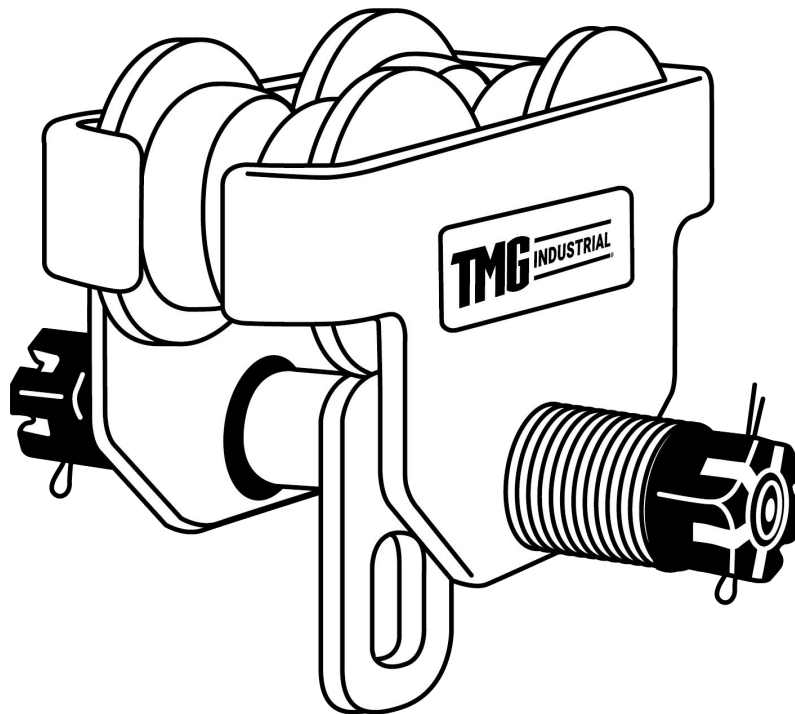
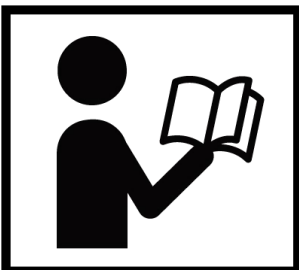


# 4400-LB ADJUSTABLE PUSH TROLLEY



### ⚠ WARNING



- Please read and understand the product manual completely before assembly
- Check against the parts list to make sure all parts are received
- Wear proper safety goggles or other protective gears while in assembly
- Do not return the product to dealer. They are not equipped to handle your requests.

Missing parts or questions on assembly?

Please call: 1-877-761-2819 or email: [cs@tmgindustrial.com](mailto:cs@tmgindustrial.com)

# TABLE OF CONTENTS

IMPORTANT INFORMATION AND WARNINGS.....	3
IMPORTANT SAFETY INSTRUCTIONS.....	3
WARNINGS AND PRECAUTIONS.....	4
PRODUCTS SPECIFICATIONS.....	5
INSTALLATION.....	6
OPERATION.....	7
INSPECTION.....	8
MAINTENANCE.....	10
TROUBLESHOOTING.....	10
PARTS LIST AND EXPLOSION VIEW.....	11

## Conventions used in this manual



### WARNING

---

This indicates a hazardous situation, which, if not avoided, could result in death or serious injury.



### CAUTION

---

This indicates a hazardous situation, which, if not avoided, could result in minor or moderate injury.



### NOTICE

---

This information is important in proper using of your machine. Failure to follow this instruction could result in damage to your machine or property.

## Additional Information and Potential Changes

We reserve the right to discontinue, change, and improve its products at any time without notice or obligation to the purchaser. The descriptions and specifications contained in this manual were in effect at printing. Equipment/Product described within this manual may be optional. Some illustrations may not be applicable to your machine.

# IMPORTANT INFORMATION AND WARNING



## WARNING

- This product should not be installed, operated, or maintained by any person who has not read all the contents of these instructions. Failure to read and comply with these instructions, warnings, or limitations noted might result in bodily injury, death, or property damage.
- Contact the distributor for further explanation if information is not fully understood.
- It is the responsibility of the owner/user to install, test, maintain, and operate these products in accordance with OSHA regulations, other federal, state, and local regulations, and ANSI standards including:
  - ANSI/ASME B30.17/B30.11-Cranes and Monorails(With under-hung Trolley or Bridge)
  - B30.16-Manual/Powered Chain Hoist
  - B30.20-Safety Standard for below the hook lifting devices
  - B30.9- Safety Standard for Slings
  - Other applicable volumes within ANSI/ASME B30
- Do not use these trolleys in conjunction with other equipment unless the system designer, manufacturer installer, or user has put the necessary safety devices in place. Modifications to upgrade or alter these products should only be authorized by the original manufacturer. These trolleys should be used for holding loads only within their load ratings..
- Only trained and qualified personnel shall operate and maintain this equipment.

# IMPORTANT SAFETY INSTRUCTIONS

- Read, understand and follow the safety information contained in these instructions prior to using this tool. Keep these instructions for further reference.
- This manual is a supplement to OSHA and ASME standards. Use this trolley in accordance with ASME B30.17/B30.11.
- Maintain a beam trolley inspection report and inspect the trolley with a frequency compliant with ASME B30.17/B30.11.
- Only trained and qualified personnel shall operate and maintain this equipment.
- Before attaching a below-the-hook lifting device or moving a load, confirm that the beam trolley is in good condition and functioning properly. Never use a beam trolley when malfunction, unusual performance, damage, or extensive wear are found.
- Always operate safely and never lift people or a load over people.
- Never lift loads heavier than the working load limit (WLL) as indicated on the trolley and test certificate.
- Never leave a suspended load unattended.
- Only use this trolley for vertical lifting. Avoid lateral loading the beam trolley.
- Remove all grease, oil, dirt, corrosion and mill scale from the supporting beam at the point where the trolley is to be attached.
- Never modify the beam trolley. Never weld on or drill through any beam trolley parts. Approval from TMG INDUSTRIAL is required for all nonstandard maintenance.
- Use only genuine TMG INDUSTRIAL parts when repairing beam trolleys.
- Never remove or obscure the name plate or other markings on the beam trolley.
- Temperature range: -20°C to +60°C.

# WARNINGS AND PRECAUTIONS

Failure to read and comply with the following warnings may result in a hazardous situation that could lead to death, serious injury, or property damage.

Be sure to properly install, operate, and maintain the trolleys so they do not come off the beam

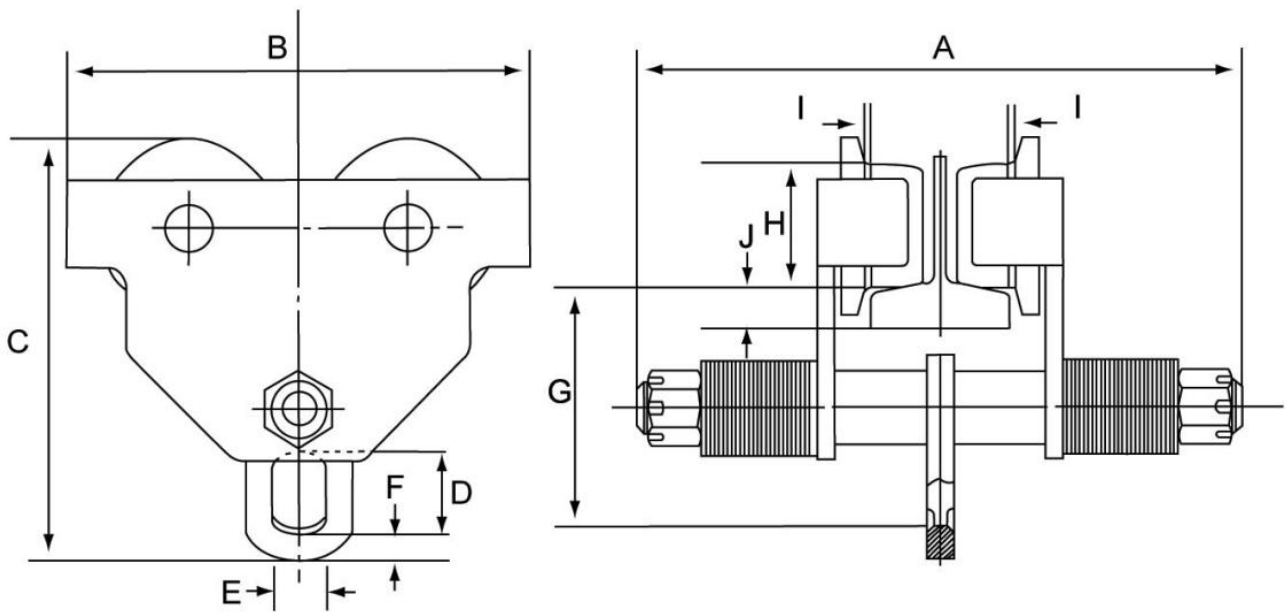
DO	DO NOT
<ol style="list-style-type: none"><li>1. <b>DO</b> read and understand the operator's manual before using trolley.</li><li>2. <b>DO</b> consult Operator's manual or TMG INDUSTRIAL when in doubt.</li><li>3. <b>DO</b> inspect the trolley regularly.</li><li>4. <b>DO</b> use correct trolley for the job.</li><li>5. <b>DO</b> make sure the hoist attached is supported at the hook saddle.</li><li>6. <b>DO</b> store in a no-load condition.</li><li>7. <b>DO</b> report malfunctions or unusual performance of the trolley and remove from service until the issues are resolved.</li></ol>	<ol style="list-style-type: none"><li>1. <b>DO NOT</b> lift loads over anyone at anytime.</li><li>2. <b>DO NOT</b> use a trolley that has been overloaded or damaged.</li><li>3. <b>DO NOT</b> side load or swing loads.</li><li>4. <b>DO NOT</b> leave a load suspended without supervision.</li><li>5. <b>DO NOT</b> exceed permitted load carrying capacity.</li><li>6. <b>DO NOT</b> grind, weld or modify the trolley in any way.</li><li>7. <b>DO NOT</b> use the trolley in a way that could result in shock or impact loads being applied to the trolley.</li></ol>



## CAUTION

1. These general instructions deal with the normal installation, operation, and maintenance situations encountered with the equipment described herein. The instructions should not be interpreted to anticipate every possible contingency or to anticipate the final system, crane, or configuration that uses this equipment. For systems using the equipment covered by this manual, the supplier and owner of the system are responsible for the system's compliance with all applicable industry standards, and with all applicable federal, state, and local regulations/codes.
2. Record your beam trolley's model, purchasing date and Serial Number on the front cover of this manual for identification and future reference to avoid referring to the wrong manual for information or instructions on installation, operation, inspection, maintenance, or parts.
3. Use only TMG INDUSTRIAL authorized replacement parts in the service and maintenance of this hoist

# PRODUCT SPECIFICATIONS



MODEL	CAPACITY	A	B	C	D	E	F	G	H	I
TMG-AGT20	2 TON	11"	10-3/4"	9-3/16"	1-3/4"	1-3/8"	1-7/8"	5-1/8"	2-3/4"	1/8"

MODEL	CAPACITY	FLANGE WIDTH	MINIMUM CURVE RADIUS	SHIPPING WEIGHT
TMG-AGT20	2TON	3" - 6-1/2"	43"	30 LBS

# PRE INSTALLATION INSTRUCTIONS

## 1. Preparation For Use

Inspect carefully for any damage that may have occurred during shipping. Check for loose, missing, or damaged parts. Do not install or use a damaged product. Contact TMG INDUSTRIAL if there are any problems.

## 2. Mounting Location

Prior to mounting the trolley (and hoist) ensures that the trolley beam and its supporting structure are adequate to support the trolley, hoist, and its loads. If necessary consult a professional that is qualified to evaluate the adequacy of the suspension location and its supporting structure.

## 3. Adjustment

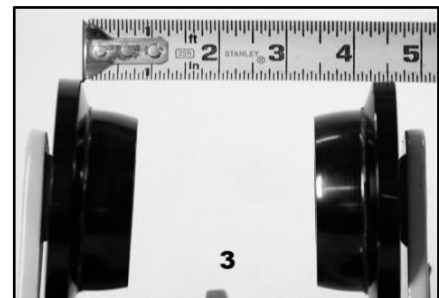
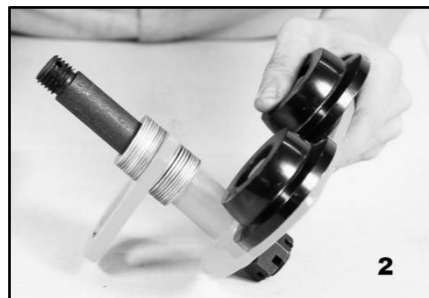
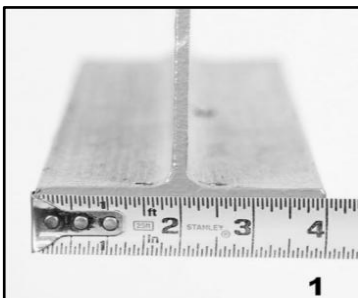
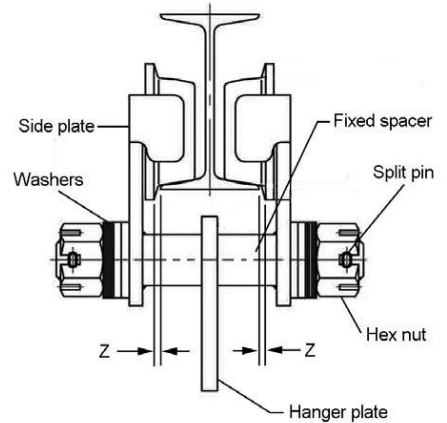
The Push Trolleys are adjustable for operation on a wide range of beam flange (either sloped or flat, like I, S, W beam) widths by arranging the spacer washers. To determine the arrangement of the spacer washers, measure the flange width on which the trolley is to be installed. Trolley must be installed on a beam with minimum clearance (wheels to flange) of 1/16" to maximum of 1/8". Reference "Z" on both sides of the beam. Washers must be moved in sets of two, one on either side of hanger plate, as hanger plate must always remain centered between trolley side plates.

## 4. Installation

Step 1: Measure the width of the runway beam.

Step 2: Assemble the suspension plate and required number of spacer washers to the inside of the trolley side plates.

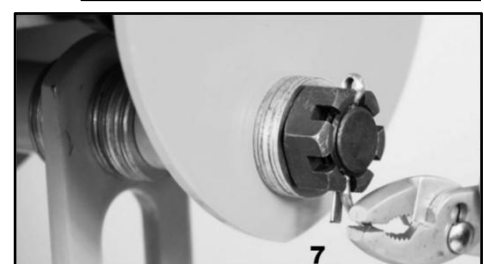
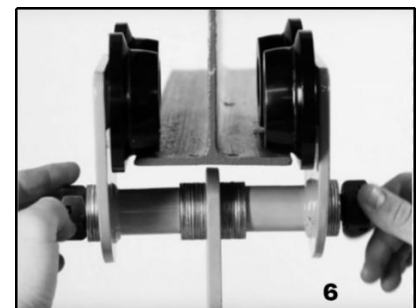
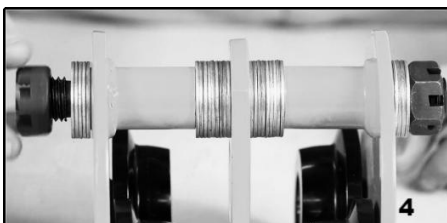
Step 3: The dimension between the trolley wheel flanges should be 1/16" Larger but 1/8" smaller than the beam flange.



Step 4: Assemble the remaining washers to either side of the trolley side plates, and fit the nuts to the hanger pin

Step 5: With the trolley loosely assembled, spread the side plates allowing the trolley wheels to be placed over the beam flange, so that the trolley will properly sit on the beam.

Step 6: Tighten the nuts against the washers.



Step 7: Insert the safety pins that are provided to secure the castle nut.

# OPERATION INSTRUCTIONS

## 1. Operator Requirements

- Read and fully comprehend this entire manual before operation. Operator must be trained in proper trolley operation and dealing with potential malfunctions. Should not operate trolley while under influence of alcohol, medications, or drugs. Should not operate the trolley while tired or distracted. Should not operate trolley if they have a history of seizures or other medical issues that may interfere with operation. Should have proper coordination and vision.

## 2. Pre Operational Checks & Trial Operations

- Record Model, Serial Number, & Purchase Date in the space provided in this manual.
- Perform pre operational checks for the trolley:
  - After trolley installation ensure the side plates are vertical.
  - With hoist installed, verify that hoist is centered below trolley.
  - Confirm the adequacy of the rated capacity for all slings, chains, wire ropes and all other lifting attachments before use.
  - Inspect all load suspension members for damage prior to use and replace or repair all damaged parts.
  - Ensure that trolley is properly installed on the beam, and stops for the trolley are correctly positioned and securely installed on the beam.
  - Ensure that all nuts, bolts, and split pins (cotter pins) are sufficiently fastened.
- Confirm proper operation
  - Before operating ensure that the trolley meets the Inspection, testing and Maintenance requirements of ANSI/ASME B30.16.(trolley can be inspected with the chain hoist at the same time as a whole )
  - Before operating ensure that nothing will interfere with the full range of the trolley's operation.
  - Proceed with trial operation to confirm proper operation.(unloaded and loaded)
  - Operate the trolley through its full range of motion(loaded). Make sure the trolley runs smoothly and does not bind.



## 3. Operation

- Be aware of trolley load capacity and don't overload.
- Attach load to suspension plate directly under the trolley
- Raise a load equal to the lower of the rated capacities of either the trolley or hoist a few inches (cm) off the floor.
- To move an unloaded hoist/trolley, push on the hoist load chain.
- To move a loaded hoist/trolley, push on the load or the hoist load hook shank.
- To prevent tripping over an unseen object injured, please push to move the trolley, do not pull. Pushing will allow you to stay out of the path of the load and also look in the direction you are moving
- When operating the trolley keep load as close to the floor as practical.

# ASME/ANSI/OSHA INSPECTION PROCEDURES

## 1. General

There are two types of inspection: the frequent inspection performed by the operator and periodic inspections performed by personnel trained in inspection and maintenance of the trolley. Careful inspection on a regular basis will reveal potentially dangerous conditions while still in the early stages, allowing corrective action to be taken before the condition becomes dangerous. Any deficiency revealed through inspection must be reported to an appointed person. A determination must be made as to whether a deficiency constitutes a safety hazard before resuming operation of the trolley or hoist.

- **Normal Service** - that distributed service which involves operation with randomly distributed loads within the rated load limit, or uniform loads less than 65% of rated load for not more than 25% of the time.
- **Heavy Service** - that service which involves operation within the rated load limit which exceeds normal service.
- **Severe Service** - that service which involves normal or heavy service with abnormal operating conditions.



### WARNING

New and reinstalled trolley/lifter shall be inspected by a designated person prior to initial use to verify ASME B30. 17 compliance.

Inspection procedures are divided into three categories based upon intervals of inspection.

**Every lift/move:** Visual inspection by the operator before and during use. No written record necessary.

Visual inspection shall include:

1. Surface of the load or trolley parts for scale, grease, oil, paint, water, ice, moisture, dirt and/or coatings
2. Condition and operation of moving/functional parts

**Frequent Inspection:** Visual inspection by operator or designated person depending on use. Records not required.

- Inspection frequency based on use:
  - a) Normal service - Monthly
  - b) Heavy service - Weekly to monthly
  - c) Severe service - Daily to weekly
- Frequent Inspection shall include visual inspection of:
  - a) Inspect in accordance with Every Lift/move guidelines
  - b) Structural members for deformation, cracks or excessive wear on any part of the beam trolley
  - c) Loose or missing guards, fasteners, covers, stops or nameplates
  - d) All functional operating mechanisms for anything interfering with normal operation
  - e) Connection points between trolley and hoist and/or support structure in accordance with ANSI/ASME B30.17
  - f) As a minimum, a monthly inspection of the suspension plate, track wheels and suspension parts nuts should be carried out

**Periodic Inspection:** Visual inspection by a qualified person making dated records or apparent external conditions to provide the basis for a continuing evaluation.

- Inspection frequency based on use:
  - a) Normal service - Yearly
  - b) Heavy service - Semi-annually
  - c) Severe service - Quarterly
- Periodic inspection shall include visual inspection of:
  - a) Inspect in accordance with Every Lift and Frequent Inspection guideline
  - b) Loose bolts or fasteners
  - c) Cracked, worn or corroded parts such as trolley wheels, load shafts, or load shackles
  - d) Evidence of damage to body
  - e) Applicable labels and markings for legibility
- Equipment not in use for more than 1 month must be inspected in accordance with Frequent Inspection criteria.
- Equipment not in use for more than 1 year must be inspected in accordance with Periodic Inspection criteria.

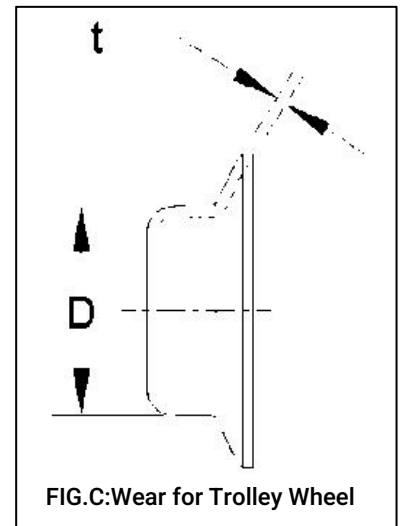
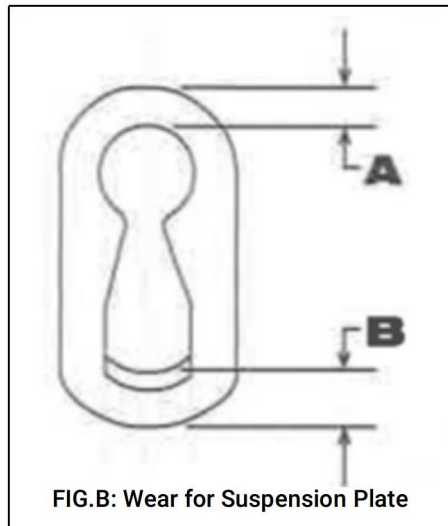
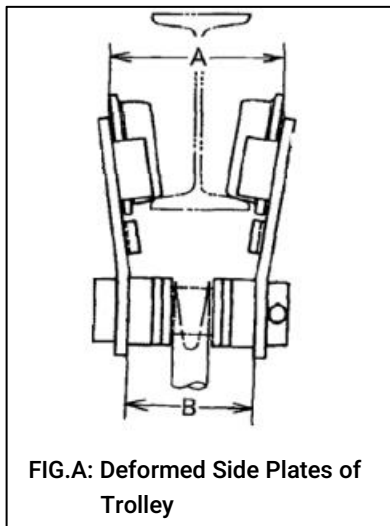


## 2. Records and Reports

- Some form of inspection record should be maintained for each trolley, listing all points requiring periodic inspection. A written report should be made quarterly on the condition of the critical parts (e.g. wheels, bearings, side plates and hoist hanger shaft) of each trolley. These reports should be dated, signed by the person who performed the inspection, and kept on file where they are readily available to authorized personnel.

## 3. Inspection Methods and Criteria

Trolley Inspection Methods and Criteria for Critical Parts			
Item	Method	Criteria	Action
Side Plates	Visual, Measure	free of significant deformation. for 1/2-3Ton trolley, the difference of dimension "A" and "B" should not exceed (3mm). See Fig A	replace
Suspension Shaft	Visual, Measure	Suspension shaft should not be bent. Diameter should not be worn by 10% or more	replace
Suspension Plates	Visual, Measure	Measure the depth of the section at the upper and lower portions of the suspension plate. either should not be worn by 5% or more. See Fig B	replace
Track Wheel - Tread	Visual, Measure	the track wheels should not be loose on the stud, not have indications of cracks and excess wear on tread or flange. Diameter of the inside and outside tread surface should not be less than the discard value ( $\Delta D < 1.5\text{mm}/0.06"$ , $\Delta t < 0.7\text{mm}/0.027"$ ). See Fig C	replace
Bolts, Nuts, Snap Rings, and Split Pins	Visual, Check with Proper Tool	Bolts, nuts, snap rings and split pins should not be loose	Tighten or replaced



# MAINTENANCE INSTRUCTION

## 1. Maintenance & Handling

Proper use, inspections and maintenance will increase the life and usefulness of your equipment. During assembly lubricate gears, nuts, bolts and all machined threads with applicable lubricants. Use of anti-seize compound and/or thread lubricant on cap-screw and nut threaded areas prevents corrosion and allows for ease of disassembly of component.

### Lubrication

- Lubricate the following trolley components with NLGI (National Lubricating Grease Institute) #2 or equivalent grease.
- Suspension Plates, Bolts, and Shafts – Grease at least twice per year for normal usage (more frequently for heavier usage or severe conditions). Do not use an excessive amount of grease and avoid getting any grease on the running surfaces of the track Wheel or the beam.
- Trolley Wheel Bearings do not need to be lubricated and must be replaced if worn or damaged.

### Outdoor Installation

- For trolley and hoist installations that are outdoors, the trolley and hoist should be covered and protected from the weather when not in use.
- Possibility of corrosion on components of the trolley increases for installations where salt air and high humidity are present. The trolley may require more frequent lubrication. Make frequent and regular inspections of the unit's condition and operation.

## 2. STORAGE OF HOIST

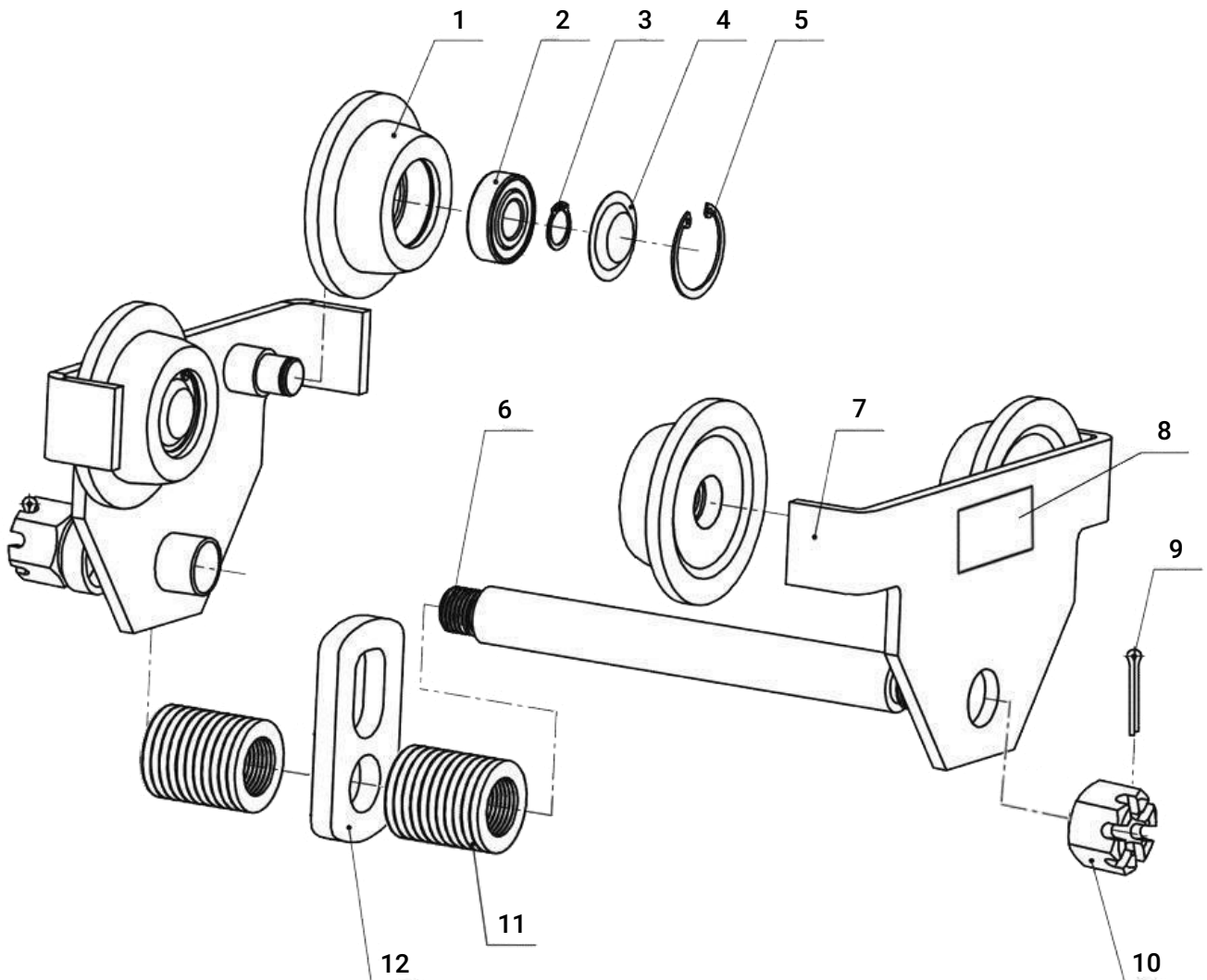
- Store the trolley in a clean dry area. Maintain proper lubrication of the trolley while it is being stored. If the hoist is malfunctioning, clearly mark it before placing it in storage.

# TROUBLE SHOOTING PROCEDURES

CONDITION	PROBABLE CAUSE	HOW TO REPAIR
Trolley does not move smoothly and freely along the traversing beam	<ol style="list-style-type: none"> <li>1. There is obstacle on the traversing beam.</li> <li>2. Running wheels do not run smoothly and correctly (too loose or tight.)</li> <li>3. The running wheel pins are damaged, or the side plates is deformed.</li> <li>4. The spacing of the trolley is not correctly adjusted in relation to the width of the traversing beam. (the gap between beam flange and wheel is too small &lt;math&gt;&lt;1/16''&lt;/math&gt;, or the suspension plate is not centered.</li> <li>5. The curved radius of the traversing beam is not smaller than the technical capacities of the trolley used.</li> <li>6. Curve is distorted or twisted at some point.</li> <li>7. The surface condition of the lower flange of the beam is dirty .</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove the obstacle and clean the traversing beam</li> <li>2. Replace the wheel bearing or the whole wheel</li> <li>3. Replace the broken wheel pin or the side plates</li> <li>4. Readjust the bilateral gap to the same at 1/8" with the suspension plate in the centre</li> <li>5. Choose a right curved beam within the maximum radius the trolley is allowed</li> <li>6. Replace the distorted curve beam</li> <li>7. Clean scale, grease, oil, paint, water, ice, moisture, dirt , coatings etc.</li> </ol>

# PARTS LIST AND EXPLOSIVE VIEW

## Assembly Diagram



## Parts List

PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
1	Wheel	4	7	Side plate	2
2	Bearing 6204	4	8	Name plate	1
3	Snap ring $\varnothing 20$	4	9	Split Pin $\varnothing 4 \times 50$	2
4	Shield	4	10	Nut M24	2
5	Snap ring $\varnothing 47$	4	11	Adjusting washer	54
6	Shaft	1	12	Hanger plate	1