

OPERATING & MAINTENANCE INSTRUCTIONS

“RAPTOR” PUSH/GEARED SCREW TROLLEY
PT & SG SERIES



Note: Owner/Operator must read and understand this instruction manual before using the trolley.

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THANK YOU FOR PURCHASING THE **“RAPTOR SCREW TYPE TROLLEY”**. FOR YOUR SAFETY, CORRECT OPERATION & MAINTENANCE - PLEASE CAREFULLY READ THIS INSTRUCTION MANUAL PRIOR TO OPERATION.

NOTE: All of the information reported herein is based on data available at the moment of printing. The manufacturer reserves the right to modify its own products at any moment without notice and incurring in any sanction.

1. **INTRODUCTION**

The “RAPTOR” Trolley is a versatile lifting accessory that can anchor a hoist or winch to the Load bar and be used to move a load along an overhead “I” beam in a horizontal direction.

DO NOT use the Push Travel trolley on a sloping beam.

2. CORRECT OPERATION / GENERAL WARNINGS

- 1) Retain this Manual for future reference.
- 2) Never exceed the capacity stated on the equipment being attached to the Trolley.
- 3) Do not use the Trolley for lifting or transporting of personnel.
- 4) Do not apply side-pull forces to the trolley.
- 5) The Trolley can be used in ambient temperatures between -10C and +50C.
- 6) Position Trolley so that the equipment can be operated safely and not causing danger to himself or other personnel.
- 7) Do not attach loads while any personnel are under or within the danger zone.
- 8) It is the operator's responsibility to ensure the load is attached to the Trolley in a safe and secure manner before movement of load.
- 9) Never leave a suspended load unattended.
- 10) Never use other devices to exert extra force to tighten the Trolley to the beam.
- 11) Respect lifting equipment, always place items safely/carefully on the ground.
- 12) After inspection – if any defect is found remove item from service immediately.

3. IN-SERVICE INSPECTION & MAINTENANCE

INITIAL INSPECTION

Check that the correct Trolley and the capacity of lifting equipment attached to the Trolley are suitable for the job in hand. Prior to using the Trolley for the first time, it must be checked by a competent person. Visually check that the Trolley has been delivered and/or stored in a safe and undamaged condition.

IN-SERVICE INSPECTION – Before operation

Prior to starting work check the Trolley and load bearing constructions, visually for any defects. It is the operator's responsibility to ensure that all load bearing constructions are suitable to carry the Trolley and the load attached to the Trolley

BEAM CLAMP INSPECTION

Visually inspect the Trolley for wear, defects, and deformations or superficial/corrosion marks before use. If operator is unsure of the condition, they should be checked by a trained and competent person.

LOAD BAR INSPECTION

Visually inspect the Trolley to determine that the load bar has been assembled correctly. The Load bar should also be checked for wear, defects, and deformations or superficial/corrosion marks before every use.

The Load Bar must also be checked to make sure it is in the vertical position, relevant to the beam the trolley is fitted on.

4. INSTALLATION

Firstly separate the two side plates and the central load bar. The Load Bar has a left and right hand thread which is indicated by the letter "L" & "R" and the load bar end.

Start by screwing the left hand thread side of the load bar into the left sided side plate, to start only screw approximately 5mm of thread into the side plate, repeat the same for the right hand side plate. Once both side plates are secure proceed with turning the Load bar until the thread is flush with the outer sides of both side plates.

The unit is now ready to attach it to the suitable beam. Final adjustment can now be made so that the trolley fits correctly on the lower flange of the beam. The clearance between the flange of the running wheel and the edge of the beam must not exceed the following:-

Fitted With Standard Length Load Bar (A)

Capacity of Trolley	Clearance	Beam Width
500-1000Kgs	1.5-3.0mm	50-220mm
2000Kgs	1.5-3.0mm	66-220mm
3000Kgs	1.5-3.0mm	74-220mm
5000Kgs	1.5-3.0mm	90-220mm

Fitted With Extended Length Load Bar (B)

Capacity of Trolley	Clearance	Beam Width
500-1000Kgs	1.0-1.5mm	160-300mm
2000-3000Kgs	1.5-2.0mm	160-3000mm
5000Kgs	2.0-2.5mm	160-300mm

NEVER increase the clearance to accommodate large curves

5. OPEARTION

Both the geared and push travel trolley have been designed to move along traversing beam using all four running wheels.

The Push Travel Trolley can be operated by gently and safely pushing the load along the beam by hand (once the load has been lifted off the floor),

The Geared Travel Trolley can be operated by using the hand chain provided – by pulling down clockwise the trolley will start to move to the right, by pulling anticlockwise the trolley will travel to the left.

NEVER push or pull a load which is attached to a trolley while it is still situated on the ground.

6. MAINTENANCE/INSPECTION

To maintain continuous and satisfactory operation, a regular inspection procedure must be initiated so that worn or damaged parts can be replaced before they become unsafe. The intervals of inspection must be determined by the individual application and are based upon the type of service to which the Trolley is subjected.

The Trolley should be visually inspected by the operator / competent person daily or before each use.

Annual inspection, repairs and re-certifying of the Beam Clamp should be carried out in accordance to European Safety Regulations – therefore the hoist must be returned to a recognized and competent lifting equipment repair centre.

7. TROUBLE SHOOTING

If the trolley is not moving in the correct manor – i.e. not running smooth check the beam is clear of all obstacles, check that all wheels are running smoothly, check wheels to determine that they have not become damaged, check the trolley is seated correctly on the beam and to the correct clearance

8. EC DECLARATION of CONFORMITY 2006/42/EC

We hereby declare, that the design, construction and commercialized execution of the below mentioned machine complies with the essential health and safety requirements of the EC MACHINERY DIRECTIVE. The validity of this declaration will cease in the case of any modification or supplement not being agreed with the manufacturer beforehand.

Furthermore, validity of this declaration will cease in case that the machine will not be operated correctly and in accordance to the operating instruction manual and/or not being inspected regularly.

PRODUCT DESCRIPTION - Push Travel Trolley
MODEL RANGE - PT (A) & (B) Series
CAPACITY - 500Kgs to 5,000Kgs
IDENTIFICATION - Located on Serial Plate on Machine
And stated on individual EC Declaration of
Conformity supplied separate to this booklet

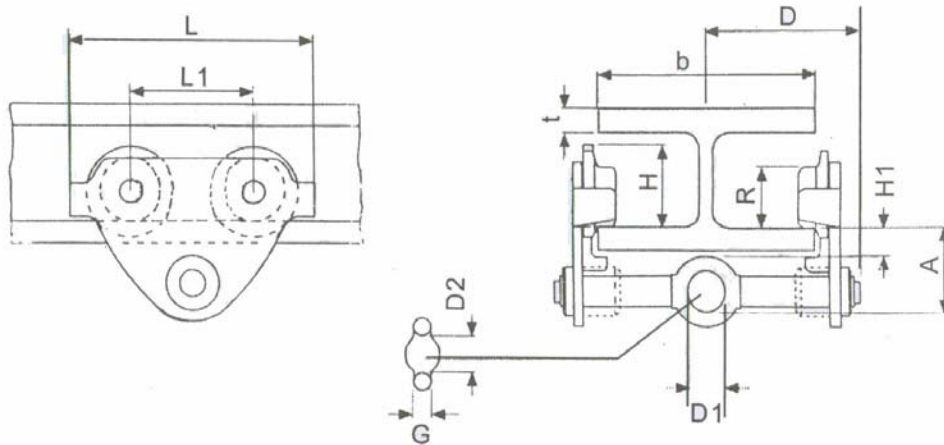
RELEVANT EC
DIRECTIVES - The Machinery Directive 2006/42/EC
1st Edition December 2009

PRODUCT DESCRIPTION - Gear Travel Trolley
MODEL RANGE - SG (A) & (B) Series
CAPACITY - 500Kgs to 5,000Kgs
IDENTIFICATION - Located on Serial Plate on Machine
And stated on individual EC Declaration of
Conformity supplied separate to this booklet

RELEVANT EC
DIRECTIVES - The Machinery Directive 2006/42/EC
1st Edition December 2009

9. Specifications

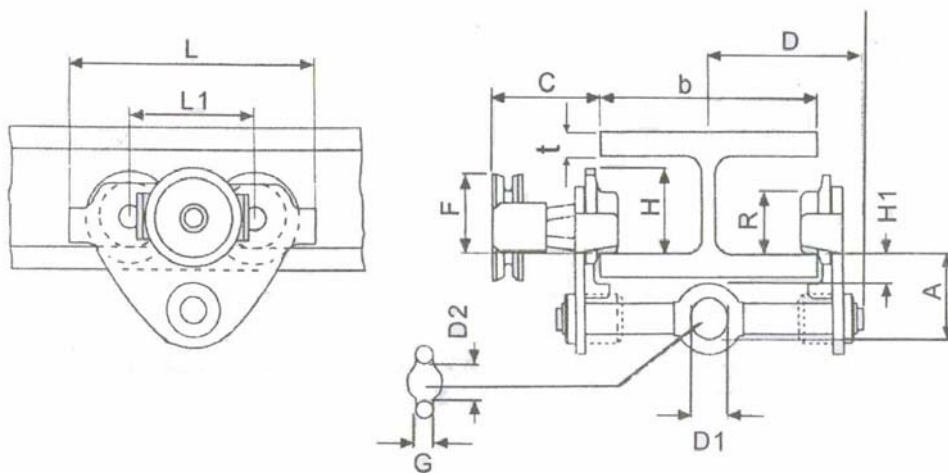
A. Specifications of plain trolley.



Model	Cap. kg	Beam Flange Width mm	A mm	G mm	D1 mm	D2 mm
PT05A	500	50-220	81.5	12	25	30
PT05B	500	160-300	92	16	25	30
PT10A	1000	50-220	96	16	30	36
PT10B	1000	160-300	97.5	17	30	35
PT20A	2000	66-220	102	20	40	48
PT20B	2000	160-300	113.5	22	40	47
PT30A	3000	74-220	128	24	46	58
PT30B	3000	160-300	129	26	48	58
PT50A	5000	90-220	133.5	28	52	65
PT50B	5000	180-300	147.5	33	60	70

Model	H mm	H1 mm	L mm	L1 mm	R mm	D mm	Weight kg
PT05A	67	39.5	199	100	55	140	5
PT05B	71.5	45.5	260	130	60	187	10.6
PT10A	81.5	44	246	120	68	151	9
PT10B	71.5	45.5	260	130	60	187	12
PT20A	94	34	276	132	80	157	15
PT20B	95.5	45.5	310	150	80	189.5	19.3
PT30A	115.5	46	332	155	100	164	24
PT30B	131	45	390	180	112	191.5	35.8
PT50A	127	40.5	377	168	110	173	36
PT50B	142.5	45	450	209	125	191.5	52.2

B. Specifications of geared trolley.

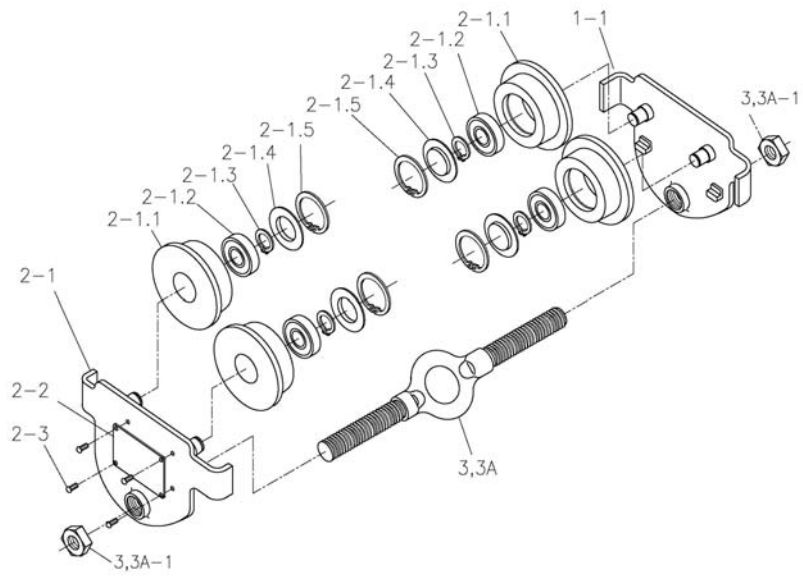


Model	Cap. kg	Beam Flange Width mm	A mm	C mm	G mm	D1 mm	D2 mm
SG05A	500	50-220	81.5	74	12	25	30
SG05B	500	160-300	92	110	16	25	30
SG10A	1000	50-220	96	78	16	30	36
SG10B	1000	160-300	97.5	110	17	30	35
SG20A	2000	66-220	102	81	20	40	48
SG20B	2000	160-300	113.5	110	22	40	47
SG30A	3000	74-220	128	86	24	46	58
SG30B	3000	160-300	129	110	26	48	58
SG50A	5000	90-220	133.5	92	28	52	65
SG50B	5000	180-300	147.5	110	33	60	70

Model	F mm	H mm	H1 mm	L mm	L1 mm	R mm	D mm	Weight kg
SG05A	65	67	31.5	199	100	55	140	9
SG05B	91.5	76.5	45.5	260	130	60	187	12.6
SG10A	65	81.5	33	246	120	68	151	13
SG10B	91.5	76.5	45.5	260	130	60	187	14.1
SG20A	69	94	34	270	132	80	157	18
SG20B	90.5	98	45.5	310	150	80	189.5	21.3
SG30A	100	115.5	35	332	155	100	164	27
SG30B	107.5	132.5	45	390	180	112	191.5	39.2
SG50A	104	127	37	377	168	110	173	40.5
SG50B	149.5	148.5	45	450	209	125	191.5	56

10. Parts List

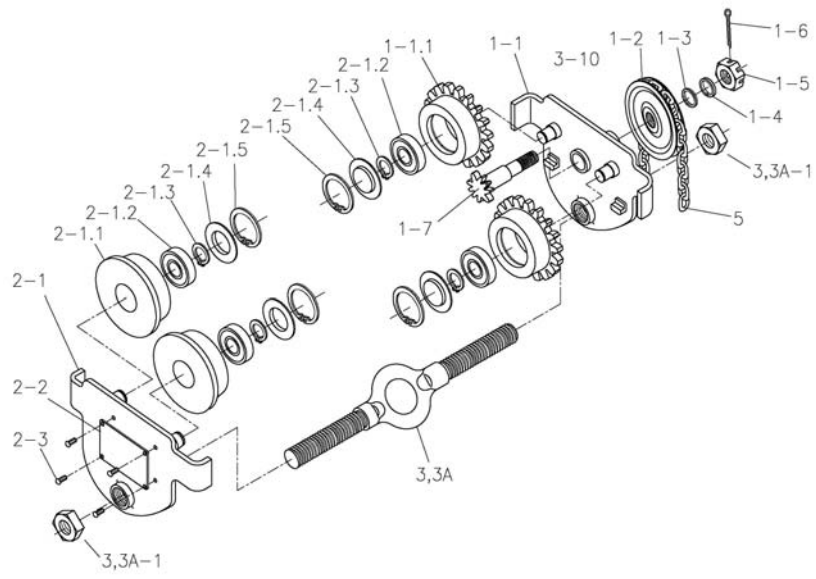
A1. Plain Trolley- A Type



Parts List for the Plain Trolley-A Type

Assembly Name	No.	Part Name	No.	Qty.
Right Plate Assembly	1	Right Plate	1-1	1
		Driven Wheel	2-1.1	2
		Ball Bearing 180202 GB/T276-94	2-1.2	2
		GB894.1-86 Snap Ring 15 GB894.1-86	2-1.3	2
		Bearing Cover	2-1.4	2
		Snap Ring 35 GB893.1-86	2-1.5	2
Left Plate Assembly	2	Left Plate	2-1	1
		Driven Wheel	2-1.1	2
		Ball Bearing 180202 GB/T276-94	2-1.2	2
		Snap Ring 15 GB894.1-86	2-1.3	2
		Bearing Cover	2-1.4	2
		Snap Ring 35 GB893.1-86	2-1.5	2
		Name Plate	2-2	1
		Rivet 2x6 GB827-86	2-3	4
Hanger Shaft (M=50~220)	3			1

B1. Geared Trolley- A Type

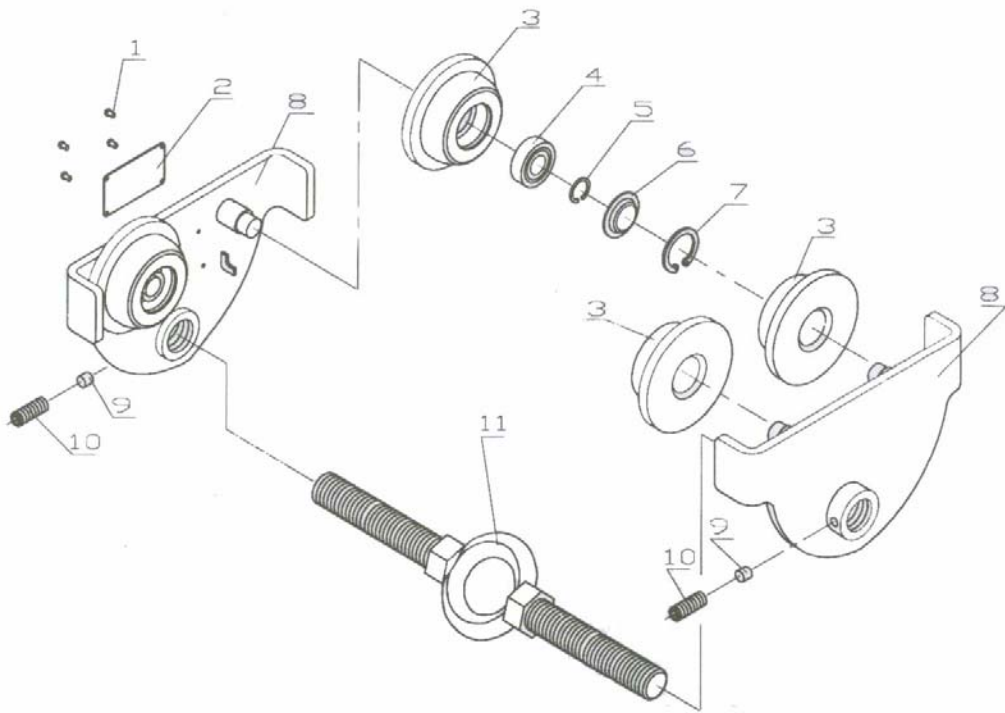


Parts List for the Geared Trolley-A Type

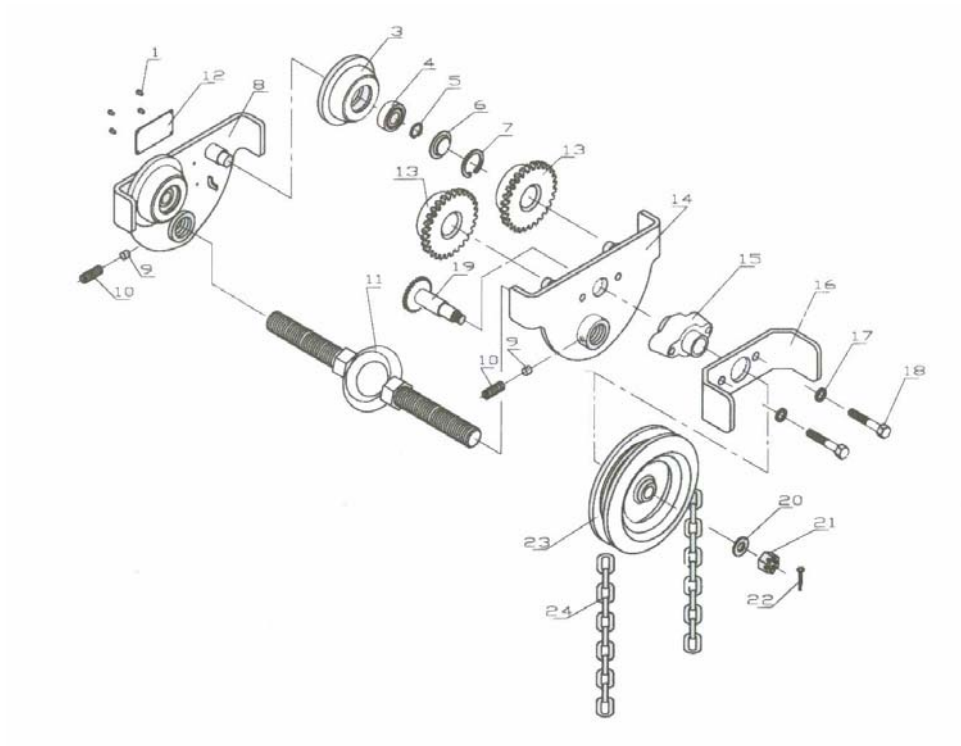
Assembly Name	No.	Part Name	No.	Qty.
Right Plate Assembly	1	Right Plate	1-1	1
		Driving Wheel	1-1.1	2
		Ball Bearing 180202 GB/T276-94	2-1.2	2
		Snap Ring 15 GB894.1-86	2-1.3	2
		Bearing Cover	2-1.4	2
		Snap Ring 35 GB893.1-86	2-1.5	2
		Hand Wheel	1-2	1
		Plain Washer 12 GB97.1-86	1-3	1
		Spring Washer 12 GB859-86	1-4	1
		Thin Castle Nut M12 GB6181-86	1-5	1
		Split Pin 3.2×22 GB91-86	1-6	1
		Driving Shaft	1-7	1
Left Plate Assembly	2	Left Plate	2-1	1
		Driven Wheel	2-1.1	2
		Ball Bearing 180202 GB/T276-94	2-1.2	2
		Snap Ring 15 GB894.1-86	2-1.3	2

Left Plate Assembly	2	Bearing Cover	2-1.4	2
		Snap Ring 35 GB893.1-86	2-1.5	2
		Name Plate	2-2	1
		Rivet 2x6 GB827-86	2-3	4
Hanger Shaft (M=50~220)	3			1
Hand Chain	5			1

A2. Plain Trolley- B Type



B2. Geared Trolley- B Type



Part list for Plain and Geared trolley- B Type

Item	Description	Qty
1	Rivet	4
2	Nameplate (plain trolley)	1
3	Plain Wheel	Plain Trolley 4pcs
		Geared Trolley 2pcs
4	Bearing	4
5	Retaining Ring	4
6	Bearing Cap	4
7	Retaining Ring	4
8	Side Plate Assembly A	Plain Trolley 2pcs
		Geared Trolley 1pcs
9	Bronze Washer	2
10	Locking Screw	2
11	Load Bar	1
12	Nameplate (Geared Trolley)	1
13	Geared Wheel	2
14	Side Plate Assembly B	1
15	Spacer Block	1
16	Guide Plate	1
17	Spring Washer	2
18	Screw	2
19	Driving Spindle	1
20	Spacer Washer	1
21	Hex Castle Nut	1
22	Split Pin	1
23	Chain Wheel	1
24	Hand Chain	1