

# INSTALLATION INSTRUCTION

CPB-435JD  
2P-0070

## CONVERSION TRACK SYSTEM

John Deere S-Series and 50, 60, 70 Series STS  
Combines (without Speed Multiplier)



## 1.0 Introduction

This Installation manual was prepared with the latest service information available at the time of publication. Read the installation manual carefully before doing any service on the undercarriage(s).

The photos, illustrations, and data used in this manual were current at the time of printing, but due to possible production change, your installation can vary slightly. Camso reserves the right to make changes as necessary without notification.



### WARNING

Some pictures in this manual show the undercarriage with shields removed or undercarriage removed from the cart or frame to allow for a better view of the subject of the picture.

## 2.0 Important Safety Information

Read and understand this manual, the undercarriage operator's manual, the operation manual for the equipment the undercarriage is mounted to, and the manual for all attachments before installing track system onto the machine.

Most personal injuries occurring during equipment operation, maintenance, or repair are caused by failure to observe basic safety rules and precautions. In most cases, an injury can be avoided by recognizing hazardous situations before an injury occurs.

A person must be alert to potential hazards. This person should also have the necessary training, skills and tools to perform these functions properly.

Safety precautions and warnings are provided in this manual and on the product. If these hazard warnings are not heeded, bodily injury or death could occur to you or to other persons.

Not every possible circumstance that might involve a potential hazard can be anticipated. The warnings in this publication and on the product are, therefore, not all inclusive. If a tool, procedure, work method or operating technique that is not specifically recommended by Camso is used, you must satisfy yourself that it is safe for you and for others.

You must also make sure that the product will not be damaged or be made unsafe by the operation, lubrication, maintenance or repair procedures that you choose. The information, specifications, and illustrations in this publication are on the basis of information that was available at the time that this publication was written.

The specifications, torques, pressures, measurements, adjustments, illustrations, and other items can change at any time. These changes can affect the service that is given to the product. Obtain the complete and most current information before you start any job. Camso dealers have the most current information available.



### WARNING

When replacement parts are required for this product Camso recommends using Camso replacement parts. Failure to heed this warning can lead to premature failures, product damage, personal injury or death.



### **WARNING**

Installation of CTS systems onto any machine requires special adapters that must be obtained from Camso for proper installation. Failure to heed this warning can lead to premature failures, product damage, personal injury or death.

## **2.0 Special Tools Required for Installation**

- 30 and 32 sockets
- ¾” drive torque wrench (range of at least 440 ft-lbs to 620 ft-lbs)
- ¾” drive extension (12”)
- ¾” drive impact gun
- Fork lift or similar lifting device (capable of lifting 5500 lbs)
- Hydraulic Jack (20 ton)
- Blocks (adequate support for holding up combine)

## **3.0 Installation Notes**

- Track systems can be mounted on John Deere S-Series and 50,60, 70 STS Series combines.
- Overall machine height is increased by approximately 3” (76 mm) on the front axle.
- Maximum speed will be reduced with the tracks installed. Maximum speed with tracks installed will be approx. 14 mph.

## 4.0 Installation Kit Parts Breakdown

### 4.1 John Deere S-Series Combines Fitment Kit

To properly install the CTS to a John Deere S-Series Combine, the following component list will be necessary. These components are included in Camso Sales Kit Part Number 2K-0068. If missing components or there are damaged components, please contact your authorized Camso Dealer for any replacements.

Part Number	Description	Quantity
1000956	Tension Charging Hose	1
2A-1082	Oscillation Limiter Kit	1
2F-0392	NORD-LOCK Washer (M22)	20
2F-0393	M22x2.5x80 Hex Bolt 10.9	20
2P-0039	32 mm ¾ Drive Socket (OD 44mm)	1
1000581*	Oscillation Stop Bracket	2
2F-0462*	M20x2.5x45 Hex Bolt 10.9	8
2F-0325*	M20 Washer	8

\* Parts of oscillation stop bracket for the CTS track frame (if not already installed).

### 4.2 John Deere 50, 60, 70 (STS) Series Combines Fitment Kit

To properly install the CTS to a John Deere 50, 60 or 70 Series Combine, the following component list will be necessary. These components are included in Camso Sales Kit Part Number 2K-0069. If missing components or there are damaged components, please contact your authorized Camso Dealer for any replacements.

Part Number	Description	Quantity
1000956	Tension Charging Hose	1
2A-1082	Oscillation Limiter Kit	1
2F-0325	NORD-LOCK Washer (M20)	20
2F-0130	M20x2.5x80 Hex Bolt 10.9	20
1000581*	Oscillation Stop Bracket	2
2F-0462*	M20x2.5x45 Hex Bolt 10.9	8
2F-0325*	M20 Washer	8

\* Parts of oscillation stop bracket for the CTS track frame (if not already installed).

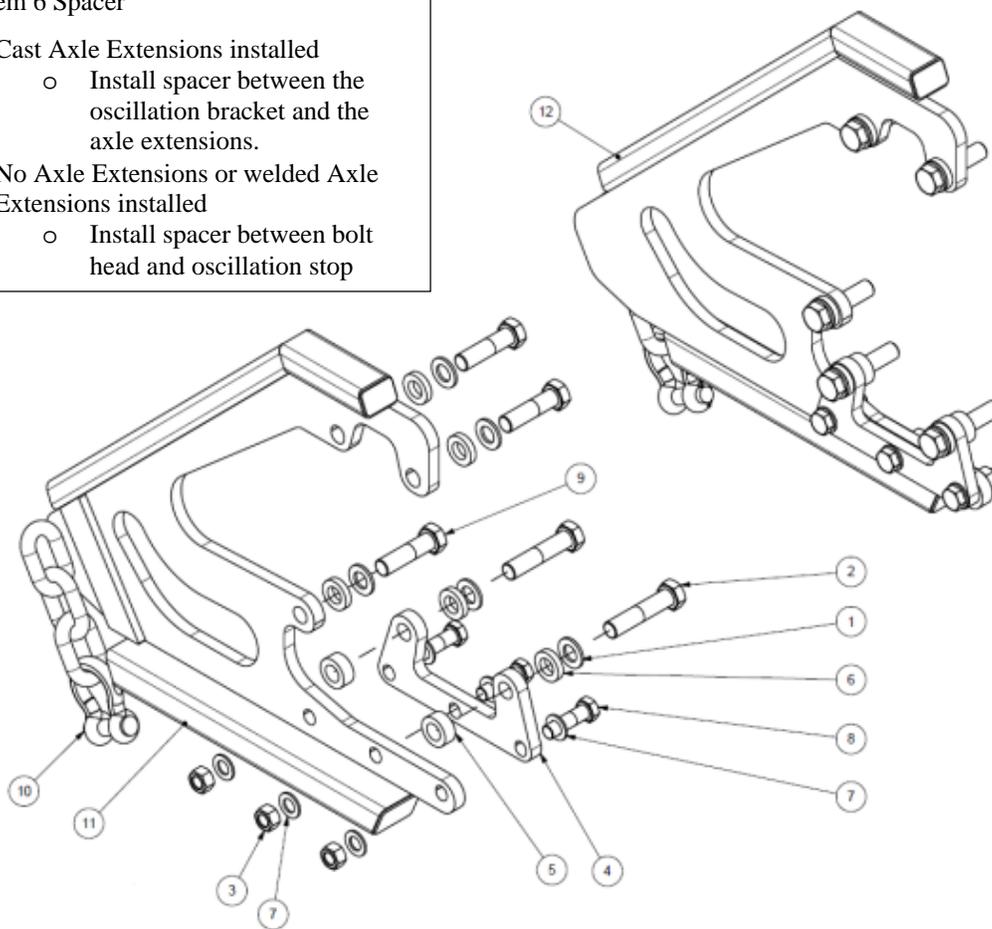
### 4.3 Oscillation Limiter Kit (Part Number 2A-1082)

To prevent possible machine and/or undercarriage damage and additional downtime, it is required that the oscillation limiters be installed. The oscillation limiters are there to reduce the possibility of the CTS from over oscillating. The table below lists the parts that are included in the oscillation limiter kit which is included in the fitment kit for your specific combine. If parts are missing or need to be replaced, please contact your authorized Camso Dealer.

Item #	Part Number	Description	Quantity
1	224091361	M24 Washer	10
2	732601509	M24x3x110 Bolt 10.9	4
3	732610155	M20 Nut	6
4	2C-2400	Attachment Plate	2
5	2C-2419	3/4" Spacer	4
6*	2C-2420	3/8" Spacer	10
7	2F-0031	M20 Washer	12
8	2F-0158	M20x2.5x70 Bolt 10.9	6
9	2F-0336	M24x3x90 Bolt 10.9	6
10	2M-0166	Clevis	2
11	2S-0461	LH Oscillation Bracket	1
12	2S-0462	RH Oscillation Bracket	1

\*Note: Item 6 Spacer

- Cast Axle Extensions installed
  - Install spacer between the oscillation bracket and the axle extensions.
- No Axle Extensions or welded Axle Extensions installed
  - Install spacer between bolt head and oscillation stop



## 5.0 Track System Installation

### 5.1 Handling of the Track System

The track systems can be handled by fork lifts or by hoists using textile bands. If using a forklift, the track systems can be lifted from the base of the track system or by carefully sliding the forks through the drive wheel.



#### **WARNING**

Danger of crushing. Use suitable lifting devices (capacity at least 6600 lbs (3000Kg)), wear safety equipment and observe the safety rules.



#### **WARNING**

In case of a fork lift use for handling operations, be careful not to damage the rubber track. Metal chains or cables are not recommended.



#### **WARNING**

Use a chock between each idler wheel and track to prevent the track system from rolling if using a forklift and handling the track system by the base.



#### **WARNING**

When setting a track system on the ground but off of the machine, place track system on a flat surface and place a wheel chock in front of and to the rear of the track system to prevent the track system from rolling.

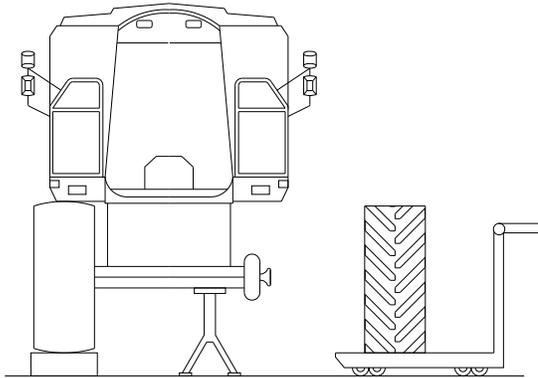


#### **WARNING**

If lifting the track system by placing the forks in the spokes of the drivewheel, use caution to prevent damage to the drivewheel and tensioning system (hydraulic accumulator).

## 5.2 Track System Installation

1. Place combine on a level surface and lock the combine harvester to avoid any movement.
2. Using an adequate lifting device, lift the combine on installation side. Follow procedures identified in the Combine's Operator's Manual to properly remove and handle tires. Keeping the front axle parallel to the ground will aid in ease of installation.
3. Remove the tire(s) from the axle. Follow procedures identified in the Combine's Operator's Manual to properly remove and handle tires.



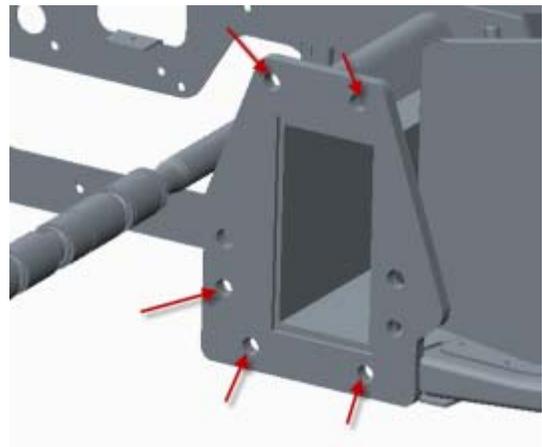
### WARNING

Safety of the installation depends on the right operation in lifting and supporting the combine harvester. Check the work area thoroughly and work in a level area. Respect safe operating practices, operate in conditions of enough light. Make sure the free spaces of the work area are suitable for the dimensions of the parts to be handled and for the lifting equipment maneuvers.

Be careful: risk of injury.

4. Remove the bolts from the locations identified in the picture from the combine final drive to install the oscillation limiter.

**NOTE:** Combine final drive assembly has been removed from this picture for illustration needs only. There is no need to completely remove the final drive.



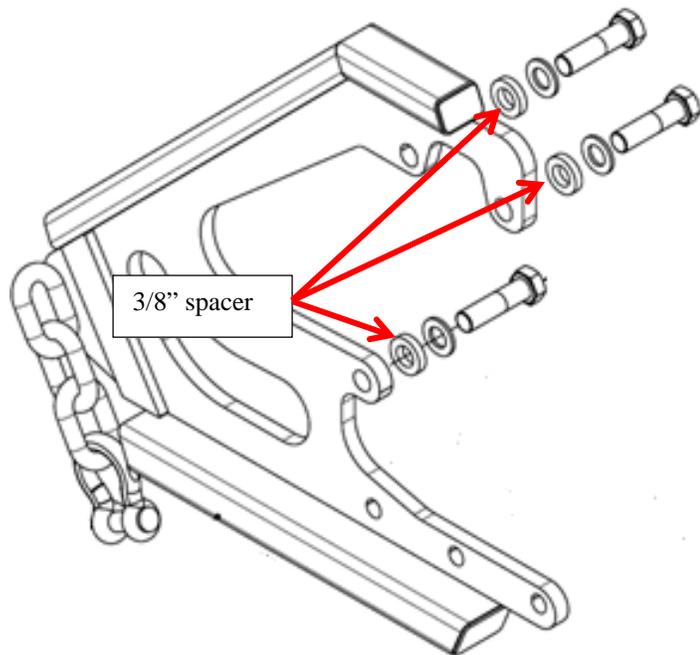
5. Install main oscillation limiter bracket using hardware provided with the installation kit. Torque the 24 mm bolts to 860 ft-lbs (1170 Nm).

**NOTE:** Bracket will point to the front of the machine.



Note: 3/8" spacer installation

- Cast Axle Extensions installed
  - Install spacer between the oscillation bracket and the axle extensions.
- No Axle Extensions or welded Axle Extensions installed
  - Install spacer between bolt head and oscillation stop

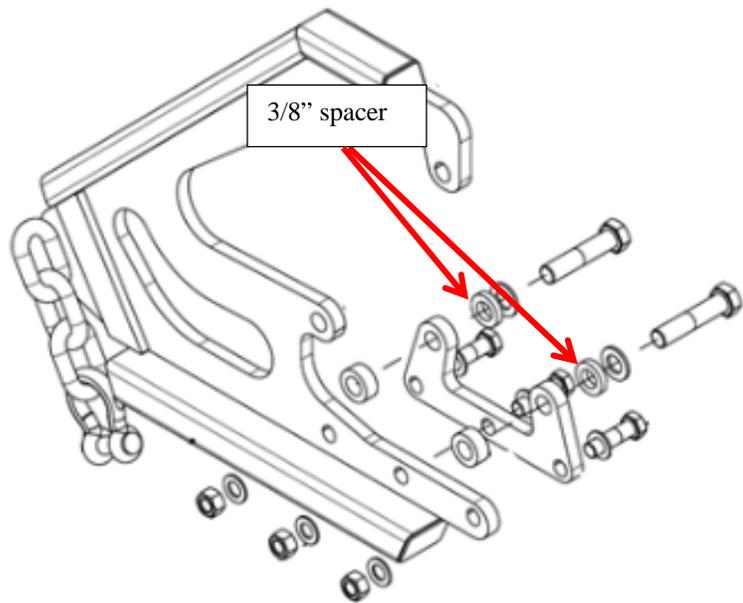


6. Install secondary oscillation bracket.  
Torque the 20 mm bolts to 500 ft-lbs  
(675 Nm) and 24 mm bolts to 860 ft-lbs  
(1170 Nm).



Note: 3/8" spacer  
installation

- Cast Axle  
Extensions installed
  - Install spacer  
between the  
oscillation  
bracket and  
the axle  
extensions.
- No Axle Extensions  
or welded Axle  
Extensions installed
  - Install spacer  
between bolt  
head and  
oscillation  
stop



7. Install oscillation stop bracket onto the CTS frame (if not already installed). Install the bracket to CTS frame to the front of the drive wheel. Install oscillation stop bracket using 4 M20 bolts and 4 M20 lock washers. Torque bolts to 460 ft-lbs (620 Nm).

NOTE: Older CTS units use a fine threaded bolt. Model year 2015 and newer CTS units use a coarse threaded bolt. Torque remains the same for both bolt styles.



8. Identify if the combine has axle extensions installed or not. Combine axle extensions are a factory option when purchasing a combine. Although, a large portion of the combines in North America have the axle extensions, it is still important to verify that the combine has the axle extensions installed to determine best installation of the CTS.



9. Install the track system onto the combine axle. Take care that the front of the track is on the tensioning cylinder side.

a. Combines with axle extensions already installed. No additional changes are required and CTS should be bolted directly (without a spacer or adapter) to the combine axle.

b. Combines without axle extensions installed.

i. Preferred CTS Installation

- Install Axle Extensions onto combine. Please contact your local dealer for parts and instructions to install the axle extensions.

ii. Recommended CTS Installation (without axle extensions)

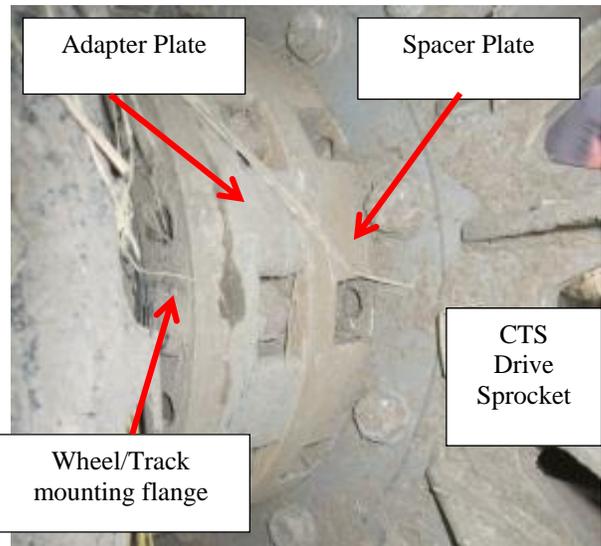
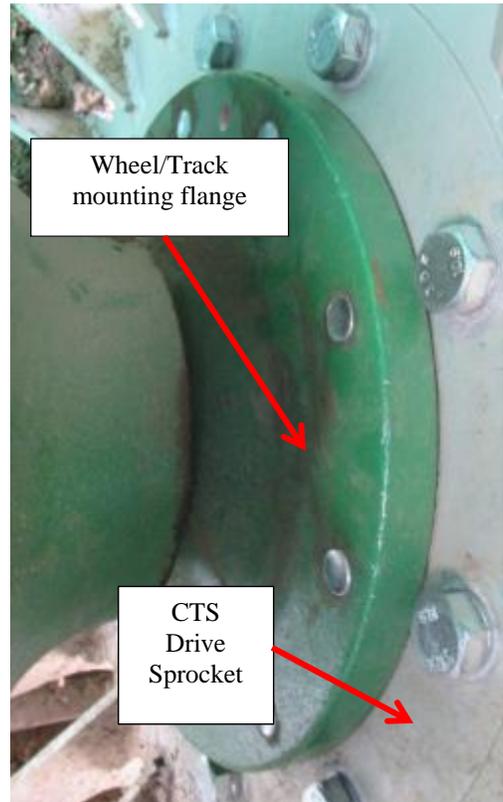
- Bolt CTS directly to axle.
- In order for the track to oscillate properly, the step to the rear of the track system will need to be modified. The front 8 inches of the step will need to be removed in order to prevent contact of the track system to the step

- **NOTE:** This allows approximately  $2.5 \pm 1$  inch ( $65 \pm 25$  mm) of clearance between the track and the combine.

iii. Optional CTS Installation (without axle extensions)

- Use the spacer plate and adapter plate
- Some modifications to the machine may be necessary to prevent track system from contacting combine.
- **NOTE:** This will allow approximately  $7.5 \pm 1$  inch ( $190 \pm 25$  mm) of clearance between the track and combine
- **NOTE:** Higher stress loads will be placed on the bolted joint

- **NOTE:** Limit high dynamic loading. Inspect bolted joint during daily inspection, especially if running with large headers and wet heavy crops



- **NOTE:** Additional parts will need to be purchased from Camoplast in order to install the CTS in this manner.



**WARNING**

Should a motorized lifting device be used, assistance on ground during operation of handling, coupling and assembly is needed.  
Do not stay between lifting device and track and between track and combine harvester.  
Be careful: risk of injury.

10. Install the 3 or 4 reachable bolts in the flange holes of the track and tighten to 220 ft-lbs (300 Nm). Coat threads of the bolt with engine oil prior to installing.

**NOTE:** The mounting bolts are included in the fitment kit. John Deere 50, 60, 70 Series combines use a 20 mm bolt whereas the S-Series combines utilize a 22 mm bolt.



11. Repeat the operation on the opposite side to install the second track.
12. Once the machine is lowered to the ground, move it forward or backward slowly to uncover the remaining bolt holes.
13. Stop the machine and insert the remaining bolts on both track systems; tighten the bolts to 220 ft-lbs (300 Nm). Coat threads of the bolt with engine oil prior to installing.  
**NOTE:** For S-Series Combines, a 32 mm socket is provided with the fitment kit. This socket is necessary for the socket to fit onto the head of the bolt and clear the CTS frame. Additional sockets are available for purchase from Camoplast.
14. Finally, tighten all the bolts in cross sequence, moving the combine harvester accordingly. Mounting bolts should be torqued to 370 ft-lbs (500 Nm) for combines using M20 bolts and 500 ft-lbs (670 Nm) for combines using M22 bolts.

**NOTE:** Mounting bolt torque should be checked regularly during use. Please reference the SCHEDULED MAINTENANCE section of the Operation and Maintenance Manual (OMM) for additional information.

15. Connect Oscillation Limiters to the CTS track frame using the clevis.



**WARNING**

Install original or backup protections and the ladder in conformity with the safety rules before starting up the engine.



**WARNING**

The rubber track has the possibility to move transversally  $\frac{1}{4}$  -  $\frac{1}{2}$  in (8-10 mm) each side. Verify that clearance between the track and the combine harvester body is suitable in all pivoting positions of the track.

16. Drive machine around for 5 minutes. Recheck mounting bolt torque. Mounting bolts should be torqued to 370 ft-lbs (500 Nm) for combines using M20 bolts and 500 ft-lbs (670 Nm) for combines using M22 bolts. Repeat process until no additional bolt rotational movement occurs.



17. After 1 hour of use, retorque mounting bolts to 370 ft-lbs (500 Nm) for combines using M20 bolts and 500 ft-lbs (670 Nm) for combines using M22 bolts. Repeat hourly check until no further bolt rotational movement occurs.



## **WARNING**

- It is important to follow the installation instructions and to use a calibrated torque wrench to ensure bolts are properly torqued. Failure to do so may result in the CTS mounting bolts coming loose and the bolts breaking resulting in downtime and possible damage to the combine and CTS