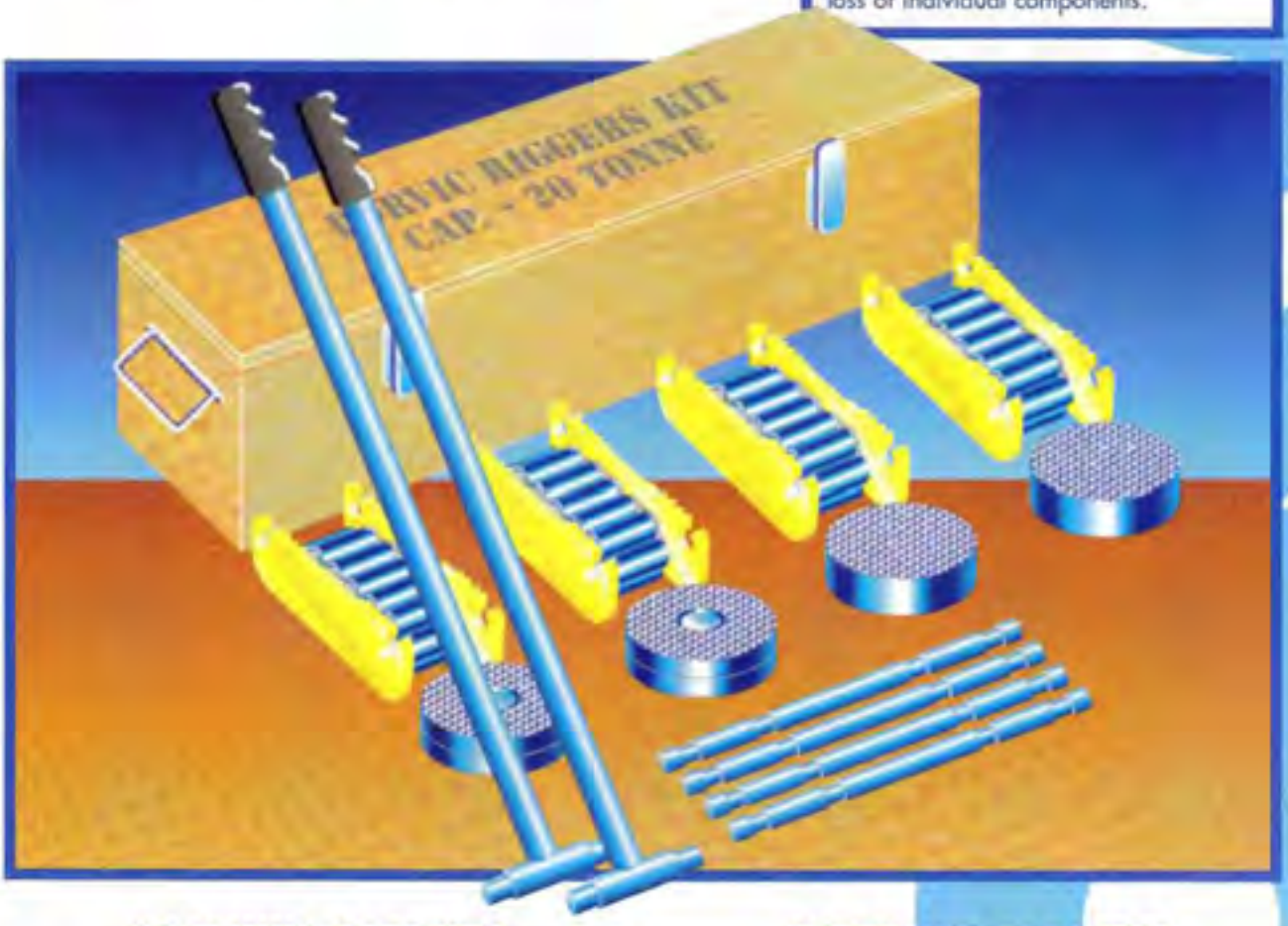
- 4 Skates
- 2 Turntables
- 2 Stabilisers
- 2 Handles
- 4 Spacer Bars

RIGGERS KITS

Ideal For Rigging and Maintenance Crews

Kits supplied in two capacities 20 Tonnes and 50 Tonnes. Each capacity having a choice of 2 models i.e. containing 2 Turntables and 2 Stabilisers or alternatively (for extra manoeuverability) 4 Turntables.

Rigger Kits are supplied in their own high quality hand-made wooden boxes. These robust carrying cases help keep all the set together, and help prevent loss of individual components.



20 TONNE CAPACITY

DRS/20/2+2
Comprising of:
4 Skates
2 Turntables
2 Stabilisers
4 Spacer Bars (450 mm long)
2 Handles (790 mm long)
Capacity: 20 Tonne
Weight of Cased Set: 41 kg

DRS/20/+4
Comprising of:
4 Skates
4 Turntables
4 Spacer Bars (450 mm long)
2 Handles (790 mm long)
Capacity: 20 Tonne
Weight of Cased Set: 41 kg

Case size:- (870mm x 254mm x 170mm)

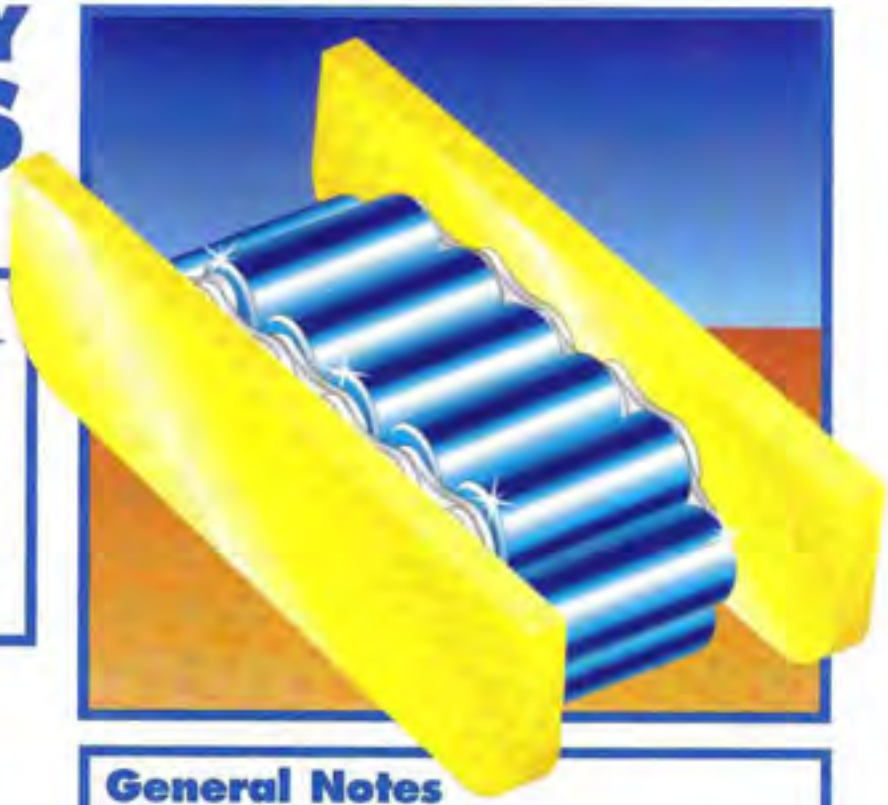
50 TONNE CAPACITY

DRS/50/2+2
Comprising of:
4 Skates
2 Turntables
2 Stabilisers
4 Spacer Bars (450 mm long)
2 Handles (1000 mm long)
Capacity: 50 Tonne
Weight of Cased Set: 94 kg

DRS/50/+4
Comprising of:
4 Skates
4 Turntables
4 Spacer Bars (450 mm long)
2 Handles (1000 mm long)
Capacity: 50 Tonne
Weight of Cased Set: 94 kg

Case size:- (1090mm x 314mm x 318mm)

HEAVY DUTY SKATES



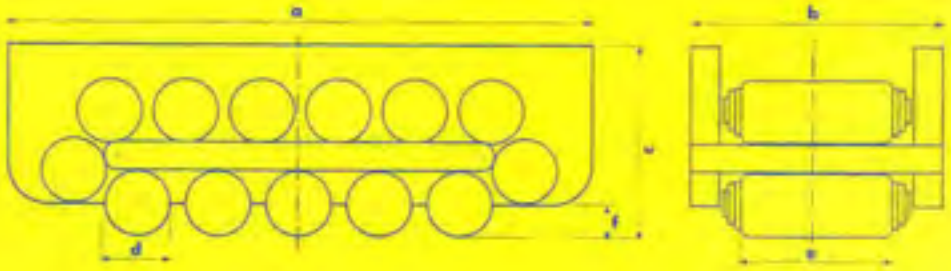
Model Type: OT

- Supplied in 5 capacities
- Heavy duty construction
- Bodies of fabricated steel
- Load-bearing centre plate heat treated
- Special chrome alloy, heat treated chains

Basic Skate Design for Heavy Duty Applications

General Notes

- Ideal for welding directly to the load
- Ideal for use with guide rollers (see page 15)
- Suitable for running on rails or in channels
- Can be used inverted to act as a conveyor system

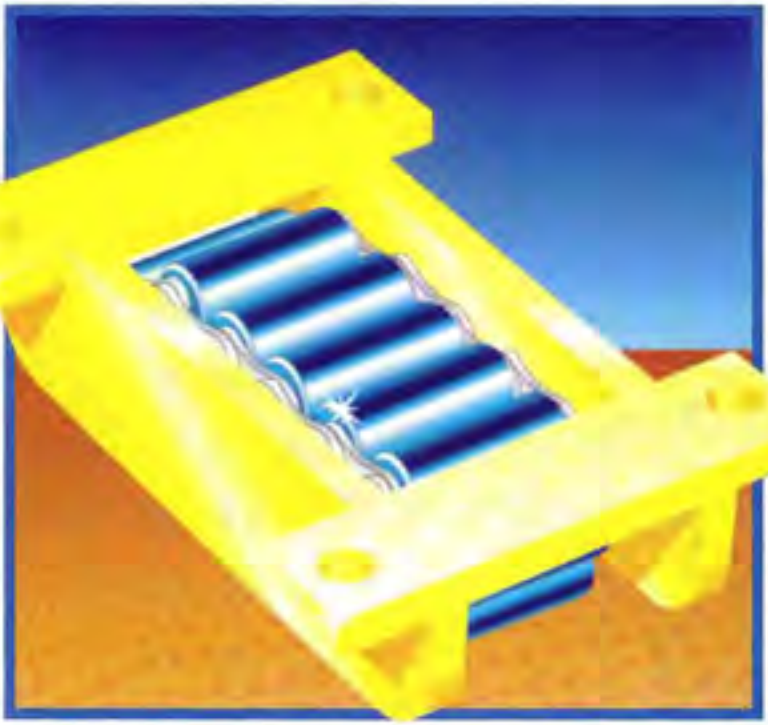


Specifications

MODEL	a	b	c	Ød	e	f	Rollers in Contact	Total Rollers	Maximum Load Tonnes	Weight Kg
I	210	100	63	18	51	6	5	15	10	5.0
II	220	113	73	24	60	10	4	13	15	7.0
III	270	130	90	30	68	10	4	13	30	12.0
IV	380	168	126	42	76	19	4	13	60	32.0
V	530	182	146	50	86	19	6	17	80	61.0

All Dimensions in mm

HEAVY DUTY SKATES



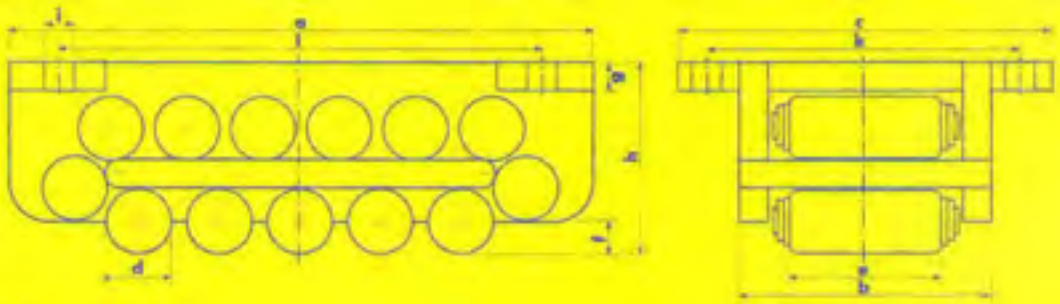
Model Type: OT/TB

- Supplied in 5 capacities
- Heavy duty construction
- Bodies of fabricated steel
- Load-bearing centre plate heat treated
- Special chrome alloy, heat treated chains

General Notes

- Ideal for bolting to the load
- Ideal for use with guide roller (see page 15)
- Suitable for running on rails or channels
- Can be used inverted to act as a conveyor system
- All sizes have 4 bolt holes as standard (hole centres and diameters can be altered to suit customers requirements if required)

Basic Skate Design similar to Model OT, but having Fixing Bars across each end



Specifications

MODEL	a	b	c	Ød	e	f	g	h	Øi	k	l	Rollers in Contact	Total Rollers	Maximum Load Tonnes	Weight Kg
I	210	100	175	18	51	6	13	63	14	140	170	5	15	10	6.0
II	220	113	190	24	60	10	14	73	14	155	180	4	13	15	8.0
III	270	130	210	30	68	10	14	90	18	175	220	4	13	30	14.0
IV	380	168	270	42	76	19	19	126	22	220	320	4	13	60	36
V	530	182	300	50	86	19	19	146	22	240	470	6	17	80	66.0

All Dimensions in mm

HEAVY DUTY SKATES

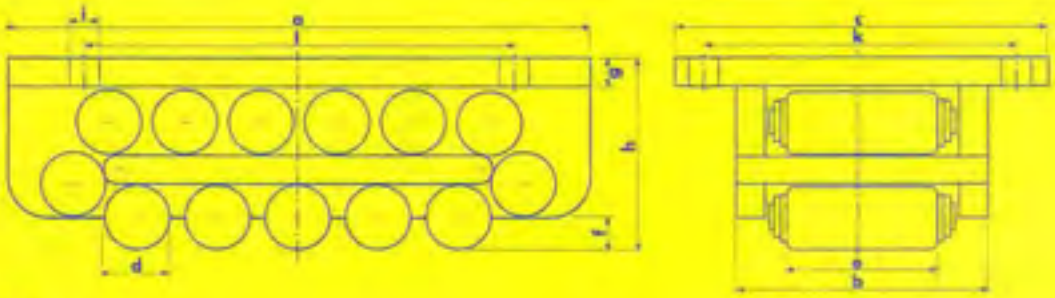
Model Type: FT

- Supplied in 6 capacities
- Heavy duty construction
- Bodies of fabricated steel
- Load-bearing centre plate heat treated
- Special chrome alloy, heat treated chains

Heavy Construction with Large Load Bearing Top Plate

General Notes

- Suitable for either bolting or welding to the load
- Ideal for use with guide rollers (see page 15)
- Suitable for running on rails or in channels
- Can be used inverted to act as a conveyor system
- All models supplied with 4 standard bolt holes (hole centres and diameters can be altered to suit customers requirements if required)



Specifications

MODEL	a	b	c	Ød	e	f	g	h	Øi	k	l	Rollers in Contact	Total Rollers	Maximum Load Tonnes	Weight Kg
I	210	100	175	18	51	6	13	76	14	140	150	5	15	15	9.0
II	220	113	190	24	60	10	14	87	14	155	150	4	13	20	12.0
III	270	130	210	30	68	10	14	104	18	175	190	4	13	40	19.0
IIIv	320	140	220	30	68	10	18	115	18	180	240	6	17	50	29.0
IV	380	168	270	42	76	19	19	145	22	220	280	4	13	65	51.0
V	530	182	300	50	86	19	19	165	22	240	410	6	17	100	92.0

All Dimensions in mm

HEAVY DUTY SKATES

Model Type: FT/CG

- Supplied in 6 capacities
- Heavy duty construction
- Bodies of fabricated steel
- Load-bearing centre plate heat treated
- Special chrome alloy, heat treated chains

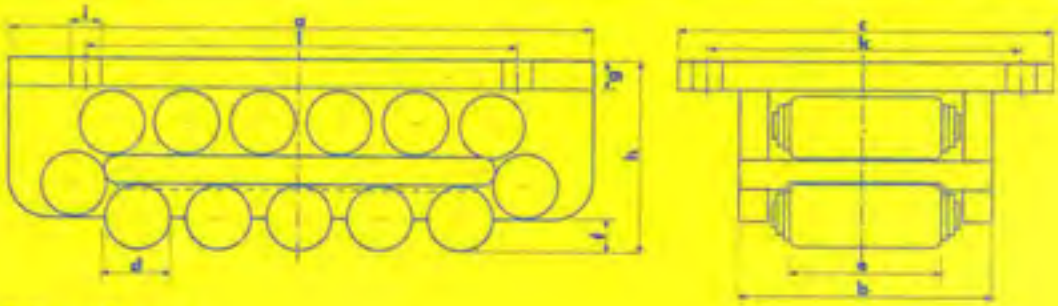
IMPORTANT

PLEASE ENSURE THAT BEFORE APPLYING THE LOAD ON THIS SKATE THAT ALL UNDERSIDE ROLLERS ARE LOCATED CORRECTLY IN THE CHAIN GUIDE GROOVE

General Construction as Model FT but with Chain Groove Guide

General Notes

- General construction as per Model FT
- Models FT/CG have the addition of a chain guide groove cut into the centre member. This helps to keep the chain running parallel with the body. Also helps reduce chain wear
- This model is recommended for applications when the skates are permanently loaded or moving over long distances
- All models supplied with 4 standard bolt holes (hole centres and diameters can be altered to suit customers requirements if required)
- Suitable for either bolting or welding to the load
- Ideal for use with guide rollers (see page 15)
- Suitable for running on rails or in channels
- Can be used inverted to act as a conveyor system



Specifications

MODEL	a	b	c	Ød	e	f	g	h	Øi	k	l	Rollers in Contact	Total Rollers	Maximum Load Tonnes	Weight Kg
III	270	130	210	30	68	10	14	104	18	175	190	4	13	40	20.0
IIIv	320	140	220	30	68	10	18	115	18	180	240	6	17	50	29.0
IV	380	168	270	42	76	19	19	145	22	220	280	4	13	65	52.0
V	530	182	300	50	86	19	19	165	22	240	410	6	17	100	93.0
Vv	600	205	350	50	100	20	28	190	26	280	480	9	23	150	162.0
VI	900	205	380	50	100	20	38	200	33	300	720	13	31	200	266.0

All Dimensions in mm

EXTRA HEAVY DUTY SKATES

Model Type: DFT/CG

- Supplied in 6 capacities
- Heavy duty construction
- Bodies of fabricated steel
- Load-bearing centre plate heat treated
- Special chrome alloy, heat treated chains

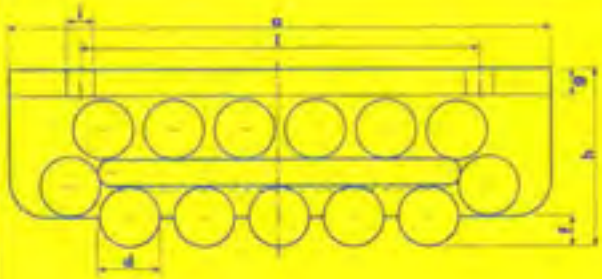
Suitable for the Heaviest of Moving Jobs

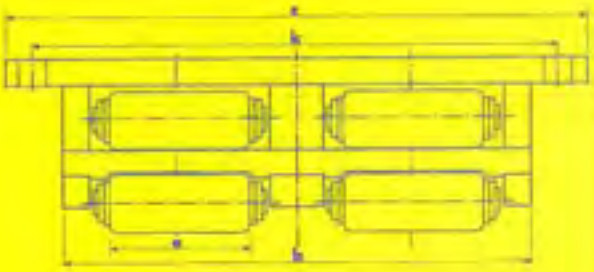
IMPORTANT

PLEASE ENSURE THAT BEFORE APPLYING THE LOAD ON THIS SKATE THAT ALL UNDERSIDE ROLLERS ARE LOCATED CORRECTLY IN THE CHAIN GUIDE GROOVE

General Notes

- Suitable for sustaining extreme point loadings on the heaviest of moving jobs
- All DFT/CG models have the addition of a chain guide groove cut into the centre member. This helps to keep the chain running parallel with the body. Also helps reduce chain wear
- Suitable for either bolting or welding to the load
- Ideal for use with guide rollers (see page 15)
- Suitable for running on rails or in channels
- Can be used inverted to act as a conveyor system• All models supplied with 4 standard bolt holes (hole centres and diameters can be altered to suit customers requirements if required)

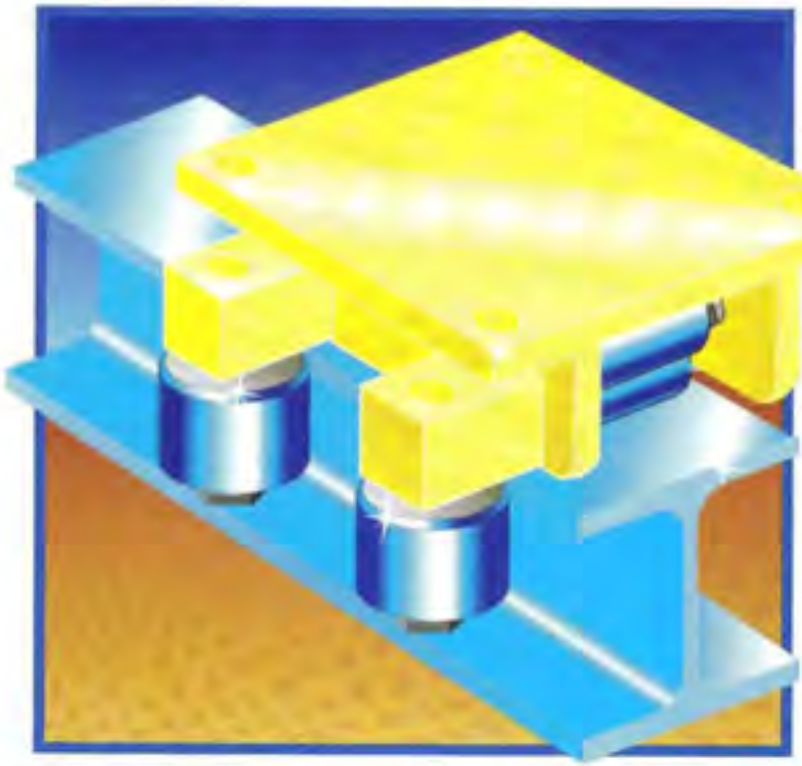




Specifications

MODEL	a	b	c	Ød	e	f	g	h	Øi	k	l	Rollers in Contact	Total Rollers	Maximum Load Tonnes	Weight Kg
III	270	260	340	30	68	10	14	104	18	305	190	2 x 4	2 x 13	80	36.0
IIIv	320	280	360	30	68	10	18	115	18	325	240	2 x 6	2 x 17	100	57.0
IV	380	336	440	42	76	19	19	145	22	390	300	2 x 4	2 x 13	130	96.0
V	530	364	480	50	86	19	19	165	22	430	420	2 x 6	2 x 17	200	175.0
Vv	600	410	560	50	100	20	28	190	26	490	480	2 x 9	2 x 23	300	305.0
VI	900	410	590	50	100	20	38	200	33	500	720	2 x 13	2 x 31	400	485.0

All Dimensions in mm



ROLLER GUIDES

General Notes

- Can be fitted to most types of skate
- Provides parallel motion when running on tracks
- All roller guides can be made to measure, to suit the customers particular track dimensions
- Supplied in the following configurations (Shown Below)

1 Guide Roller Arrangement

Figure 1

3 Guide Roller Arrangement

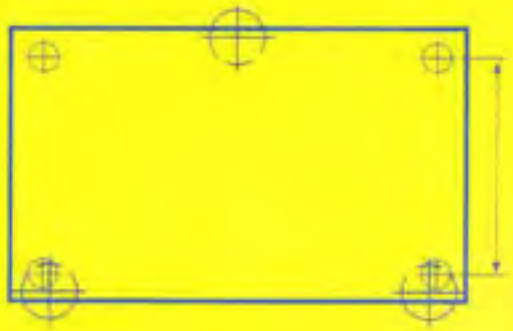


Figure 2

2 Guide Roller Arrangement

Figure 3

4 Guide Roller Arrangement

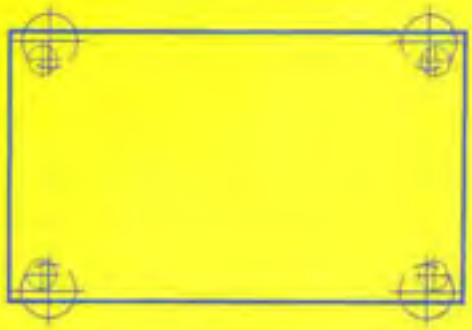


Figure 4

Dorvic Engineering Ltd was founded in 1967, and is the principal producer of caterpillar load moving skates in the U.K. In addition to the standard skates shown in this brochure, Dorvic can also design and manufacture SPECIALS to suit any customers' particular application.

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Website www.dorvic.com

DORVIC
The name that carries Weight.

MANUFACTURERS OF MOVING AND LIFTING EQUIPMENT INCLUDING INDUSTRIAL ROLLER SKATES AND BOGIES, RATCHET TOE JACKS, ROLLER CROWBARS, MANUAL SHEET METAL CARRYING TOOLS.