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To The Dealer

Read manual instructions and safety rules. Make sure all items on the Dealer's Pre-Delivery and Delivery Check Lists are completed before releasing equipment to the owner.

The dealer must complete the Warranty Registration found on the Dealer Portal website located at dealer.jm-inc.com. and return it to J&M Mfg. Co., Inc. at the address indicated on the form. Warranty claims will be denied if the Warranty Registration has not been submitted.

EXPRESS WARRANTY:

J&M Mfg. Co., Inc. warrants against defects in construction or materials for a period of ONE year. We reserve the right to inspect and decide whether material or construction was faulty or whether abuse or accident voids our guarantee.

Warranty service must be performed by a dealer or service center authorized by J&M Mfg. Co., Inc. to sell and/or service the type of product involved, which will use only new or remanufactured parts or components furnished by J&M Mfg. Co., Inc. Warranty service will be performed without charge to the purchaser for parts or labor based on the Warranty Labor Times schedule. Under no circumstance will allowable labor times extend beyond the maximum hours indicated in the Warranty Labor Times schedule for each warranty procedure. The purchaser will be responsible, however, for any service call and/or transportation of the product to and from the dealer or service center's place of business, for any premium charged for overtime labor requested by the purchaser, and for any service and/or maintenance not directly related to any defect covered under the warranty. Costs associated with equipment rental, product down time, or product disposal are not warrantable and will not be accepted under any circumstance.

Each Warranty term begins on the date of product delivery to the purchaser. Under no circumstance will warranty be approved unless (i) the product warranty registration card has been properly completed and submitted to the equipment manufacturer, and (ii) a warranty authorization number has been issued by the equipment manufacturer. This Warranty is effective only if the warranty registration card is returned within 30 days of purchase.

This Warranty does not cover a component which fails, malfunctions or is damaged as a result of (i) improper modification or repair, (ii) accident, abuse or improper use, (iii) improper or insufficient maintenance, or (iv) normal wear or tear. This Warranty does not cover products that are previously owned and extends solely to the original purchaser of the product. Should the original purchaser sell or otherwise transfer this product to a third party, this Warranty does not transfer to the third party purchaser in any way. J&M Mfg. Co., Inc. makes no Warranty, express or implied, with respect to tires or other parts or accessories not manufactured by J&M Mfg. Co., Inc. Warranties for these items, if any, are provided separately by their respective manufacturers.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE.

In no event shall J&M Mfg. Co., Inc. be liable for special, direct, incidental or consequential damages of any kind. The exclusive remedy under this Warranty shall be repair or replacement of the defective component at J&M Mfg. Co., Inc.'s option. This is the entire agreement between J&M Mfg. Co., Inc. and the Owner about warranty and no J&M Mfg. Co., Inc. employee or dealer is authorized to make any additional warranty on behalf of J&M Mfg. Co., Inc.

The manufacturer reserves the right to make product design and material changes at any time without notice. They shall not incur any obligation or liability to incorporate such changes and improvements in products previously sold to any customer, nor shall they be obligated or liable for the replacement of previously sold products with products or parts incorporating such changes.

SERVICE:

The equipment you have purchased has been carefully manufactured to provide dependable and satisfactory use. Like all mechanical products, it will require cleaning and maintenance. Lubricate the unit as specified. Observe all safety information in this manual and safety signs on the equipment.

For service, your authorized J&M dealer has trained mechanics, genuine J&M service parts, and the necessary tools and equipment to handle all your needs.

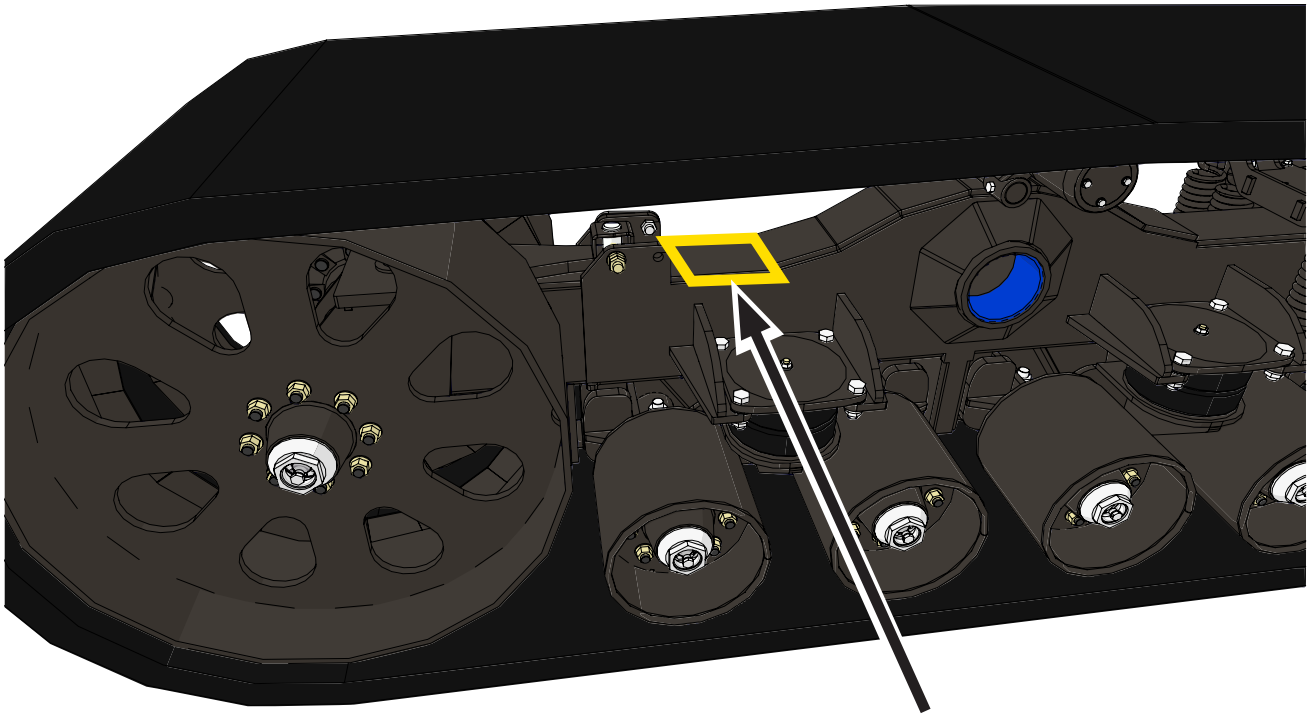
Use only genuine J&M service parts. Substitute parts may void warranty and may not meet standards required for safety and satisfactory operation. Record the model number and serial number of your equipment in the spaces provided:

Model No: _____ **Serial No:** _____ **Date of Purchase:** _____

Purchased From: _____

Provide this information to your dealer to obtain correct repair parts.

Serial Number



Serial Number Location

Serial Number: _____

Model Number: _____

Standard practice when ordering parts or obtaining information from your dealer requires the serial number and model number. Have numbers available before making contact.

Specifications



Model 36145-STX

Track Specification	Full Cart
Belt Width	36"
Idler Wheel Width	32.6"
Overall Length	145.40"
Weight (Single Track)	5,850
Footprint Dimensions (One Track)	36" x 104.4"
Footprint Area (Both Tracks)	7,517 in ²
Avg. Ground Pressure with 1,500 Bushel Cart	13.8 psi
Pivot Shank	6" Dia.



Model 46151-STX

Track Specification	Full Cart
Belt Width	46"
Idler Wheel Width	42.6"
Overall Length	151.25"
Weight (Single Track)	8,000
Footprint Dimensions (One Track)	46" x 108.1"
Footprint Area (Both Tracks)	9,942 in ²
Avg. Ground Pressure with 2,000 Bushel Cart	14.1 psi
Pivot Shank	7" Dia.

General Information

TO THE OWNER:

The purpose of this manual is to assist you in operating and maintaining your tracks in a safe manner. Read it carefully. It furnishes information and instructions that will help you achieve years of dependable performance and help maintain safe operating conditions. If this machine is used by an employee or is loaned or rented, make certain that the operator(s), prior to operating:

1. Is instructed in safe and proper use.
2. Reviews and understands the manual(s) pertaining to this machine.

Throughout this manual, the term **IMPORTANT** is used to indicate that failure to observe can cause damage to equipment. The terms **CAUTION**, **WARNING** and **DANGER** are used in conjunction with the Safety-Alert Symbol, (a triangle with an exclamation mark), to indicate the degree of hazard for items of personal safety. When you see this symbol, carefully read the message that follows and be alert to the possibility of personal injury or death.



This Safety-Alert symbol indicates a hazard and means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



DANGER

Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.



WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed.



CAUTION

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.

IMPORTANT

Indicates that failure to observe can cause damage to equipment.

NOTE

Indicates helpful information.

Bolt Torque Chart

Always tighten hardware to these values unless a different torque or tightening procedure is listed for specific application. Fasteners must always be replaced with the same grade as specified in the manual parts list. Always use the proper tool for tightening hardware. Make sure fastener threads are clean and you start thread engagement properly. **Use these values when tightening all bolts and nuts with the exception of wheel nuts.**

SAE Fasteners

Coarse Thread Series				
Diameter and Pitch (Inches)	Grade 5		Grade 8	
	Dry	Oiled	Dry	Oiled
1/4"-20	8 ft-lbs	6 ft-lbs	12 ft-lbs	9 ft-lbs
5/16"-18	17	13	25	18
3/8"-16	31	23	44	33
7/16"-14	49	37	70	52
1/2"-13	75	57	106	80
9/16"-12	109	82	154	115
5/8"-11	150	113	212	159
3/4"-10	267	200	376	282
7/8"-9	429	322	606	455
1"-8	644	483	909	681
Fine Thread Series				
Diameter and Pitch (Inches)	Grade 5		Grade 8	
	Dry	Oiled	Dry	Oiled
1/4"-28	10 ft-lbs	7 ft-lbs	14 ft-lbs	10 ft-lbs
5/16"-24	19	15	27	20
3/8"-24	35	26	49	37
7/16"-20	55	41	78	58
1/2"-20	85	64	120	90
9/16"-18	121	91	171	128
5/8"-18	170	127	240	180
3/4"-16	297	223	420	315
7/8"-14	474	355	669	502

Stud and Wheel Nut Torque Specifications

Always tighten hardware to these values unless a different torque or tightening procedure is listed for specific application. Fasteners must always be replaced with the same grade as specified in the manual parts list. Always use the proper tool for tightening hardware. Make sure fastener threads are clean and you start thread engagement properly. **Use these values when tightening all studs and wheel nuts.**

Stud	Tightening Torque
1/2"-20	120 ft-lbs
9/16"-18	170 ft-lbs
5/8"-18	300 ft-lbs
3/4"-16	400 ft-lbs
20mm	475 ft-lbs
22mm	640 ft-lbs

TIGHTENING WHEEL NUTS: Standard **3/4" wheel studs and serrated flange nuts should be tightened to torque 360 ft-lbs** during initial operation of the tracks and then checked for proper torque after every 10 hours of use. Failure to do so may damage wheel nut seats. Once seats are damaged, it will become impossible to keep nuts tight.

Safety Rules



Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be erased by an operator's single careless act. In addition, hazard control and accident prevention are dependent upon the awareness, concern, judgment, and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

Make certain that the operator(s), prior to operating is instructed in safe and proper use and reviews and understands the manual(s) pertaining to this machine. Also make certain that the operator(s) reviews and understands the operator's manual of the grain cart and the tractor.

Read this manual before you operate this machine. If you do not understand any part of this manual, or need more information, contact the manufacturer or your authorized dealer.



Understand that your safety and the safety of other persons is measured by how you service, and operate this machine. Know the positions and functions of all controls before you try to operate them. Make sure to check all controls in a safe area before starting your work.

The safety information given in this manual does not replace safety codes, federal, state or local laws. Make certain your machine has the proper equipment as designated by local laws and regulations.

A frequent cause of personal injury or death is from persons falling off equipment and being run over. Do not permit persons to ride on this machine.

Travel speeds should be such that complete control and machine stability is maintained at all times. Where possible, avoid operating near ditches, embankments and holes. Reduce speed when turning, crossing slopes and rough, slick or muddy surfaces. If a ditch must be crossed, do so at an angle. Avoid sharp turns to maximize the stability of the road. Reduce speed when turning, crossing slopes and rough, slick or muddy surfaces. Avoid running over hard objects protruding above the ground surface, if possible. Damage to the understructure or load may result. If the object is unavoidable, reduce speed.

Collision of high speed road traffic and slow moving machines can cause personal injury or death. Keep hands, feet, hair and clothing away from moving parts while unit is in operation. Make sure that everyone is clear of equipment before applying power or moving the machine.

Never adjust, service, clean, or lubricate track system until all power is shut off. Support equipment and attachments properly when working beneath them. Do not depend on hydraulic cylinders to hold them up. An attachment can fail if a control is moved, or if a hydraulic line breaks. Wear protective glasses when servicing equipment.

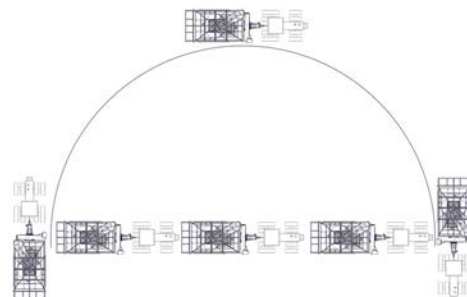
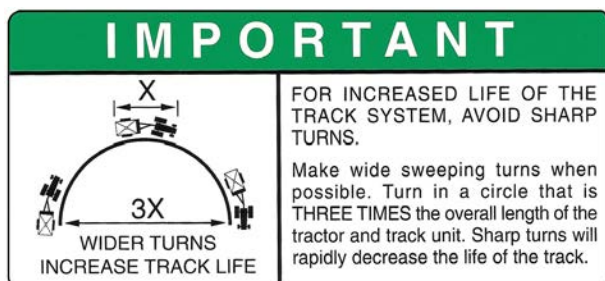
Decals



#	Description	Part. No.
1	Small J&M Decal	JM0015150
2	Front Decal Right	JM0041711
3	Front Decal Left	JM0041710
4	Stabilizer Trax Decal	JM0043919
5	Warning Keep Lug Nuts Tightened	JM0010150

Lubrication Schedule

IMPORTANT: To maximize the life of your track system, it is recommended that wide turns be consistently made whenever possible. Turning in a circle that is **THREE TIMES** the overall length of the tractor and track unit will reduce premature wear on the belt and undercarriage.



Lubrication Service Schedule

IMPORTANT: Check the oil level in the hubs by looking through the dust cap sight glasses. The oil level should be maintained between the top and bottom of the 1-1/4" diameter threaded portion of the spindle (as pictured below). If the oil is below the bottom of the threaded portion of the spindle, add a GL-5 SAE 75W-90 synthetic gear oil with rust and oxidation inhibitors. Change the oil in the hubs annually. If the old oil is observed to still be in good operating condition (clean and unstained) after successive oil changes, the frequency of oil changes may be reduced to bi-annually at the owner's discretion. When changing oil, add 11 oz of oil.



The Oil Bath Hub oil level should be checked before and after daily operations.

Change oil annually.

Bearings/Bushings on longitudinal guide rollers, transverse guide rollers, track shank, track tensioner pivots, and upper mid-rollers are "maintenance-free." These bearings/bushings do not require lubrication prior to or during operation. These bearing/bushings should be checked annually for wear, fit, and function. See the "Service" section portion of the manual for more information. If any maintenance free bearings are replaced, initial greasing of the bearing and pin surface is recommended to ease installation and extend bearing life.

Routine Maintenance

⚠ WARNING: When Servicing The Track System, Be Certain All Power To Grain Cart Is Shut Off.

Check the oil level of wheel hubs by looking through the dust cap sight glasses (inner and outer hubs). If oil is needed use 80/90 weight gear oil that has a rust preventive additive. The Napa number is STA-LUBE GL5 80/90 WT with FL 2472 Rust Inhibitor.

Lubricate track system according to "Lubrication Schedule."

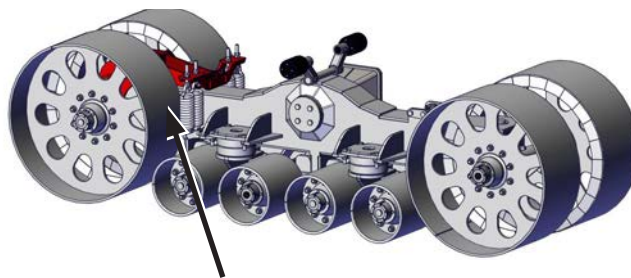
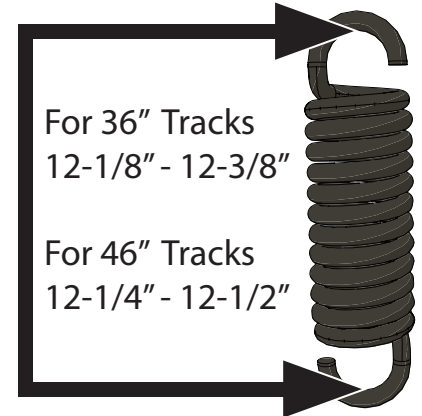
Check the track system periodically for cracks in welds and for other structural damage. Have cracked welds fixed immediately. Failure to do so could result in extensive damage to the track system and grain cart and greatly reduce the life of the equipment.

Check the length of the tensioner springs. (See image for dimensions & location.) If the tensioner spring length(s) are too short or too long, loosen the 3/4" hex nuts on each spring with (2) 1-1/8" wrenches. Loosen or tighten the bottom hex nuts as needed so that each spring is the desired length. Tighten together the 3/4" hex nuts on each spring once adjustments have been completed.

Inspect the belt for any defects. If any defects are found contact the J&M Service Department.

Check the wheel hubs and make sure the 3/4" lugnuts are torqued to 400 ft. lbs. Check the lug nuts after the first hour of operation, then every 10 hours of operation for the first 40 hours of use. These nuts must be kept tight at all times. Wheels that are improperly installed/not properly maintained, resulting in failure, will nullify the warranty and shift the burden of liability to the owner/operator of the equipment.

Remove debris buildup from the surface of idler wheels. Debris buildup on the surface of idler wheels can cause the belt to become overly tensioned, leading to damage to the tensioner system as well as to the idler wheel assemblies. Also, remove debris buildup from below the tensioner lever arm. Debris buildup below the tensioner lever arm could interfere with the tensioner system, causing reduced belt tension. Damage done to the track system as a result of debris build-up is not covered under warranty.

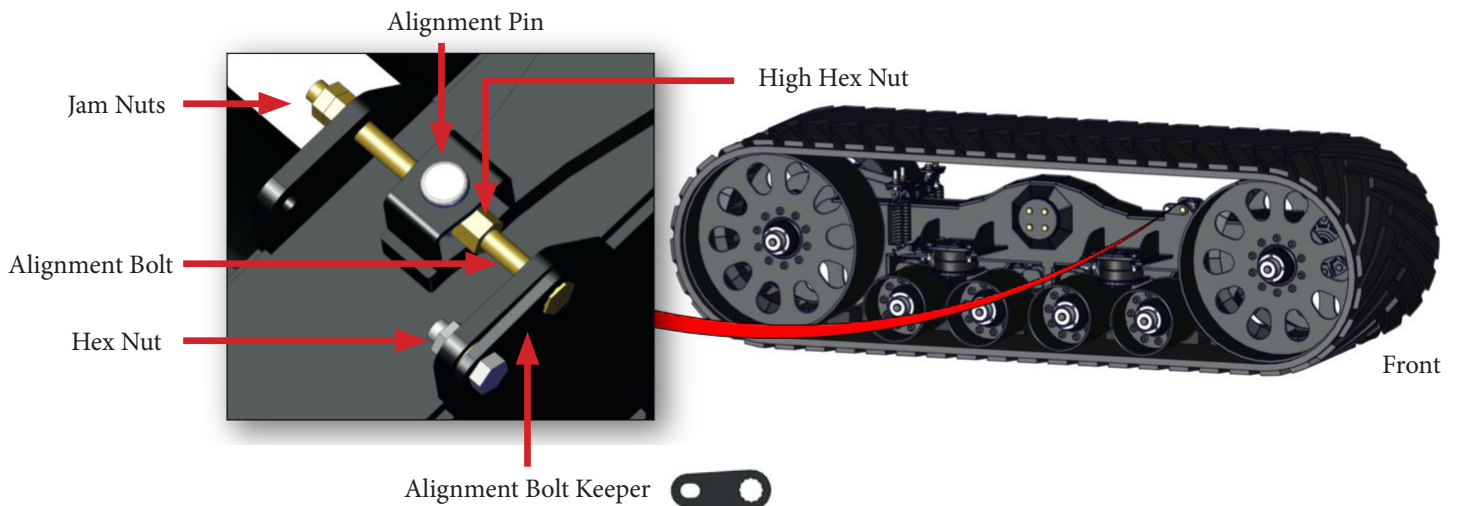


Remove any debris below the Tensioner Lever Arm.

Alignment

Misalignment of the rubber tracks can be corrected by adjusting the front alignment weldments. Track alignment is set at the factory but may need further adjustment. Rubber tracks require a run-in period to properly seat. More adjustments may be necessary for the first week or two. It is normal for tracks to favor one side or the other depending on ground condition, contour and carrying weight. If after the first load you feel heat on the side of the Guide Lugs, follow the instructions below. (Note that all nuts and bolts for the alignment adjustment are 3/4" in diameter and require 1-1/8" wrenches.) If an adjustment is made, check again after another couple of miles. Continue the process until no adjustment is needed. If pulling a long distance, it may be helpful to use some talc to lubricate the rubber guide lugs and help cool the track.

Note: **Do not loosen the jam nuts** on the far side of the alignment bolt at any point during the adjustment process. They should remain jammed at all times such that there is no gap between the alignment bolt head and the undercarriage beam side or between the alignment bolt jam nuts and the undercarriage beam side. If the jam nuts do loosen or if a gap does develop, tighten the alignment bolt until there is no gap on either the bolt head side or the jam nut side. Then tighten another 1/8" turn and tighten the jam nuts together.



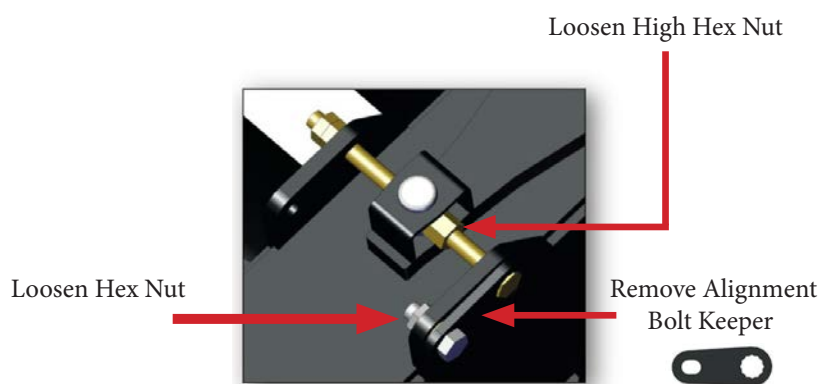
Alignment

- **Remove Bolt Keeper**

Loosen hex nut on the alignment bolt keeper. Remove the alignment bolt keeper from the alignment bolt.

- **Loosen High Hex Nut**

Loosen the high hex nut on the alignment bolt from the alignment pin.

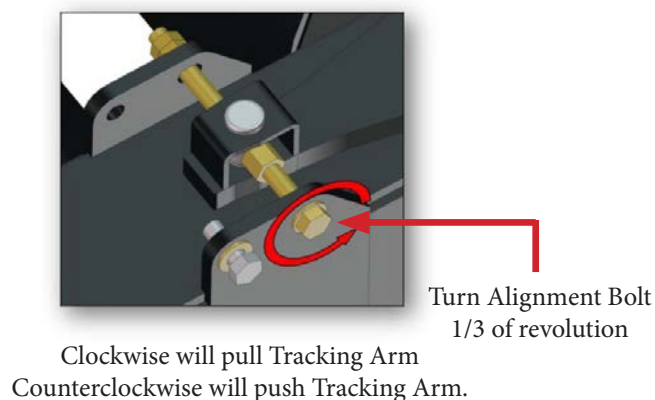


- **Alignment Correction**

Correct the alignment by moving the Tracking Arm with the alignment bolt. Turn the alignment bolt 1/3 turn in the direction that moves the alignment paddle handle towards the guide lugs that have more heat.

- **Replace Bolt Keeper**

Place the alignment bolt keeper back on the alignment bolt. Tighten the hex nut on the alignment bolt keeper.

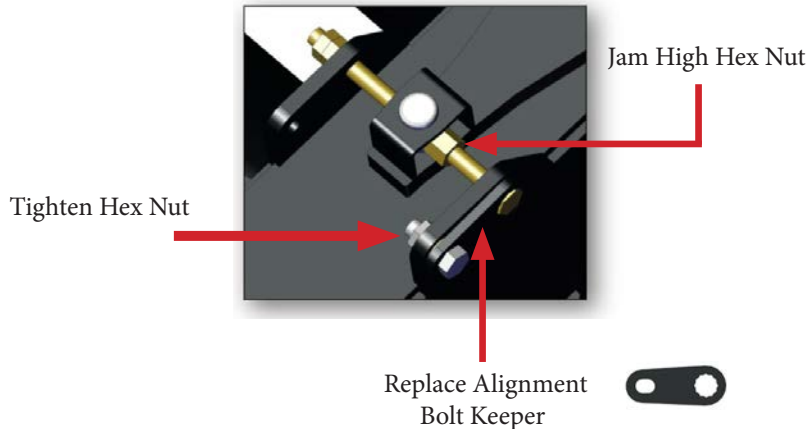


- **Tighten High Hex Nut**

Tighten and lock the high hex nut on the alignment bolt against the alignment pin.

- **Check Alignment**

Check the alignment. Pull the track a short, straight distance on flat ground. Feel the Guide Lugs for heat. If the Guide Lugs on the rubber belt stay cool, the belt is properly aligned.



Service

BELT INSPECTION

The rubber track is composed of several layers of cable, similar to the cables used in automotive tires. The most important set of cables are located about 8 mm (0.3 in.) beneath the inside surface of the track. This set of cables, called zero degree cables, withstands track tension. Other cables, called breaker cables, are located between the zero degree cables and the outside surface of the track. These are laid in various angles to provide lateral support and to protect the zero degree cables.

When any of the cables are exposed to moisture by cuts or gouges in the rubber, they can deteriorate by rusting. Because of this, any exposed cables should be repaired as soon as possible. Any damaged zero degree cables that protrude above the surface of the track should be clipped or ground down to below the surface of the track to prevent additional damage due to unraveling. Cuts, gouges and minor wear on guide lugs are not expected to cause operational problems. However, a track that has two or more consecutive guide lugs missing should be replaced/repared since this could lead to improper tracking, possibly damaging other undercarriage components.

ROTATE TRACKS

If one track belt becomes more worn than the other due to certain operating conditions (e.g., side hill operation or frequent travel on crowned roads), rotating the track assemblies from one side of the cart to the other may increase the service life of the tracks.

STORAGE PREPARATION

IMPORTANT: When the track system is not going to be used for a length of time, store the tracks in a dry, protected place. Leaving your track system outside, open to the weather, will shorten its life. Park the track system on level ground. Block the front and rear of the belts to prevent the tracks from rolling unexpectedly. Inspect the track system and touch-up spots where the paint has been worn away (use a good quality primer paint).

To maximize the life of the rubber springs, do not store grain in the cart when the cart is in storage.

REMOVING FROM STORAGE

1. Inspect rubber belt for cuts or gouges and repair any damaged cables.
2. Check for missing or damaged guide lugs and replace as necessary.
3. Check the seals for wear and replace if necessary.
4. Check the wheel lugnuts and make sure the nuts are properly torque to 400 ft.-lbs.
5. Check level of oil in each Oil Bath Hub.

HOW TO FLUSH THE OLD OIL OUT OF THE OIL BATH HUBS

1. Roll the hub until the fill plug is on top.
2. Drain the hub by removing the cap.
*There is no need to tilt the track, the oil will flow through the bearing easily.
3. Replace cap. Torque cap to 30-40 ft-lb.

HOW TO ADD OIL TO OIL BATH HUBS

1. Remove the fill plug.
2. Use an oiler hand pump to add a GL-5 SAE 75W-90 synthetic gear oil with rust and oxidation inhibitors. When empty, it takes **11 oz of oil** to fill hubs to recommended level.
3. Replace the fill plug. Use PTFE tape on the fill plug threads for a tight seal.



When performing maintenance work, wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing and head. Follow Operator's Manual instructions to ensure safe and proper maintenance and repair.

Your local, authorized dealer can supply genuine replacement parts. Substitute parts may not meet original equipment specifications and may be dangerous.

BE CERTAIN THAT ALL POWER IS SHUT OFF TO THE GRAIN CART BEFORE PERFORMING ANY MAINTENANCE OR REPAIR WORK.

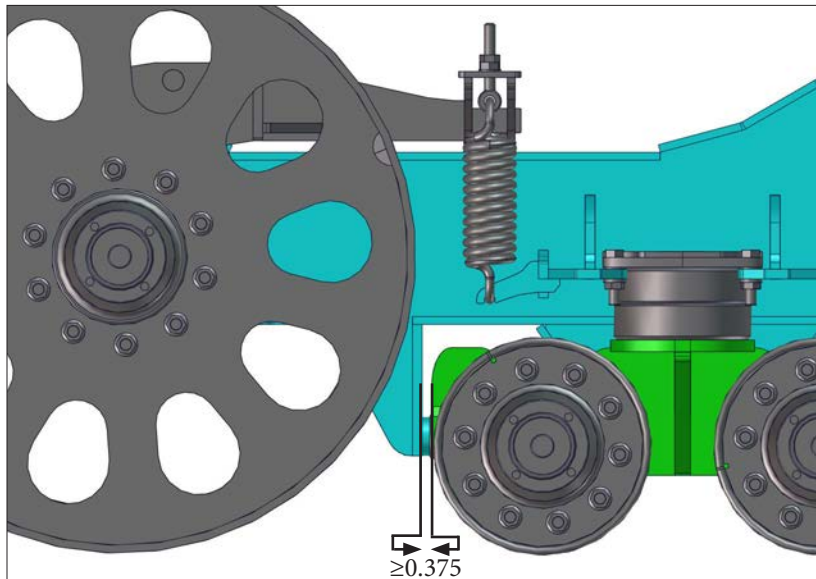
REMOVING FROM STORAGE

1. Inspect rubber belt for cuts or gouges and repair any damaged cables.
2. Check for missing or damaged guide lugs and replace as necessary.
3. Check the seals for wear and replace if necessary.
4. Check the wheel lugnuts and make sure the nuts are properly torque to 400 ft.-lbs.
5. Check level of oil in each Oil Bath Hub.
6. Check the distance between the bottom of the track bogie wheels and the bottom of the track idler wheels on a flat, hard surface with the grain cart empty. If the bogie wheels are $\leq 2"$ below the idler wheels, the rubber spring suspension system may need adjusted. Contact the J&M Service Department if adjustment appears needed.
7. Inspect upper midrollers for free rotation (when not in contact with the track belt) and quiet, smooth operation. Contact the J&M Service Department if midroller bearings need replaced.
8. Inspect spindle shank bearings for excess wear. Contact the J&M Service Department if bearings need replaced.
9. Inspect tensioner pivot pin bearings for excess wear. Tensioner pin slop is an indication that excess bearing wear may be present. Contact the J&M Service Department if bearings need replaced.
10. Inspect longitudinal and transverse guide rollers for exterior roller wear. The following measurement indicate that guide rollers should be replaced:

Roller	Replace if Roller Diameter Less Than:
Longitudinal Guide Roller	2.875"
Transverse Guide Roller	2.375"

Make sure all rollers spin freely when not in contact with the floating bogie weldments. Inspect longitudinal and transverse guide roller bushings for excess wear. Pin slop is an indication that excess bushing wear may be present. Replace rollers with bushings having excess wear.

Note: The distance from the Floating Bogie Weldment to the UC Beam Weldment should be $\geq 0.375"$. If this distance falls below 0.375" at any point during operation of the track system, inspect the transverse guide rollers for exterior or bushing wear.



UC Beam Weldment
Floating Bogie Weldment

Installation

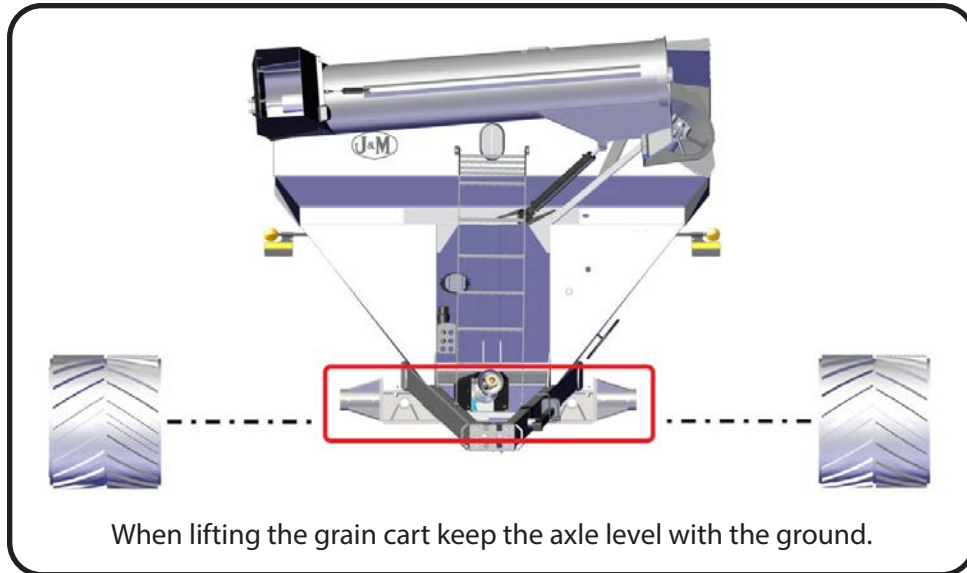
Step 1

46" - Install both spindles. Use (2) 1-1/4" x 11" Hex Bolts and (2) 1-1/4" Centerlock Hex Nuts to attach the shank to the axle. Slip the 7" Rubber O-ring onto the spindle.

36" - Install both spindles. Use (2) 1-1/4" x 9" Hex Bolts and (2) 1-1/4" Centerlock Hex Nuts to attach the shank to the axle. Slip the 6" Rubber O-ring onto the spindle.

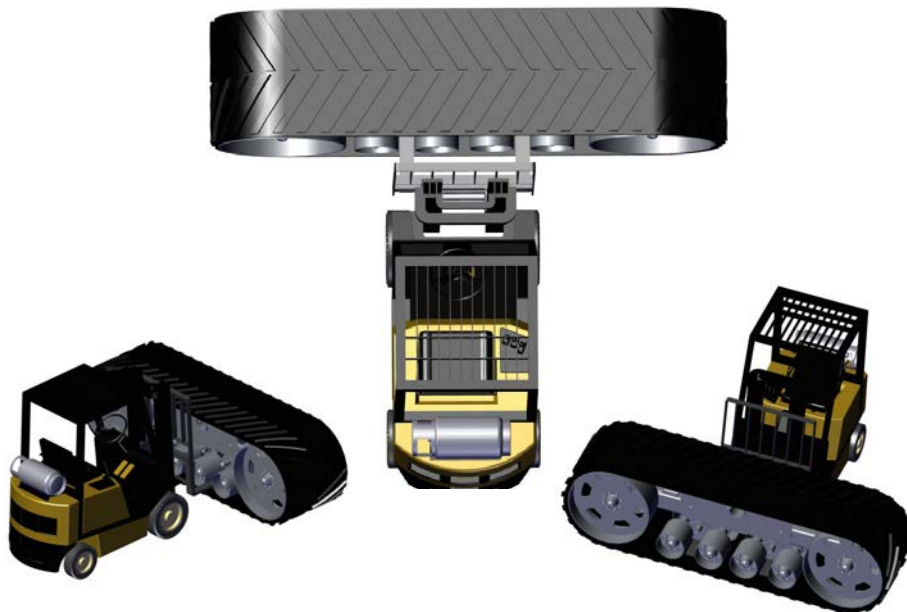
Step 2

Use an overhead hoist to pick up the grain cart. Use a hoist and chains that are rated for the specific weights. The weights are located in the grain cart manual. When raising the grain cart keep the axle level with the ground.



Step 3

Pick the Tracks up with a fork lift. Put both of the forks in-between two bogie wheels. It is recommended to use a forklift with the side shift option available. Use a fork lift that is rated for at least 6,000 lbs for the 36" tracks and 8,000 lbs for the 46" tracks.



Installation

Step 4

Slide the tracks onto the spindle. Be sure to center the track bushings with the spindle prior to attempting to slide the track on so that no damage is done to the bushing's liner. Grease both the bushing liner and the spindle prior to assembly.

Step 5

46" - Slip the 7" Rubber O-Ring onto the spindle, pushing it up against the track spindle.

36" - Slip the 6" Rubber O-Ring onto the spindle, pushing it up against the track spindle.

Step 6

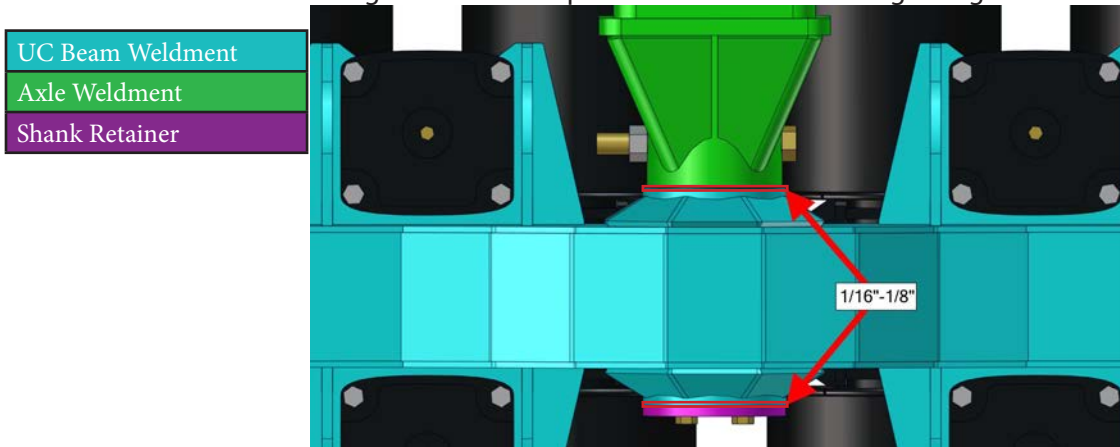
46" - Install the Track Shank Retainer. Use (4) 3/4"-16 x 2" Hex Bolts to fasten the Shank Retainer to the Spindle.

36" - Install the Track Shank Retainer. Use (4) 5/8"-18 x 1-3/4" Hex Bolts to fasten the Shank Retainer to the Spindle.

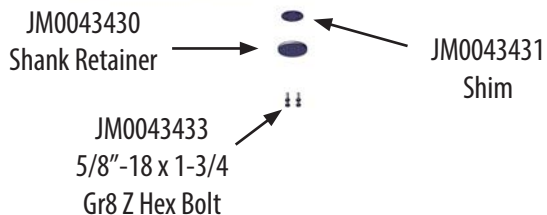
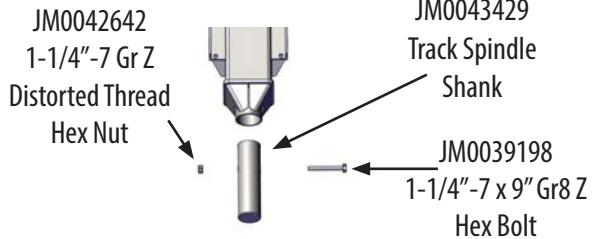
NOTE: In order to allow the track to freely pivot about the spindle shank, a small gap should be present (1/16"-1/8") between the Track UC Beam Spool and the Spindle Shank Retainer or between the UC Beam Spool and the Axle End Cap Spool. If not, install a shim.

Step 7

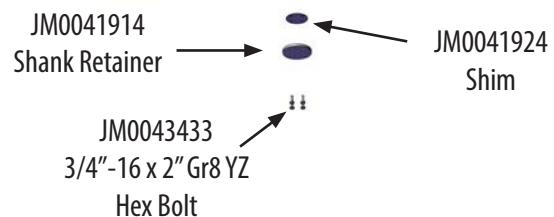
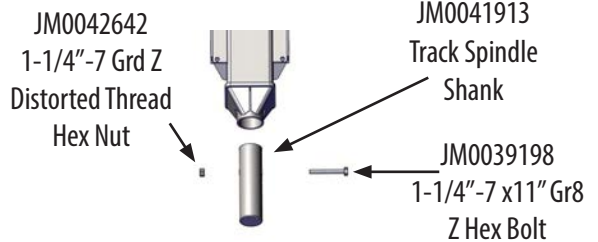
Tighten all of the hardware according to the Bolt Torque Chart located at the beginning of the manual.



36"



46"



Operation Guidelines

The track system offers benefits which can be maximized by following recommended operational practices. In reviewing these guidelines, you will learn the best ways to gain these benefits.

The four basic rules for maximizing track life are:

1. **Follow track break-in procedures**
2. **Verify and maintain alignment**
3. **Understand ways to maximize tread life**
4. **Use correct operational techniques**

By understanding these rules, you learn operational techniques and methods which help achieve years of trouble-free service.

1. TRACK BREAK-IN

Before any road transport is done, especially when new, expose the inside of the tracks to soil, or a dry lubricant. Keep speeds down when breaking in new tracks.

Guide lug life benefits from correct break-in procedures. Correct break-in reduces initial guide lug wear. During the break-in period, rolling components undergo a polishing in process to achieve a smooth steel to rubber interface with the guide lug. Rubber surfaces use dust and dirt as a dry lubricant during break-in to minimize heat and reduce rubber stickiness. New tracks lacking a coating of dust should be exposed to dry and dusty soil conditions as soon as possible. Do not road transport a new track system without first exposing the inside of the track to soil, dirt, or other dry lubricant. Road transport of new rubber without dry lubricant will generate damaging heat and can cause guide lug damage/wear. If roading must be done, then a dry lubricant such as soil, talc, or floor-dry should be applied to the guide lugs periodically during roading until exposure to the field commences.

2. TRACK ALIGNMENT

Monitor track alignment and recheck periodically.

Track alignment is the most important periodic check that can be made on a track system. ALWAYS check alignment very carefully before road transport is done. Alignment can change due to component wear, track damage, operation on sloped surfaces, or following track replacement. Misalignment causes wear to guide lugs, so periodic alignment checks are important. By checking if there is significant difference in surface temperatures or wear between the inner and outer guide lug faces, you can determine if the track is in proper alignment.

Note: *Minimizing guide lug inner/outer temperature difference is the best way to achieve correct alignment.*

3. MAXIMIZE TREAD LIFE

Use care during road transport.

Avoid conditions that cause high tread wear rates.

Several operational factors influence tread wear:

- Amount of roading (roading increases wear)
- Track width (narrower wears faster)
- Field soil conditions (abrasive increases wear)
- Operating weight and distribution
- Operator techniques

Tread life decreases with higher percentages of roading. Tread wear rates can be minimized by staying off pavement, and reducing transport weight and speed. The greatest rate of tread wear occurs on a hot day with a poorly balanced or heavily, loaded system. Always transport during cooler parts of the day and at reduced travel speeds and weight, as this will lower temperatures of the treads, guide lugs, and rolling components. Remember that frequent sharp turning of the track system (i.e. skidding around a tight turn) especially if done on hard surfaces and fully loaded, dramatically increases tread wear, put high stresses on the mechanical components, and could cause the track to derail. Take wide turns whenever possible. V4 tracks are rated up to 25 mph. However, J&M recommends towing an empty grain cart at no faster than 20 mph and a loaded grain cart should not travel faster than 8 mph. Refer to your grain cart operator's manual to understand the maximum speed and duration limitations, as well as the maximum load limitations, while transporting your equipment. Always respect these limits.

4. OPERATIONAL TECHNIQUES

Use recommended practices from J&M to improve track performance.

- Maintain correct track tension. For instructions on adjusting track tension, see "Routine Maintenance" on page 10.
- Proper tension is important for best track performance. Tension can change during service. Improper tension can increase the potential for derailing or untracking, or reduced life of bearings and rolling components.
- Keep material out of the undercarriage. A track system will allow some material to ingest and pass through it, but sharp noncompressible objects cause high localized loads to both track and wheels, which if severe enough, can result in track and wheel damage. Inspect and clean material from the undercarriage before starting work.

Use optimal track and wheel widths

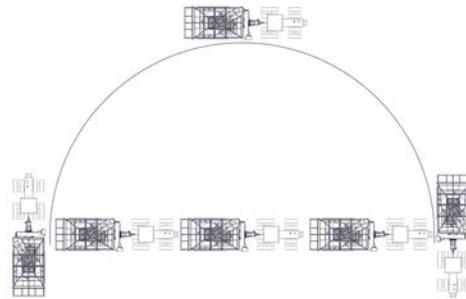
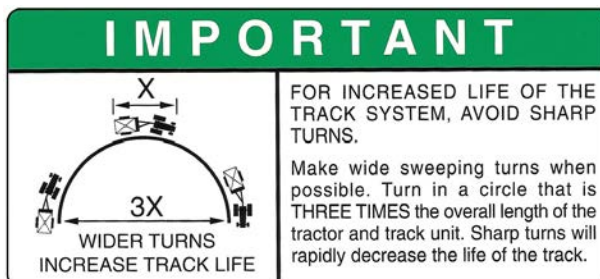
Use recommended track width for the application. Use of wide tracks and wide midrollers increases track and wheel life, resulting in less ground disturbance, better ride, and better ground pressure distribution.

Crossing ditches or diagonal transitions

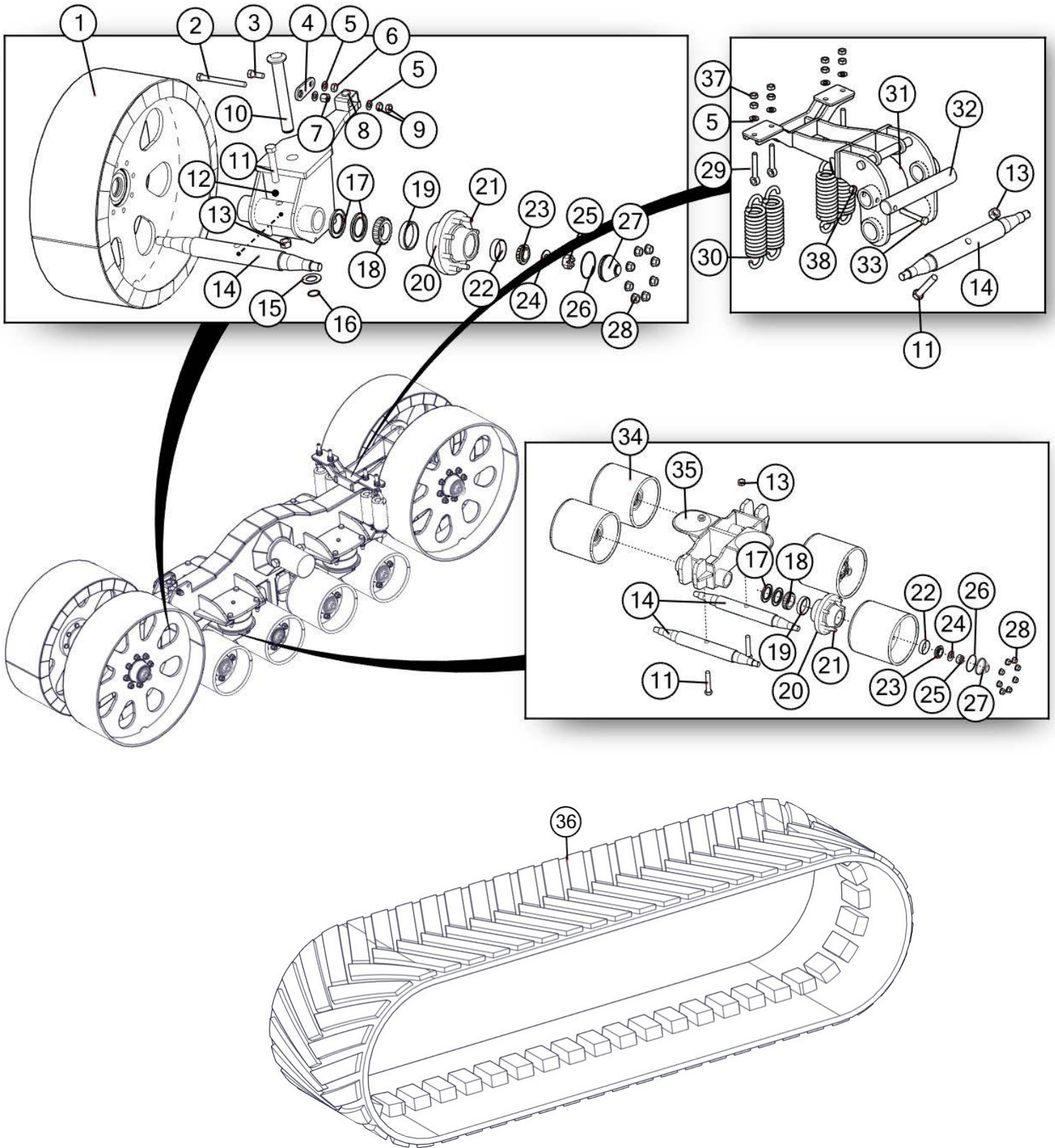
During transitions from sloped to flat areas (or vice versa), the front and rear of the track may be in contact with the ground while the mid-section is unsupported. If turning is attempted at this time, the risk is higher for derailing or misalignment to occur.

Limit sharp turns

When pulling implements with a track system, avoid sharp turns or pivots. Sharp turns cause one or both tracks to slide across the surface resulting in berming, road surface damage, and excessive tread wear. To maximize the life of your track system, it is recommended that wide turns be consistently made whenever possible. Turning in a circle that is **THREE TIMES** the overall length of the tractor and track unit will reduce premature wear on the belt and undercarriage.



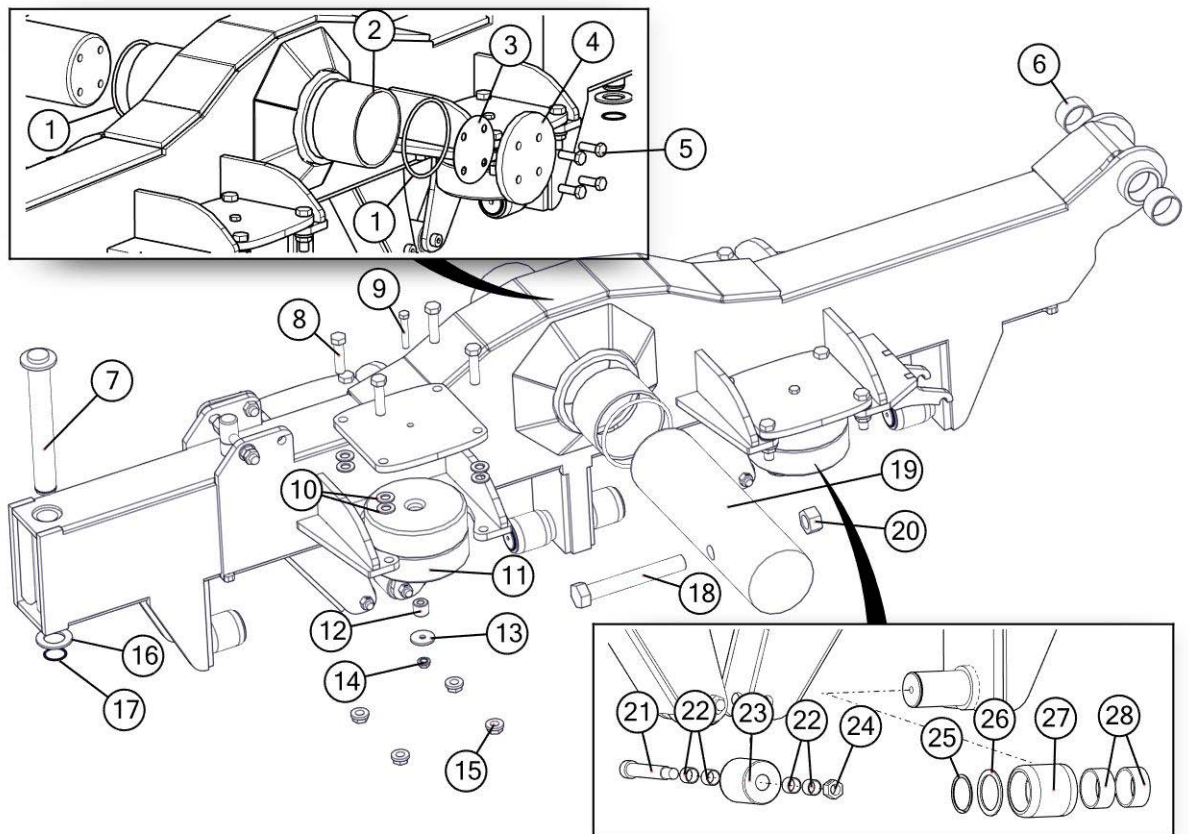
Suspension Tracks 36"



Suspension Tracks 36"

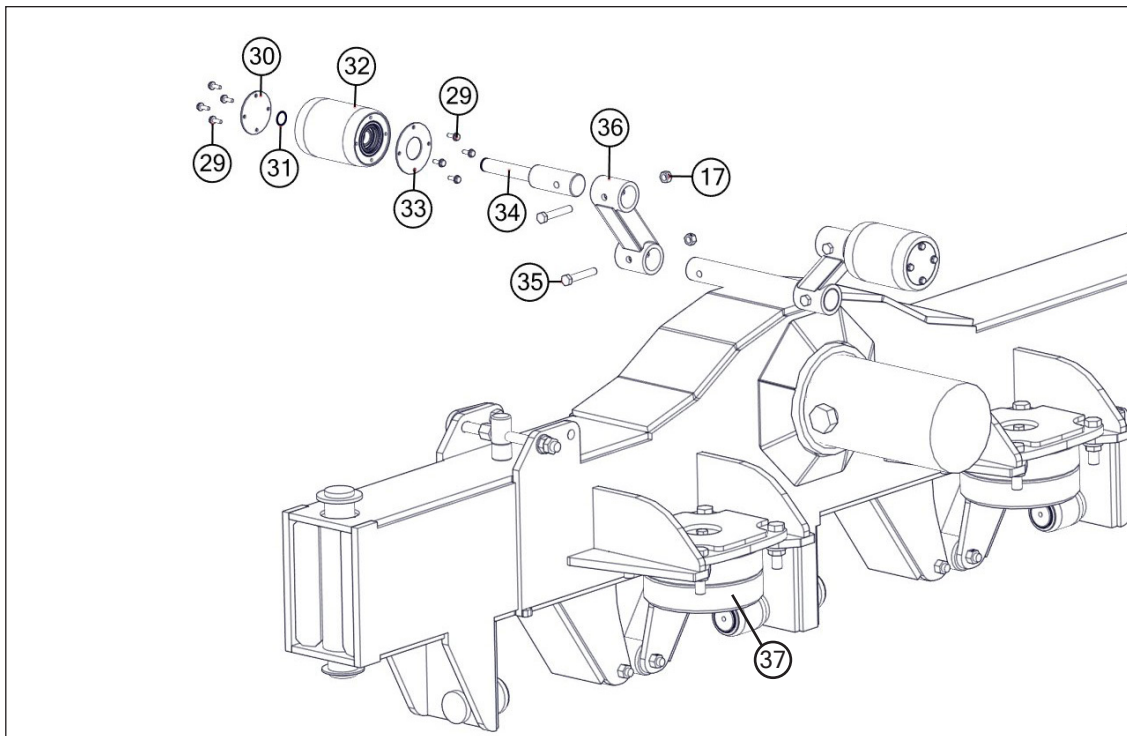
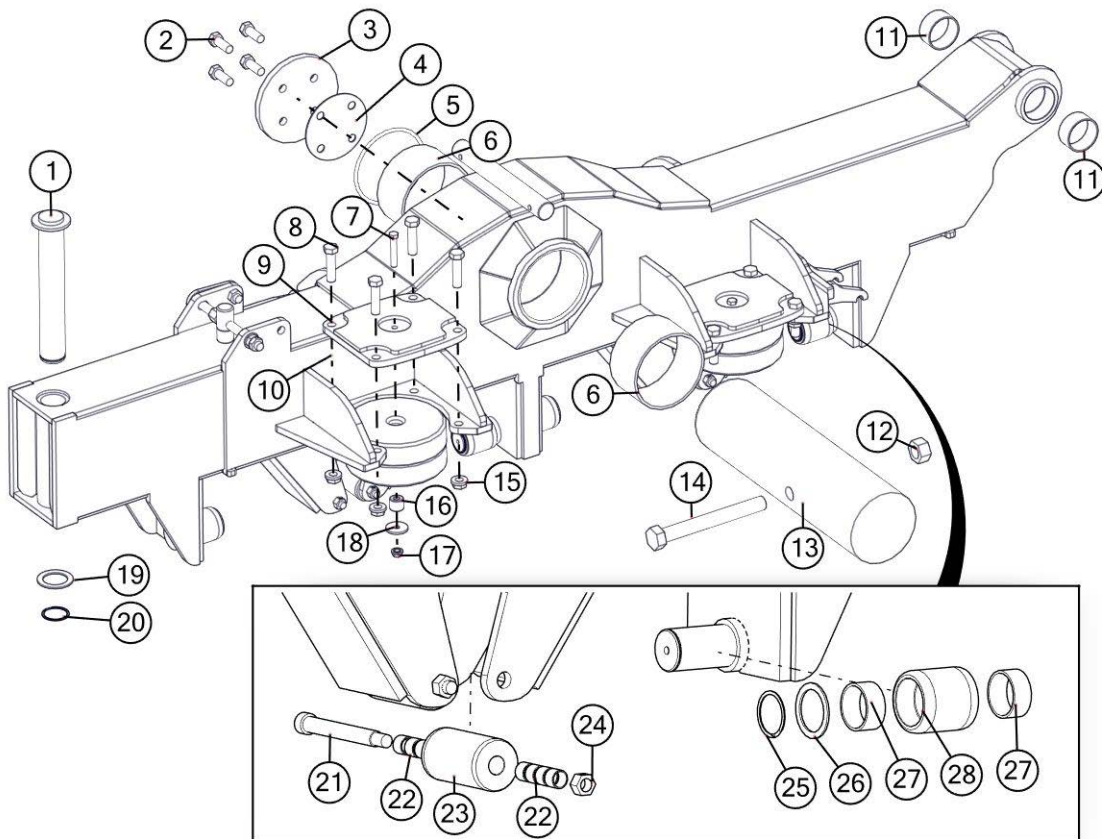
#	Description	Part No.
1	36" Idler Wheel Weldment	JM0042926
2	3/4"-16 x 8" Gr8 Fully-Threaded Z Hex Bolt	JM0038919
3	3/4"-10 x 2" Gr5 Z Hex Bolt	JM0002106
4	Swivel Hitch - Alignment Bolt Keeper	JM0038501
5	3/4" Hardened YZ SAE Flat Washer	JM0042264
6	3/4"-10 Gr5 Z Hex Nut	JM0002125
7	3/4"-16 Gr8 Z High Hex Nut	JM0038709
8	Swivel Hitch - Alignment Pin (1-1/2" Dia. x 3-3/8"L)	JM0038471
9	3/4"-16 Gr8 Z Hex Nut	JM0041245
10	Swivel Hitch Pin Weldment 1-3/4" Dia. x 13-3/8"	JM0043318
11	1"-8 X 5-1/2" Gr5 Z Hex Bolt	JM0002110
12	Track Swivel Hitch Weldment	JM0043313
13	1"-8 Gr5 Z Centerlock Hex Nut	JM0002149
14	Double End Spindle 3" x 29-5/8"	JM0020287
15	Swivel Hitch Pin Washer (2-3/4" O.D.-1-25/32 I.D.)	JM0043322
16	1-3/4" Shaft Diameter Spirolox WSM-175 Retaining Ring	JM0043321
17	Seal ((TC7621143))	JM0020311
18	G848 Large Bearing (G910333)	JM0020306
19	G848 Large Cup (G910331)	JM0020307
20	G848 Hub Assembly - Oil Bath (includes races, studs and nuts)	JM0025743
21	3/4"-16 x 1-3/4" Oil Bath Hub Stud	JM0030051
22	G848 Small Cup (G910352)	JM0020308
23	G848 Small Bearing (G910355)	JM0020305
24	1-1/4" ID x 2-1/2" O.D. x 1/8" ZN USS Flat Washer	JM0020322
25	1-1/4"-12 Gr5 Z Castle Hex Nut	JM0010113
26	Oil Bath Hub Rubber O-Ring	JM0202321
27	Oil Bath Dust Cap for Threaded G848OB Hub	JM0025747
28	3/4"-16 Flange Lugnut	JM0034718
29	3/4"-10 x 5" B7 Z Rod End Eye - Fully Threaded	JM0040917
30	Extension Spring 11.385 x 3.50 OD x .594 Wire	JM0042205
31	Track Tensioner Weldment	JM0043166
32	Tensioner - Pivot Pin (2-1/2" Dia. x 15-1/2"L)	JM0038698
33	3/4"-10 x 5" Gr5 Z Hex Bolt	JM0009997
34	Bogie Wheel Weldment (3/4" Oil Bath)	JM0025750
35	Floating Bogie Weldment	JM0043117
36	36" Rubber Belt x 322"	JM0038769
37	3/4"-10 Gr8 Z Hex Nut	JM0042265
38	3/4"-10 Gr5 Z Centerlock Hex Nut	JM0002147

Suspension Tracks 36"



Suspension Tracks 36"

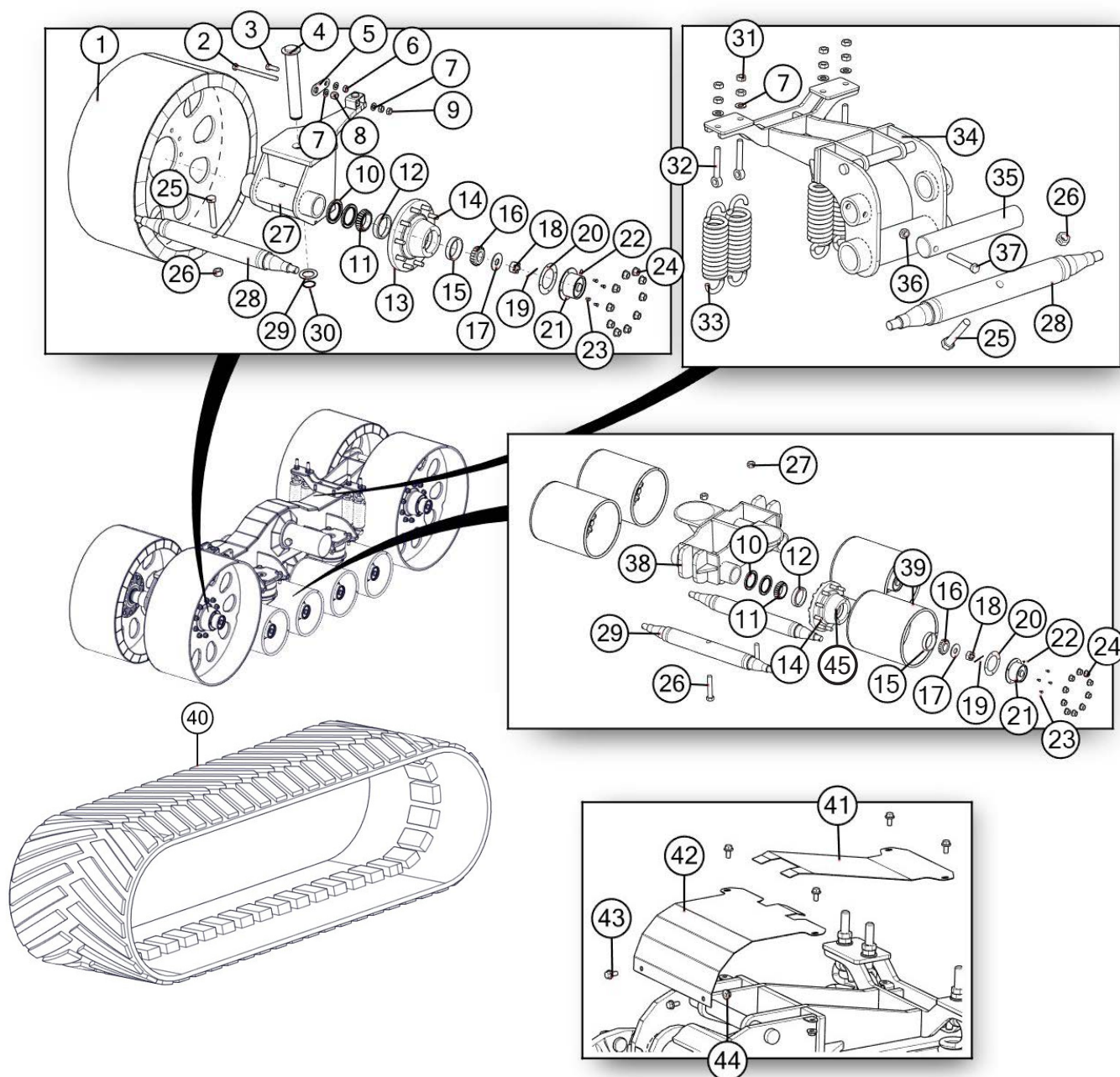
#	Description	Part No.
1	Rubber O-Ring, 6" (6OR-1ST)	JM0020493
2	6" x 6-1/2" x 4" LG Composite Bushing	JM0038700
3	Track Spindle Shank Shim (5-1/2" O.D.)	JM0043431
4	Track Spindle Shank Retainer (7-1/2" O.D)	JM0043430
5	5/8"-18 x 1-3/4" Gr8 Z Hex Bolt	JM0043433
6	2-1/2"ID x 2-3/4"OD x 1-1/2"LG Sleeve Composite Bearing	JM0038697
7	Swivel Hitch Pin Weldment 1-3/4" Dia. x 13-3/8"	JM0043318
8	3/4"-10 x 3" Gr5 Z Hex Bolt	JM0019201
9	1/2"-13 x 3" Gr8 Z Hex Bolt	JM0042679
9	3/4" Z SAE Flat Washer	JM0043325
10	Rubber Spring A570-65 Assembly (w/washer & bushing)	JM0038917
11	Rubber Spring A570-65	JM0038913
12	Rubber Spring A570-65 Bushing	JM0038915
13	Rubber Spring A570-65 Washer	JM0038916
14	1/2"-13 Gr5 Z SF Hex Nut	JM0002153
15	3/4"-10 Gr5 Z SF Hex Nut	JM0009921
16	Swivel Hitch Pin Washer (2-3/4" O.D.-1-25/32 I.D.)	JM0043322
17	1-3/4" Inch Shaft Diameter Spirolox WSM-175 Retaining Ring	JM0043321
18	1-1/4"-7 x 9" Gr8 Z Hex Bolt	JM0039198
19	Track Spindle Shank 6" x 21-3/8"	JM0043429
20	1-1/4"-7 Gr Z Distorted Thread Hex Nut	JM0042642
21	3/4" Dia x 3-3/4" Lg shoulder bolt	JM0041134
22	.754 ID X .874 OD X .625 LG Bronze Bushing	JM0009455
23	Transverse Guide Roller - 36" Belt	JM0043312
24	5/8"-11 Gr5 Z Centerlock Hex Nut	JM0002146
25	2" Inch Shaft Diameter Spirolox WSM-200 Retaining Ring	JM0042585
26	Longitudinal Roller Washer (2-5/8" O.D. x 2-1/32" I.D.)	JM0038648
27	Longitudinal Guide Roller (2-31/32" O.D. x 3" L)	JM0042220
28	2"ID x 2-1/4"OD x 1"LG Sleeve Bronze Bushing	JM0043333



Suspension Tracks 46"

#	Description	Part No.
1	Swivel Hitch Pin Weldment	JM0042122
2	3/4"-16 x 2" Gr8 YZ Hex Bolt	JM0043611
3	Track Spindle Shank Retainer (8-1/2" O.D.)	JM0041914
4	Track Spindle Shank Shim (6-1/2" O.D.) (46")	JM0041924
5	O-ring Size #441 - 6.975ID x 7.525OD x 0.275W	JM0041912
6	7"ID x 7-1/2"OD x 4" LG Sleeve Composite Bearing	JM0041919
7	1/2"-13 x 3" Gr8 Z Hex Bolt	JM0042679
8	3/4"-10 x 3" Gr5 Z Hex Bolt	JM0019201
9	Upper Spring Plate Weldment	JM0042495
10	3/4" Z SAE Flat Washer	JM0043325
11	3"ID x 3-1/4"OD x 1-1/2" LG Sleeve Composite Bearing	JM0041920
12	1-1/4"-7 Grd Z Distorted Thread Hex Nut	JM0042642
13	Track Spindle Shank (7" O.D. x 25-1/2"L)	JM0041913
14	1-1/4"-7 x 11" Gr8 Hex Bolt	JM0042644
15	3-4"-10 Gr5 Z SF Hex Nut	JM0009921
16	Aeon Hollow Rubber Spring A570-65 Bushing	JM0038915
17	1/2"-13 Gr5 Z SF Hex Nut	JM0002153
18	Aeon Hollow Rubber Spring A570-65 Washer	JM0038916
19	Swivel Hitch Pin Washer (3-1/4" O.D, 2-9/32" ID)	JM0042123
20	2-1/4" Inch Shaft Diameter Spirolox WSM-225 Retaining Ring	JM0042538
21	3/4" Dia x 5-1/2" Lg shoulder bolt	JM0042262
22	.754 ID x .874 OD x .625 LG Bronze Bushing	JM0009455
23	Transverse Guide Roller - 46" Belt (2-1/2" O.D. x 4-7/16"L)	JM0042259
24	5/8"-11 Gr5 Z Centerlock Hex Nut	JM0002146
25	2" Shaft Diameter Spirolox WSM-200 Retaining Ring	JM0042585
26	Longitudinal Roller Washer (2-5/8" O.D. x 2-1/32" I.D.)	JM0038648
27	2"ID x 2-1/4"OD x 1"LG Sleeve Bronze Bushing	JM0043333
28	Longitudinal Guide Roller (2-31/32" O.D. x 3" L)	JM0042220
29	1/4"-20 x 3/4" Gr5 Z SF Hex Bolt	JM0001642
30	Upper Midroller - Outer Cap (3-11/32" O.D.)	JM0043952
31	1" Inch Shaft Diameter Spirolox WS-100 Retaining Ring	JM0044146
32	Upper Midroller - With Bearings	JM0043942
33	Upper Midroller - Inner Cap (3-31/31 O.D.)	JM0043971
34	Upper Midroller Spindle (9-1/2"L)	JM0043943
35	1/2"-13 x 3" Gr5 Z Hex Bolt	JM0016678
36	Upper Midroller Bracket Weldment	JM0043987
37	Aeon Hollow Rubber Spring A570-68	JM0044600

Suspension Tracks 46"



#	Description	Part No.
1	Track 38" End Wheel Weldment	JM0041382
2	3/4"-16 x 10" Gr8 Fully-Threaded Z Hex Bolt	JM0041570
3	3/4"-10 x 2" Gr5 Z Hex Bolt	JM0002106
4	Swivel Hitch Pin Weldment (2-1/4" O.D. x 14-5/8"L)	JM0042122
5	Swivel Hitch - Alignment Bolt Keeper	JM0038501
6	3/4"-10 Gr5 Z Hex Nut	JM0002125
7	3/4" Hardened YZ SAE Flat Washer	JM0042264
8	3/4"-16 Gr8 Z High Hex Nut	JM0038709
9	3/4"-16 Gr8 Z Hex Nut	JM0041245

Suspension Tracks 46"

#	Description	Part No.
10	Oil Seal for 873 Hub(G873OB)(24T-OB)	JM0035243
11	Large Bearing (910398) (33275) (4T-33275)	JM0025687
12	Large Race (4T-33462) (910397)	JM0025689
13	877 Hub with Studs, Nuts, and Races (End Idler STX-46)	JM0041812
14	Wheel Stud (3/4"-16 x 1 3/4")	JM0018957
15	Small Race (4T-453A) (910332)	JM0025695
16	Small Bearing (910334) (BK460) (4T-460)	JM0025688
17	3/16" Spindle Washer (1 5/16" ID, 3 1/4" OD)(913632)	JM0029511
18	1-1/4"-12 Gr5 Z Castle Hex Nut	JM0010113
19	.188 x 2-1/2" Cotter Pin	JM0027684
20	Dust Cap Gasket G877	JM0043908
21	873OB Hub Dust Cap	JM0035157
22	M4-0.7MM x 8MM SS Socket Head Cap Screw	JM0044082
23	5/16"-18 x 1/2" Gr5 Z Hex Bolt	JM0016674
24	3/4"-16 Flange Lugnut	JM0034718
25	1"-8 x 5-1/2" Gr5 Z Hex Bolt	JM0002110
26	1"-8 Gr5 Z Centerlock Hex Nut	JM0002149
27	Track Swivel Hitch Weldment	JM0041537
28	46"Track Spindle (37.53" Long)	JM0041489
29	Swivel Hitch Pin Washer (3-1/4" O.D, 2-9/32" ID, .135 thick)	JM0042123
30	2-1/4" Inch Shaft Diameter Spirolox WSM-225 Retaining Ring	JM0042538
31	3/4"-10 Gr8 Z Hex Nut	JM0042265
32	3/4"-10 x 5" B7 Z Rod End Eye - Fully Threaded	JM0040917
33	Extension Spring 11.385 x 3.50 OD x .594 Wire	JM0042205
34	Track Tensioner Weldment	JM0041467
35	Track Tensioner - Pivot Pin (3"O.D. x 17-1/32" L)	JM0041504
36	3/4"-10 Gr5 Z Centerlock Hex Nut	JM0002147
37	3/4"-10 x 5" Gr5 Z Hex Bolt	JM0009997
38	Floating Bogie Weldment	JM0041402
39	14" Bogie Wheel Weldment	JM0041385
40	46" Rubber Belt x 336"	JM0041343
41	Tensioner Shield - Inner Beam	JM0044163
42	Tensioner Shield - Outer Beam	JM0044162
43	3/8"-16 x 3/4" Gr5 Z SF Hex Bolt	JM0001750
44	3/8 -16 Gr5 Z SF Hex Nut	JM0002152
45	877-200 Hub with Studs, Nuts, and Races (Bogie STX-46)	JM0041818