



Tubeline Manufacturing Limited  
6455 Reid Woods Drive RR #4  
Elmira, Ontario, Canada N3B 2Z3

Email: [sales@tubeline.ca](mailto:sales@tubeline.ca)

Fax: 519.669.5808

Tel: 519.669.9488

Toll-free (North America): 1.888.856.6613

[www.tubeline.ca](http://www.tubeline.ca)

---

# Parts Manual

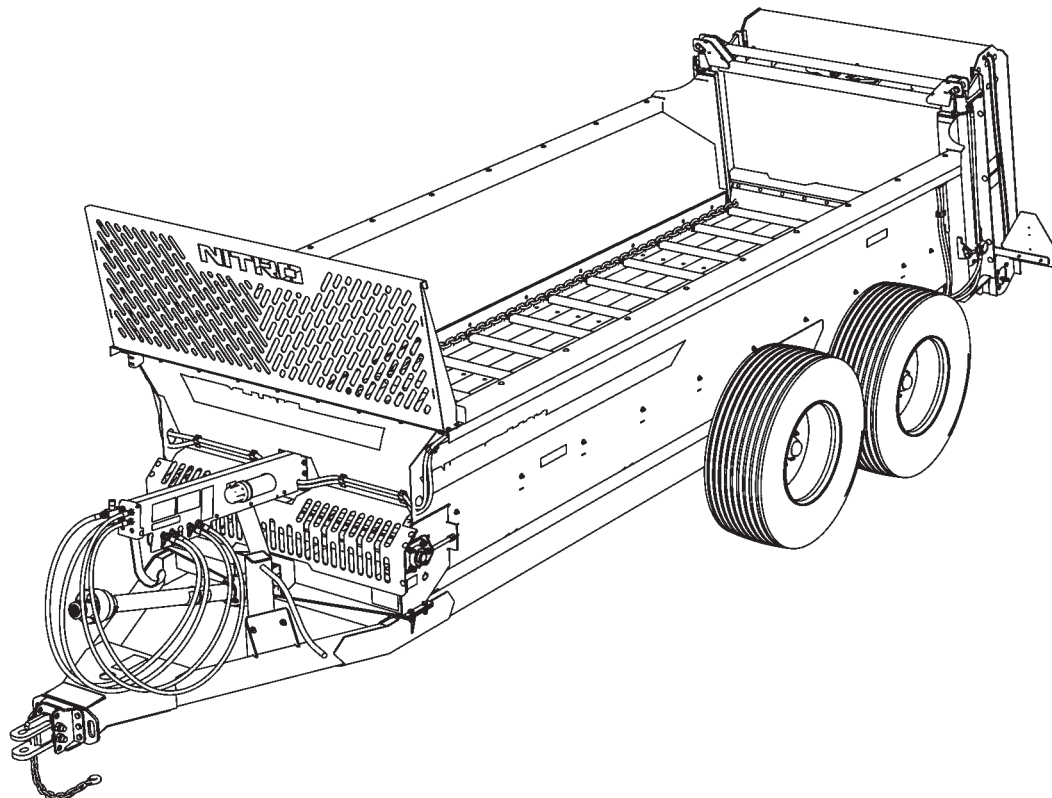
Keep this manual with the machine at all times.

---



Manure Spreader

## Nitro 440LS



# Parts Manual

Thank you for choosing the Tubeline 440LS Manure Spreader. Our hope is that it will give you many years of productive service. This machine is designed to spread various types of manure evenly over a wide area.

## Warranty and Limitation of Liability

All equipment is sold subject to mutual agreement that it is warranted by the company to be free from defects of materials and workmanship. But the company shall not be liable for special, indirect or consequential, damages of any kind under this contract or otherwise. The company's liability shall be limited exclusively to replacing or repairing without charge, at its factory or elsewhere, at its discretion.

Any material, or workmanship defects which become apparent within one year from the date on which the equipment was purchased, and the company shall have no liability for damages of any kind. The buyer by the acceptance of the equipment will assume all liability for any damages, which may result from the use or misuse by his employees or others.

## Nitro Apron Chain Warranty



Tubeline Manufacturing Ltd offers a limited lifetime non-transferable warranty to the original purchaser of a Nitro manure spreader. This warranty applies to chain link breakage and covers parts only. Should a connecting link fail, only it will be replaced. However, if a standard link breaks the complete chain will be provided. Freight and labor to install is the responsibility of the purchaser and is not covered under the terms of the limited warranty.

Tubeline Manufacturing Ltd reserves the right to request the return of the failed chain.

Warranty coverage is null and void unless Warranty Registration form has been completely filled in and is on file at Tubeline Manufacturing Ltd.

## Manuals

Parts manuals are printed and shipped with machines as they leave the manufacturer. Your machine may include parts or features not yet included in the initially shipped manual. The latest manual version can be found at [www.tubeline.ca/support.php](http://www.tubeline.ca/support.php). Tubeline reserves the right to update and change manuals as seen fit. Dealers are informed of any pressing changes/ modifications. They can help you with any questions regarding replacement parts.

## Serial Number

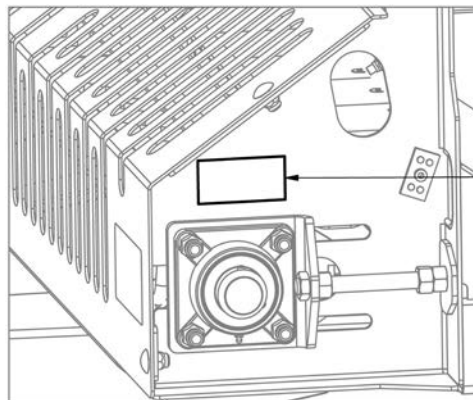
The implement serial number is located above the front left apron drive bearing. This number helps us to track changes and improvements and must be mentioned when ordering parts or requesting service. For your convenience, a space has been provided inside the front cover of this manual to record the serial number, model number, purchase date, and dealer name.

Model No: \_\_\_\_\_ 440LS

Serial No: \_\_\_\_\_

Date Purchased: \_\_\_\_\_

Dealer Name: \_\_\_\_\_



*Intentionally Left Blank*

# Table of Contents

|                                                 |             |
|-------------------------------------------------|-------------|
| <b>Parts Manual</b>                             | <b>II</b>   |
| Warranty and Limitation of Liability            | II          |
| Nitro Apron Chain Warranty                      | II          |
| Manuals                                         | II          |
| Serial Number                                   | II          |
| Safety Decals                                   | V           |
| DE51368 - 440LS Model Decal Kit                 | V           |
| DE42860 - Nitro Safety Decal Kit                | VI          |
| ISO Safety Decals                               | VII         |
| <b>Section 1 - Parts Breakdowns &amp; Lists</b> | <b>1-1</b>  |
| Front Shields                                   | 1-2         |
| Front Apron Drive                               | 1-4         |
| Floor & Side Boards                             | 1-5         |
| Driveline                                       | 1-6         |
| Rear Apron Drive                                | 1-8         |
| Endgate                                         | 1-10        |
| Beaters                                         | 1-12        |
| Tandem Axle                                     | 1-14        |
| Apron Runners                                   | 1-16        |
| Hydraulics - Endgate Cylinders                  | 1-18        |
| Hydraulics - Apron Drive Circuits               | 1-20        |
| Tongue                                          | 1-22        |
| <b>Section 2 - Options</b>                      | <b>2-1</b>  |
| 43622 - Mechanical Light Kit                    | 2-2         |
| Light Kit Wiring Harness                        | 2-4         |
| Endgate Indicator                               | 2-6         |
| Flange Paddle Kit - 51406                       | 2-8         |
| <b>Section 3 - PTOs</b>                         | <b>3-1</b>  |
| 51365 - Front PTO - Up to SN 25NLS340           | 3-1         |
| 51366 - Rear PTO - Up to SN 25NLS340            | 3-1         |
| 51783 - Front PTO - SN 25NLS339, 341 to Current | 3-2         |
| 51784 - Rear PTO - SN 25NLS339, 341 to Current  | 3-2         |
| <b>Section 4 - Gearboxes</b>                    | <b>4-1</b>  |
| 50898 - Apron Chain Gearbox                     | 4-2         |
| 50899 - Beater Gearbox                          | 4-4         |
| <b>Torque Value Chart - Imperial</b>            | <b>VIII</b> |
| <b>Torque Value Chart - Metric</b>              | <b>IX</b>   |

## Safety Decals

The types of safety decals and locations on the equipment are shown in the illustrations that follow. Good safety requires that you familiarize yourself with the various safety signs, the types of warning, and the area, or proper function related to that area, that requires your safety awareness.

*Examples only - Actual decals may differ in text and graphic representation.*

### REMEMBER

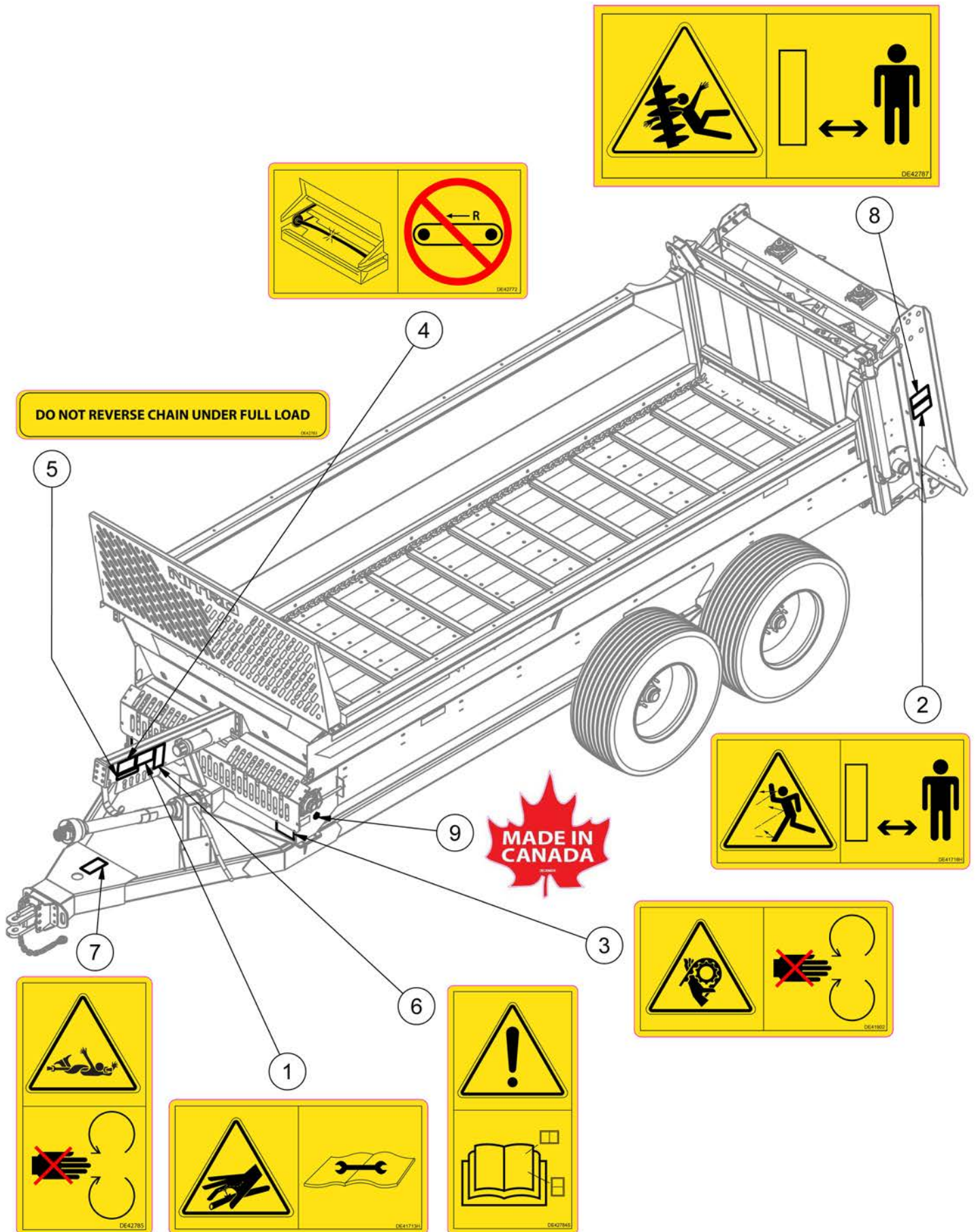
If decals have been damaged, removed, become illegible or parts replaced without safety signs, new safety signs must be applied. New safety signs are available from your authorized dealer.

### DE51368 - 440LS Model Decal Kit



| ITEM | QTY | PART NUMBER | DESCRIPTION               |
|------|-----|-------------|---------------------------|
| 1    | 1   | DE51364     | 440LS Left Side Decal     |
| 2    | 1   | DE51365     | 440LS Right Side Decal    |
| 3    | 1   | DE43930     | Nitro 375/525 Front Decal |
| 4    | 1   | DE51492     | N440LS QR Decal           |

## DE42860 - Nitro Safety Decal Kit



| ITEM | QTY | PART NUMBER | DESCRIPTION                                |
|------|-----|-------------|--------------------------------------------|
| 1    | 6   | DE41713H    | ISO Decal - High Pressure Fluid Horizontal |
| 2    | 2   | DE41718H    | ISO Decal - Thrown Object Horizontal       |
| 3    | 2   | DE41902     | ISO Decal - Chain Entanglement             |
| 4    | 1   | DE42772     | ISO Decal - Nitro Reverse Chain            |
| 5    | 1   | DE42783     | Nitro Reverse Chain Text Decal             |
| 6    | 1   | DE42784     | ISO Decal - Read OM Decals Section         |
| 7    | 1   | DE42785     | ISO Decal - PTO Entanglement               |
| 8    | 2   | DE42787     | ISO Decal - Nitro Beater Entanglement      |
| 9    | 2   | DECANADA    | Decal Made In Canada                       |

## ISO Safety Decals



**Item 1: DE41713H**

*Do not use hand to check for hydraulic leaks, alternatively use a piece of cardboard.*



**Item 6: DE42784**

*Read Operator's manual decal section to understand safety decals.*



**Item 2: DE41718H**

*Keep clear of machine while operating. Serious injury may occur.*



**Item 7: DE42785**

*Do not use hand to check for hydraulic leaks, alternatively use a piece of cardboard.*

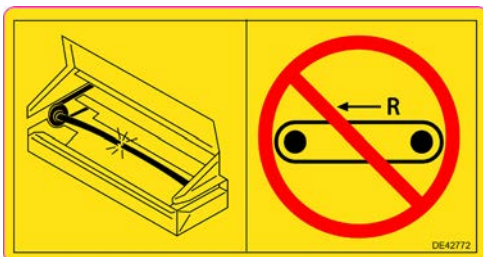


**Item 3: DE41902**

*Keep hands clear of rotating parts while machine running. Do not operate without shielding in place. Do not wear loose clothing while operating.*

**Item 8: DE42787**

*Stand clear of rotating beaters to avoid entanglement. Serious injury or death hazard.*



**Item 4: DE42772**

*Reversing apron chain while spreader is fully loaded will cause front apron shaft breakage.*



**Item 5: DE42783**

**DO NOT REVERSE CHAIN UNDER FULL LOAD**

DE42783

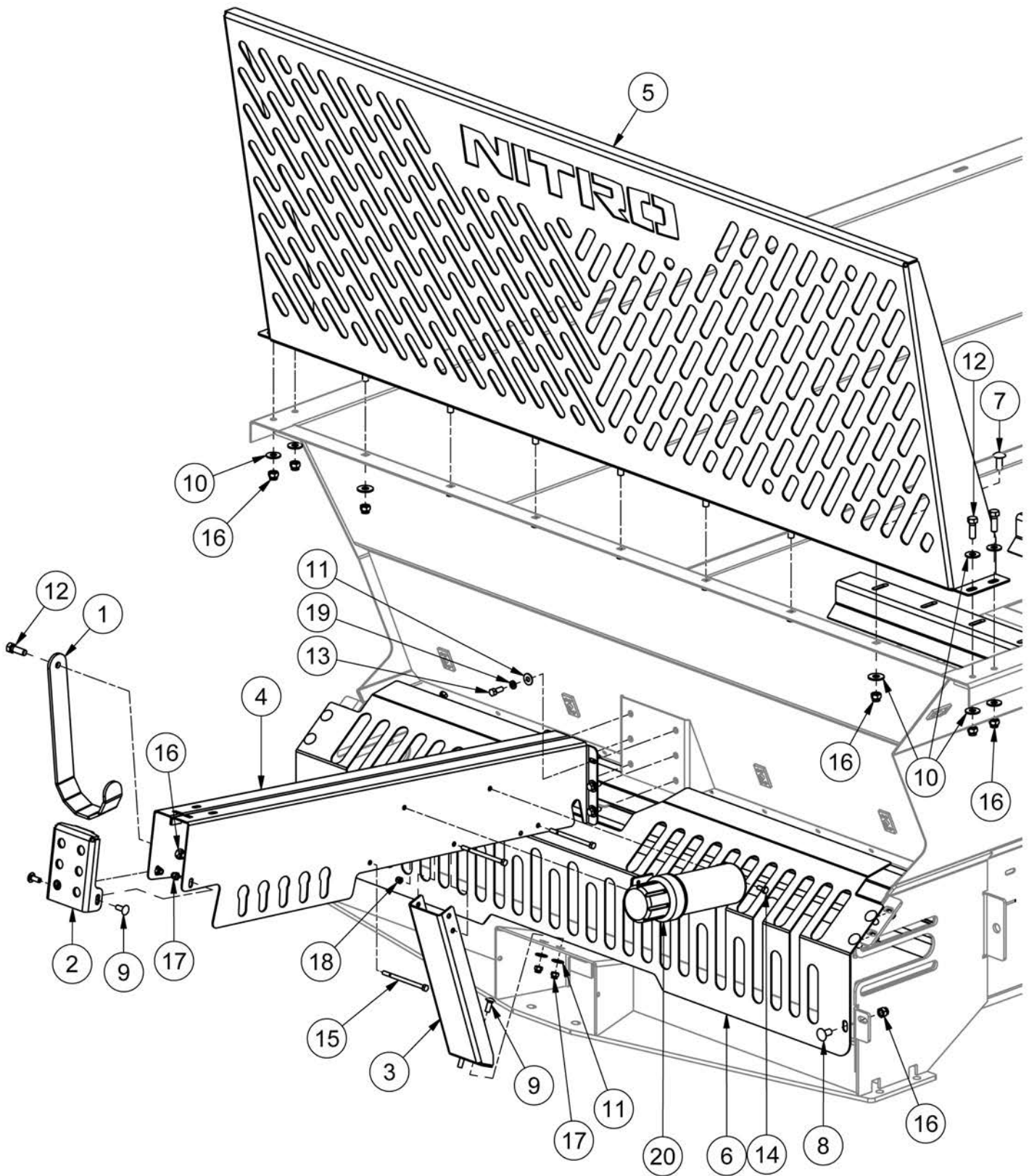


**Item 9: DECANADA**

*Manufacturer's country of origin.*

# Section 1 - Parts Breakdowns & Lists

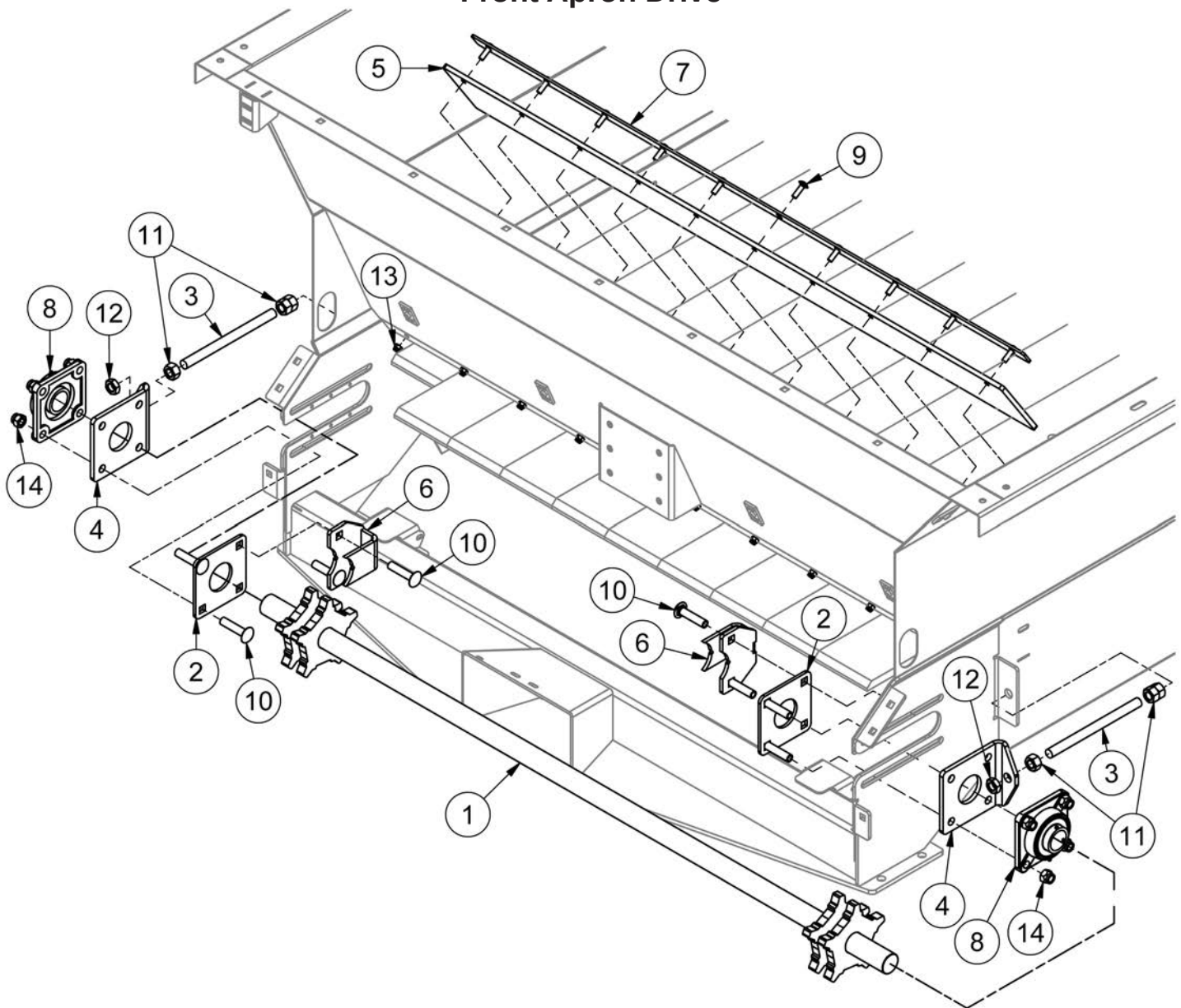
## Front Shields



## Front Shields

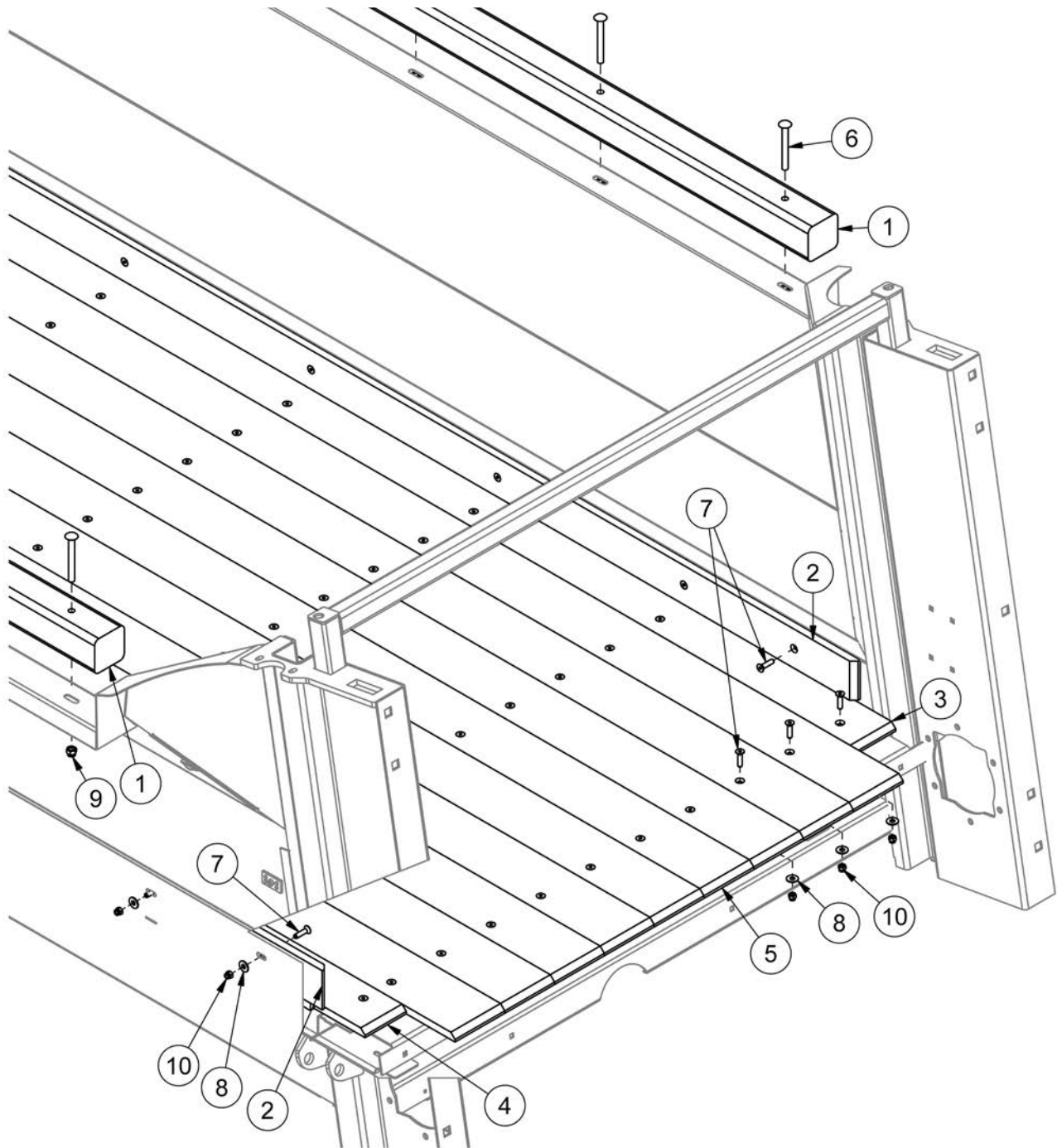
| ITEM | QTY | PART NUMBER      | DESCRIPTION                                             |
|------|-----|------------------|---------------------------------------------------------|
| 1    | 1   | 35754            | PTO Holder                                              |
| 2    | 1   | 39413            | Hose Mount                                              |
| 3    | 1   | 50993            | Front Wire Mount Support                                |
| 4    | 1   | 51088            | RS Hydraulic Hose Hanger                                |
| 5    | 1   | 51147            | Stone Guard                                             |
| 6    | 1   | 51179            | Front Idler Shaft Cover                                 |
| 7    | 7   | CB1/2-13X1.25CZ5 | Carriage Bolt - 1/2-13 x 1 1/4" Grade 5 Zinc            |
| 8    | 6   | CB1/2-13X1CZ5    | Carriage Bolt - 1/2-13 x 1" Grade 5 Zinc                |
| 9    | 4   | CB3/8-16X1CZ5    | Carriage Bolt - 3/8-16 x 1" Grade 5 Zinc                |
| 10   | 15  | FW 1/2           | Flatwasher - 1/2" Zinc Plated USS                       |
| 11   | 8   | FW 3/8           | Flatwasher - 3/8" Zinc Plated USS                       |
| 12   | 5   | HB1/2-13X1.5Z5   | Hex Bolt 1/2-13x1 1/2 Grade 5 Zinc Plated Hex Cap Screw |
| 13   | 6   | HB3/8-16X1Z5     | Hex Bolt 3/8-16x1 Grade 5 Zinc Plated Hex Cap Screw     |
| 14   | 2   | HB5/16-18X0.75Z5 | Hex Bolt 5/16-18x3/4 Grade 5 Zinc Plated Hex Cap Screw  |
| 15   | 3   | HB5/16-18X5Z5    | Hex Bolt 5/16-18x5 Grade 5 Zinc Plated Hex Cap Screw    |
| 16   | 18  | LN1/2-13NCZ5     | LN 1/2-13 Zinc Plated Nylon Insert Lock Nut             |
| 17   | 5   | LN3/8-16NCZ5     | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut             |
| 18   | 5   | LN5/16-18NCZ5    | LN 5/16-18 Zinc Plated Nylon Insert Lock Nut            |
| 19   | 6   | LW 3/8           | LW -3/8" Zinc Plated Medium Split                       |
| 20   | 1   | TL5X2-201-111    | Operator's Manual Holder                                |

## Front Apron Drive



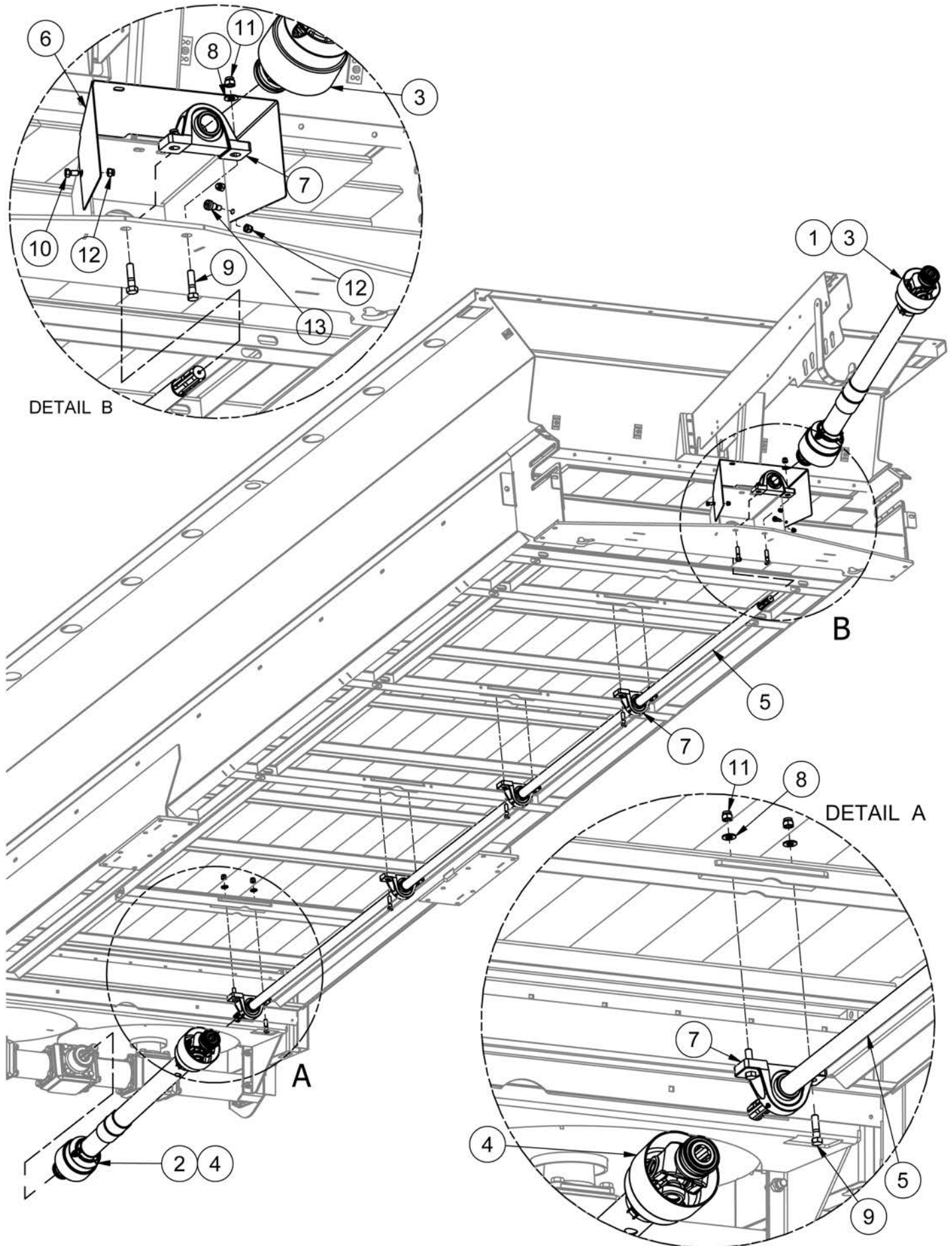
| ITEM | QTY | PART NUMBER      | DESCRIPTION                                  |
|------|-----|------------------|----------------------------------------------|
| 1    | 1   | 375-145          | Front Apron Chain Shaft                      |
| 2    | 2   | 37720            | Inside Bearing Plate                         |
| 3    | 2   | 39334            | Adjustment Rod                               |
| 4    | 2   | 400-169          | Bearing Mount Plate                          |
| 5    | 1   | 450-441          | Rubber Seal                                  |
| 6    | 2   | 45445            | RS Series Front Scraper                      |
| 7    | 1   | 600-790          | Rubber Hold Down                             |
| 8    | 2   | BEA UCF209-28R3  | Flange Bearing, Triple Seal, Ductile Iron    |
| 9    | 10  | CB3/8-16X1.25CZ5 | Carriage Bolt - 3/8-16 x 1 1/4" Grade 5 Zinc |
| 10   | 8   | CB5/8-11X2.75CZ5 | Carriage Bolt - 5/8-11 x 2 3/4" Grade 5 Zinc |
| 11   | 6   | HN3/4-10CZ5      | Hex Nut 3/4"-10 Grade 5 Zinc Plated Finished |
| 12   | 2   | HNJ3/4-10        | Hex Nut - 3/4-10 Zinc Plated Hex Jam Nut     |
| 13   | 10  | LN3/8-16NCZ5     | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut  |
| 14   | 8   | LN5/8-11NCZ5     | LN 5/8-11 Zinc Plated Nylon Insert Lock Nut  |

## Floor & Side Boards



| ITEM | QTY | PART NUMBER     | DESCRIPTION                                       |
|------|-----|-----------------|---------------------------------------------------|
| 1    | 2   | 51167           | Wooden Side Top                                   |
| 2    | 2   | 51171           | Side Board                                        |
| 3    | 1   | 51172           | Right Box Spreader Floor Board                    |
| 4    | 1   | 51173           | Left Box Spreader Floor Board                     |
| 5    | 9   | 51174           | Box Spreader Floor Board                          |
| 6    | 18  | CB1/2-13X4.5CZ5 | Carriage Bolt - 1/2-13 x 4 1/2" Grade 5 Zinc      |
| 7    | 130 | FHSCS3/8-16X1.5 | Hex Bolt - 3/8"-16 x 1 1/2" Flat Socket Cap Screw |
| 8    | 130 | FW 3/8          | Flatwasher - 3/8" Zinc Plated USS                 |
| 9    | 18  | LN1/2-13NCZ5    | LN 1/2-13 Zinc Plated Nylon Insert Lock Nut       |
| 10   | 130 | LN3/8-16NCZ5    | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut       |

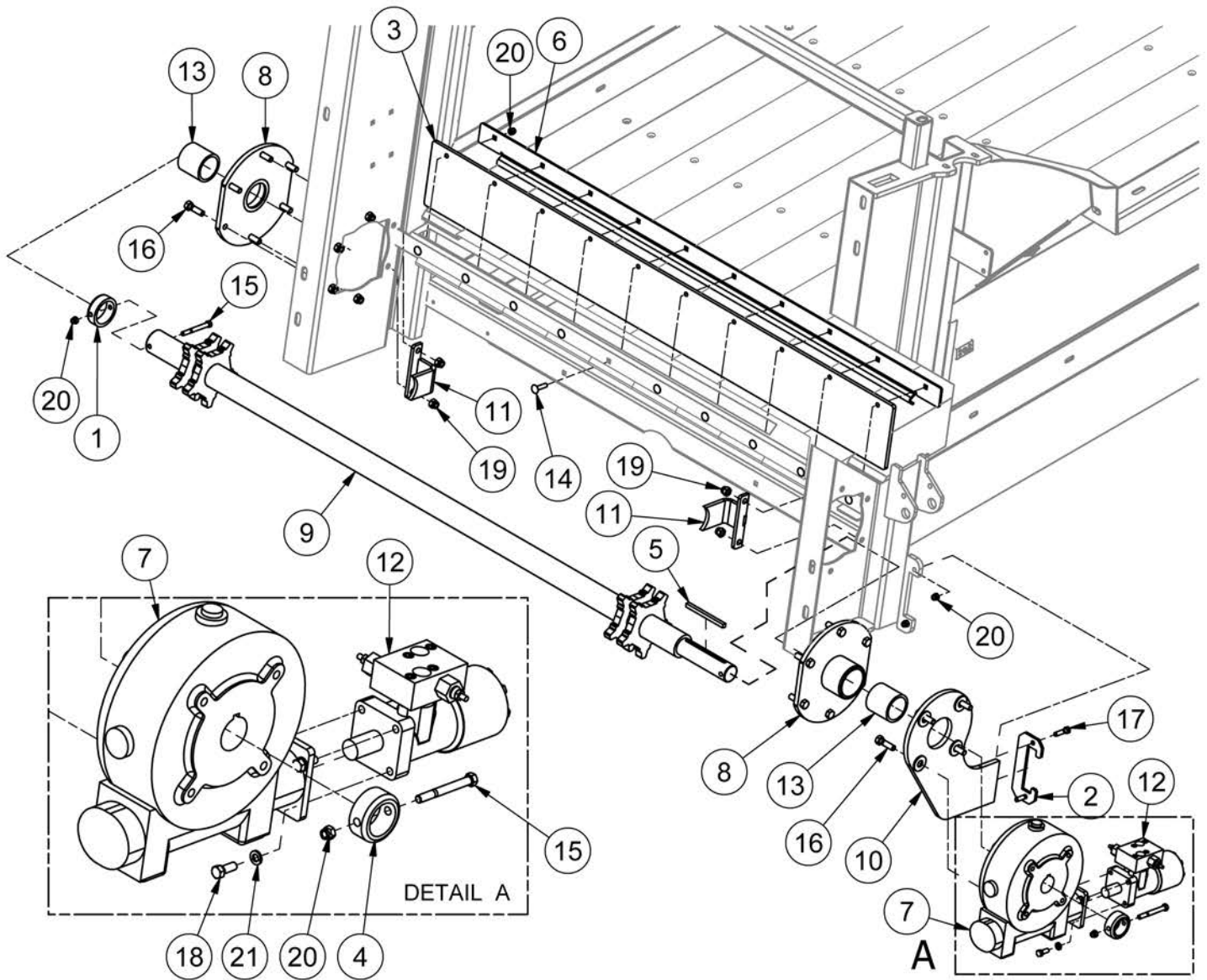
# Driveline



## Driveline

| ITEM | QTY | PART NUMBER         | DESCRIPTION                                            | NOTE                  |
|------|-----|---------------------|--------------------------------------------------------|-----------------------|
| 1    | 1   | 51365               | PTO Slide Collar & Shear Bolt                          | Up to SN 25NLS340     |
| 2    | 1   | 51366               | PTO Slide Collar & Overrunning Clutch                  | Up to SN 25NLS340     |
| 3    | 1   | 51783               | PTO Slide Collar & Shear Bolt                          | SN 25NLS341 - Current |
| 4    | 1   | 51784               | PTO Slide Collar & Overrunning Clutch                  | SN 25NLS341 - Current |
| 5    | 1   | 49810               | CV Splined Shaft 192.12"                               |                       |
| 6    | 1   | 51458               | LS PTO Shield                                          |                       |
| 7    | 5   | BEA UCP208-24R3     | Pillow Block Bearing, Triple Seal, Ductile Iron        |                       |
| 8    | 10  | FW 1/2              | Flatwasher - 1/2" Zinc Plated USS                      |                       |
| 9    | 10  | HB1/2-13X2Z5        | Hex Bolt 1/2-13x2 Gr.5 Zinc Plated Hex Cap Screw       |                       |
| 10   | 2   | HB3/8-16X0.75Z5     | Hex Bolt 3/8-16x3/4 Gr.5 Zinc Plated Hex Cap Screw     |                       |
| 11   | 10  | LN1/2-13NCZ5        | LN 1/2-13 Zinc Plated Nylon Insert Lock Nut            |                       |
| 12   | 3   | LN3/8-16NCZ5        | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut            |                       |
| 13   | 1   | SHSS1/2X1/2X3/8-16Z | Socket Head Shoulder Screws - 1/2 Shldr x 1/2 x 3/8-16 |                       |

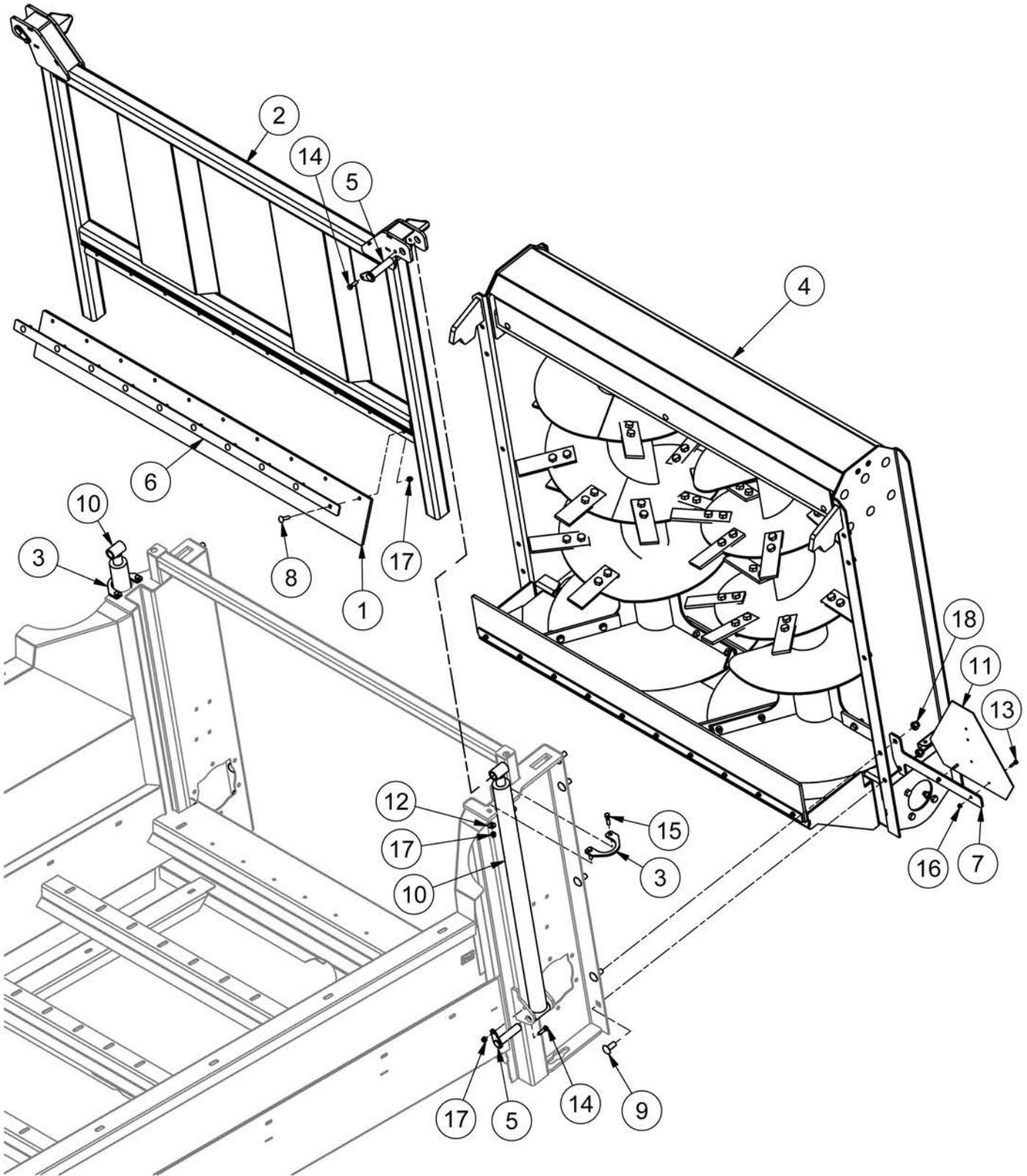
## Rear Apron Drive



## Rear Apron Drive

| ITEM | QTY | PART NUMBER      | DESCRIPTION                                             |
|------|-----|------------------|---------------------------------------------------------|
| 1    | 1   | 450-371          | Apron Shaft Bushing                                     |
| 2    | 1   | 450-433          | Torque Arm Retainer                                     |
| 3    | 1   | 450-441          | Rubber Seal                                             |
| 4    | 1   | 45113            | Apron Shaft Bushing                                     |
| 5    | 1   | 45130            | LS Series Key                                           |
| 6    | 1   | 47567            | Wiper Guide 62.5                                        |
| 7    | 1   | 50898            | CC131.3-25H1:3/4-4BF-RIGHT-M320-UD-RH2-SD-1 Gearbox     |
| 8    | 2   | 51038            | Rear Shaft Bushing                                      |
| 9    | 1   | 51107            | Rear Apron shaft                                        |
| 10   | 1   | 51109            | CNM350 Torque Arm Asm.                                  |
| 11   | 2   | 51194            | Box Spreader Rear Scraper                               |
| 12   | 1   | 51357            | Hydraulic Motor c/w Crossover                           |
| 13   | 2   | 700-431          | Apron Bushing                                           |
| 14   | 10  | CB3/8-16X1.5CZ5  | Carriage Bolt - 3/8-16 x 1 1/2" Grade 5 Zinc            |
| 15   | 2   | HB 3/8-16X3.5 Z5 | Hex Bolt 3/8-16x3 1/2 Grade 5 Zinc Plated Hex Cap Screw |
| 16   | 16  | HB1/2-13X1.75Z5  | Hex Bolt 1/2-13x1 3/4 Grade 5 Zinc Plated Hex Cap Screw |
| 17   | 2   | HB3/8-16X1.5Z5   | Hex Bolt 3/8-16x1 1/2 Grade 5 Zinc Plated Hex Cap Screw |
| 18   | 4   | HB3/8-16X1Z5     | Hex Bolt 3/8-16x1 Grade 5 Zinc Plated Hex Cap Screw     |
| 19   | 12  | LN1/2-13NCZ5     | LN 1/2-13 Zinc Plated Nylon Insert Lock Nut             |
| 20   | 14  | LN3/8-16NCZ5     | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut             |
| 21   | 4   | LW 3/8           | LW -3/8" Zinc Plated Medium Split                       |

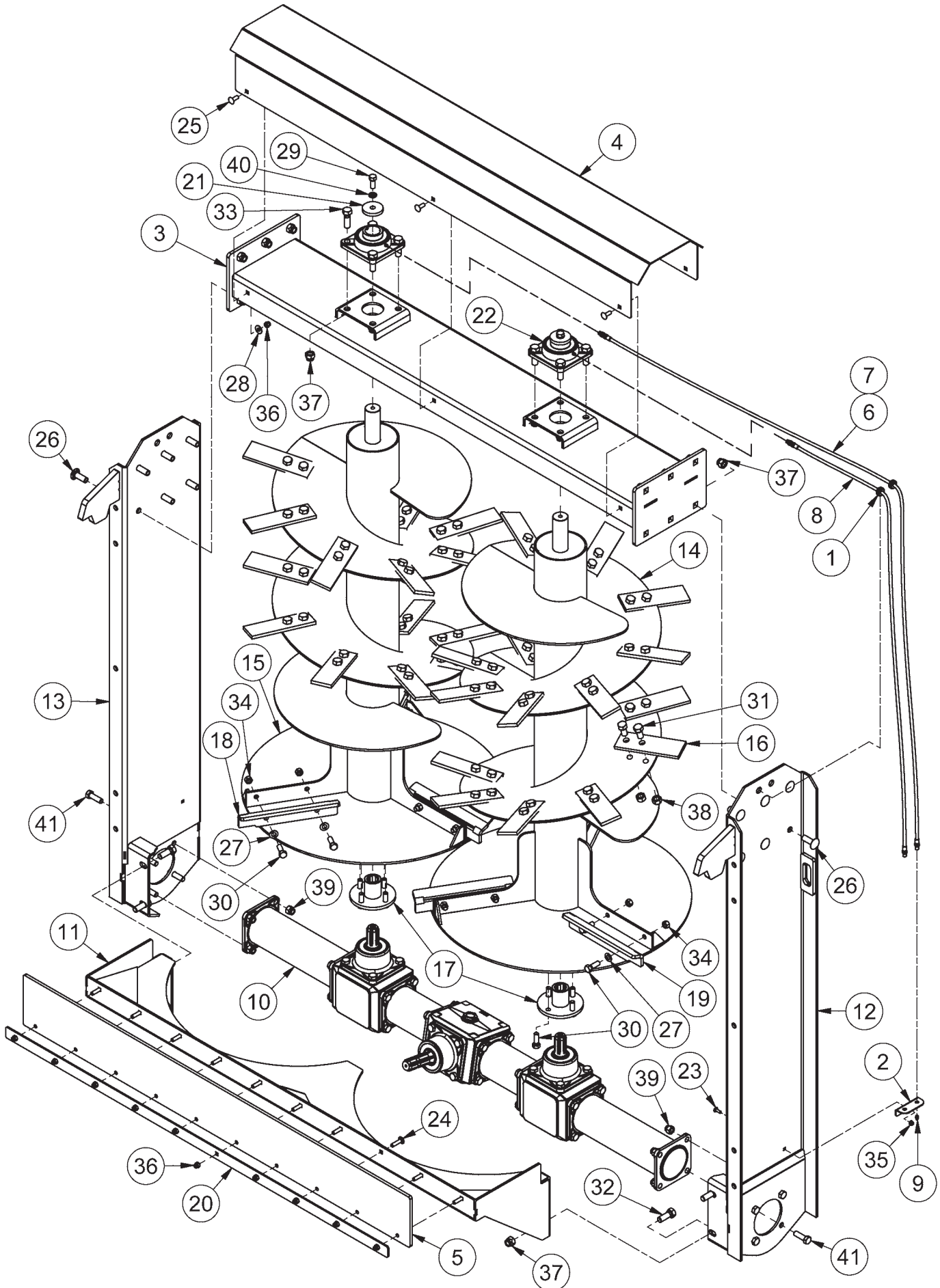
## Endgate



## Endgate

| ITEM | QTY | PART NUMBER     | DESCRIPTION                                             |
|------|-----|-----------------|---------------------------------------------------------|
| 1    | 2   | 450-441         | Rubber Seal                                             |
| 2    | 1   | 51065           | Box Spreader Endgate                                    |
| 3    | 2   | 51082           | Endgate Cylinder Support                                |
| 4    | 1   | 51091           | LS Series Beaters                                       |
| 5    | 4   | 51192           | Lift Gate Pin                                           |
| 6    | 1   | 600-790         | Rubber Hold Down                                        |
| 7    | 1   | 700-108         | SMV Sign Mount                                          |
| 8    | 20  | CB3/8-16X1.5CZ5 | Carriage Bolt - 3/8-16 x 1 1/2" Grade 5 Zinc            |
| 9    | 10  | CB5/8-11X1.5CZ5 | Carriage Bolt - 5/8-11 x 1 1/2" Grade 5 Zinc            |
| 10   | 2   | CYL 47972       | Cylinder 2" X 44" Closed X 36" Stroke 1.25" Rod         |
| 11   | 1   | DESMV           | Slow Moving Vehicle Sign                                |
| 12   | 4   | FW 3/8          | Flatwasher - 3/8" Zinc Plated USS                       |
| 13   | 2   | HB1/4-20X1Z5    | Hex Bolt 1/4-20x1 Grade 5 Zinc Plated Hex Cap Screw     |
| 14   | 4   | HB3/8-16X1.25Z5 | Hex Bolt 3/8-16x1 1/4 Grade 5 Zinc Plated Hex Cap Screw |
| 15   | 4   | HB3/8-16X1.5Z5  | Hex Bolt 3/8-16x1 1/2 Grade 5 Zinc Plated Hex Cap Screw |
| 16   | 2   | LN1/4-20NCZ5    | LN 1/4-20 Zinc Plated Nylon Insert Lock Nut             |
| 17   | 28  | LN3/8-16NCZ5    | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut             |
| 18   | 10  | LN5/8-11NCZ5    | LN 5/8-11 Zinc Plated Nylon Insert Lock Nut             |

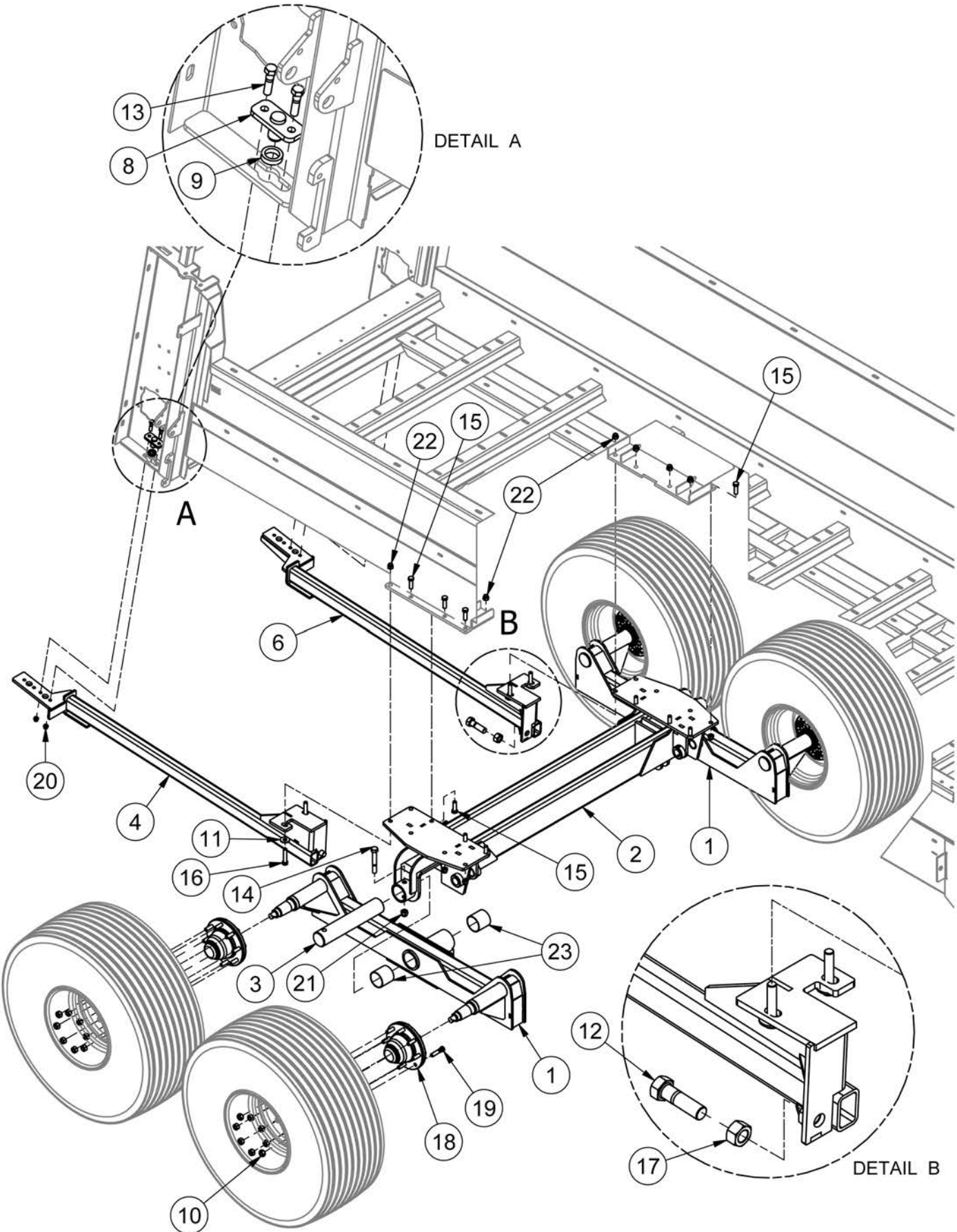
# Beaters



## Beaters

| ITEM | QTY | PART NUMBER      | DESCRIPTION                                          | NOTE          |
|------|-----|------------------|------------------------------------------------------|---------------|
| 1    | 2   | 30862            | Grommet                                              |               |
| 2    | 1   | 37849            | Beater Greaseline Mount                              |               |
| 3    | 1   | 42226            | Top Beater Crosser                                   |               |
| 4    | 1   | 450-405          | Top Beater Cover                                     |               |
| 5    | 1   | 450-441          | Rubber Seal                                          |               |
| 6    | 1   | 45159            | LS Grease Line Kit                                   | Inc. Item 7-9 |
| 7    | 1   | 45160            | LS Long Grease Line                                  |               |
| 8    | 1   | 45161            | LS Short Grease Line                                 |               |
| 9    | 2   | GR 1/4 X 28      | Grease Fitting 1/4-28 Straight Standard Zerk         |               |
| 10   | 1   | 50899            | ST8 Gearbox                                          |               |
| 11   | 1   | 51092            | Spinner Pan                                          |               |
| 12   | 1   | 51098            | Left Side Beater Frame                               |               |
| 13   | 1   | 51101            | Right Side Beater Frame                              |               |
| 14   | 1   | 51114            | Left Beater (Box Spreader)                           |               |
| 15   | 1   | 51115            | Right Beater (Box Spreader)                          |               |
| 16   | 32  | 51122            | Beater Paddle                                        |               |
| 17   | 2   | 51125            | Shaft Mount                                          |               |
| 18   | 3   | 51408            | LS Cupped Paddle - Right                             |               |
| 19   | 3   | 51410            | LS Cupped Paddle - Left                              |               |
| 20   | 1   | 600-790          | Rubber Hold Down                                     |               |
| 21   | 2   | 700-157          | Load Bearing Washer                                  |               |
| 22   | 2   | BEA UCF209-28R3  | Flange Bearing, Triple Seal, Ductile Iron            |               |
| 23   | 1   | CB1/4-20X0.75CZ5 | Carriage Bolt - 1/4-20 x 3/4" Grade 5 Zinc           |               |
| 24   | 10  | CB3/8-16X1.5CZ5  | Carriage Bolt - 3/8-16 x 1 1/2" Grade 5 Zinc         |               |
| 25   | 6   | CB3/8-16X1CZ5    | Carriage Bolt - 3/8-16 x 1" Grade 5 Zinc             |               |
| 26   | 12  | CB5/8-11X1.75CZ5 | Carriage Bolt - 5/8-11 x 1 3/4" Grade 5 Zinc         |               |
| 27   | 11  | FW 1/2           | Flatwasher - 1/2" Zinc Plated USS                    |               |
| 28   | 6   | FW 3/8           | Flatwasher - 3/8" Zinc Plated USS                    |               |
| 29   | 2   | HB1/2-13X1.25Z5  | Hex Bolt 1/2-13x1 1/4 Gr 5 Zinc Plated Hex Cap Screw |               |
| 30   | 20  | HB1/2-13X1.5Z5   | Hex Bolt 1/2-13x1 1/2 Gr 5 Zinc Plated Hex Cap Screw |               |
| 31   | 64  | HB5/8-11X1.25Z5  | Hex Bolt 5/8-11x1 1/4 Gr.5 Zinc Plated Hex Cap Screw |               |
| 32   | 4   | HB5/8-11X1.75Z5  | Hex Bolt 5/8-11x1 3/4 Gr 5 Zinc Plated Hex Cap Screw |               |
| 33   | 8   | HB5/8-11X2Z5     | Hex Bolt 5/8-11x2 Gr 5 Zinc Plated Hex Cap Screw     |               |
| 34   | 12  | LN1/2-13TCZ5     | LN1/2-13 Gr.C Zinc Top Lock Nut                      |               |
| 35   | 1   | LN1/4-20NCZ5     | LN 1/4-20 Zinc Plated Nylon Insert Lock Nut          |               |
| 36   | 16  | LN3/8-16NCZ5     | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut          |               |
| 37   | 24  | LN5/8-11NCZ5     | LN 5/8-11 Zinc Plated Nylon Insert Lock Nut          |               |
| 38   | 64  | LN5/8-11TCZ5     | LN5/8-11 Gr.C Zinc Top Lock Nut                      |               |
| 39   | 8   | LNM14-2CZ5       | Locknut - M14-2 Zinc Plated Nylon Insert Lock Nut    |               |
| 40   | 2   | LW 1/2           | LW -1/2" Zinc Plated Medium Split                    |               |
| 41   | 8   | M14X45X2         | Metric Bolt                                          |               |

Tandem Axle

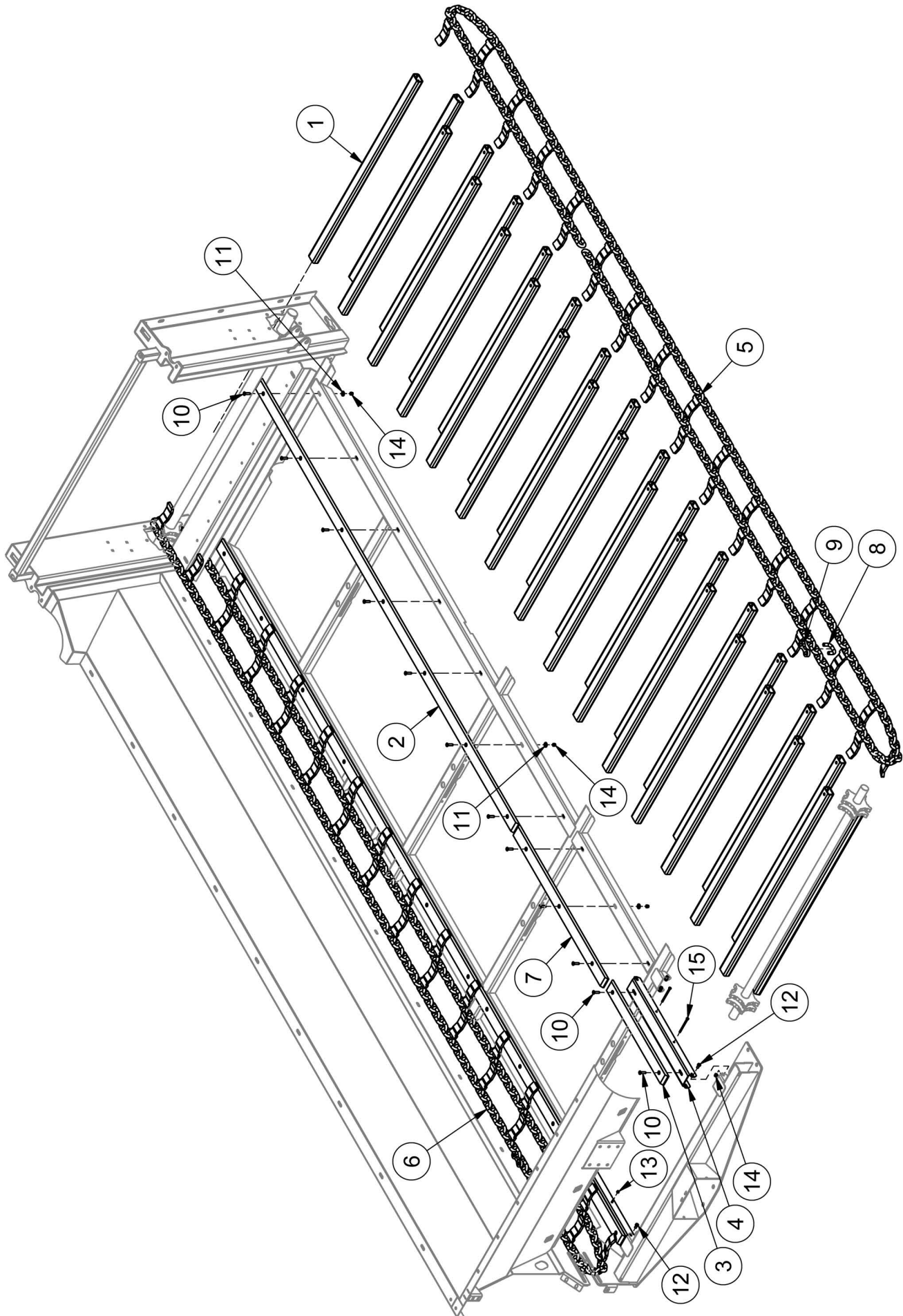


## Tandem Axle

| ITEM | QTY | PART NUMBER   | DESCRIPTION                                        | NOTE               |
|------|-----|---------------|----------------------------------------------------|--------------------|
| 1    | 2   | 51030         | Box Spreader Walking Beam                          |                    |
| 2    | 1   | 51087         | Box Spreader Tandem Axle                           |                    |
| 3    | 2   | 51303         | Walking Beam Pin                                   |                    |
| 4    | 1   | 53445         | Shifted Axle Right LS Support                      | 25NLS341 - Current |
| 5    | 1   | 53468         | Right LS Support                                   | Up to 25NLS340     |
| 6    | 1   | 53447         | Shifted Axle Left LS Support                       | 25NLS341 - Current |
| 7    | 1   | 53467         | Left LS Support                                    | Up to 25NLS340     |
| 8    | 2   | 53453         | LS Support Pin                                     |                    |
| 9    | 2   | 53455         | Spacer Ring                                        |                    |
| 10   | 32  | F58-CONE NUT  | 5/8" Wheel Nut                                     |                    |
| 11   | 4   | FW 5/8        | Flatwasher - 5/8" Zinc Plated USS                  |                    |
| 12   | 2   | HB1-12X3.5Z5  | Hex Bolt 1-12x3 1/2 Gr.5 Zinc Plated Hex Cap Screw |                    |
| 13   | 4   | HB1/2-13X2Z5  | Hex Bolt 1/2-13x2 Gr.5 Zinc Plated Hex Cap Screw   |                    |
| 14   | 2   | HB3/4-10X5Z5  | Hex Bolt 3/4-10x5 Gr.5 Zinc Plated Hex Cap Screw   |                    |
| 15   | 12  | HB5/8-18X2YZ8 | Hex Bolt 5/8-18x2 Gr.8 Zinc Hex Cap Screw          |                    |
| 16   | 4   | HB5/8-18X3YZ8 | Hex Bolt 5/8-18x3 Grade 8 Zinc Hex Cap Screw       |                    |
| 17   | 2   | HN1-12FZ5     | Hex Nut 1-12 NF Fine Thread                        |                    |
| 18   | 4   | HUB 8000      | Complete Assembly HUB8000                          |                    |
| 19   | 8   | F58-225       | Wheel Stud for 12000 # Hub                         |                    |
| 20   | 4   | LN1/2-13NCZ5  | LN 1/2-13 Zinc Plated Nylon Insert Lock Nut        |                    |
| 21   | 2   | LN3/4-10NCZ5  | LN 3/4-10 Zinc Plated Nylon Insert Lock Nut        |                    |
| 22   | 16  | LN5/8-18NFZ5  | Center Locknuts (5/8-18) 2-Way Fine Thread         |                    |
| 23   | 4   | TX1SI-4852-48 | Bushing TX1 - 3.25 OD x 3 ID x 3"lg                |                    |

| NITRO 440LS TIRE CHART |                 |                    |
|------------------------|-----------------|--------------------|
| AXLE TYPE              | PART NUMBER     | TIRE SIZE          |
| Tandem                 | WHE 11R225-U    | Used Tire 11Rx22.5 |
| Tandem                 | WHE 165161      | 16.5L X 16.1       |
| Tandem                 | WHE 550X45X22.5 | 550x45x22.5 16 Ply |

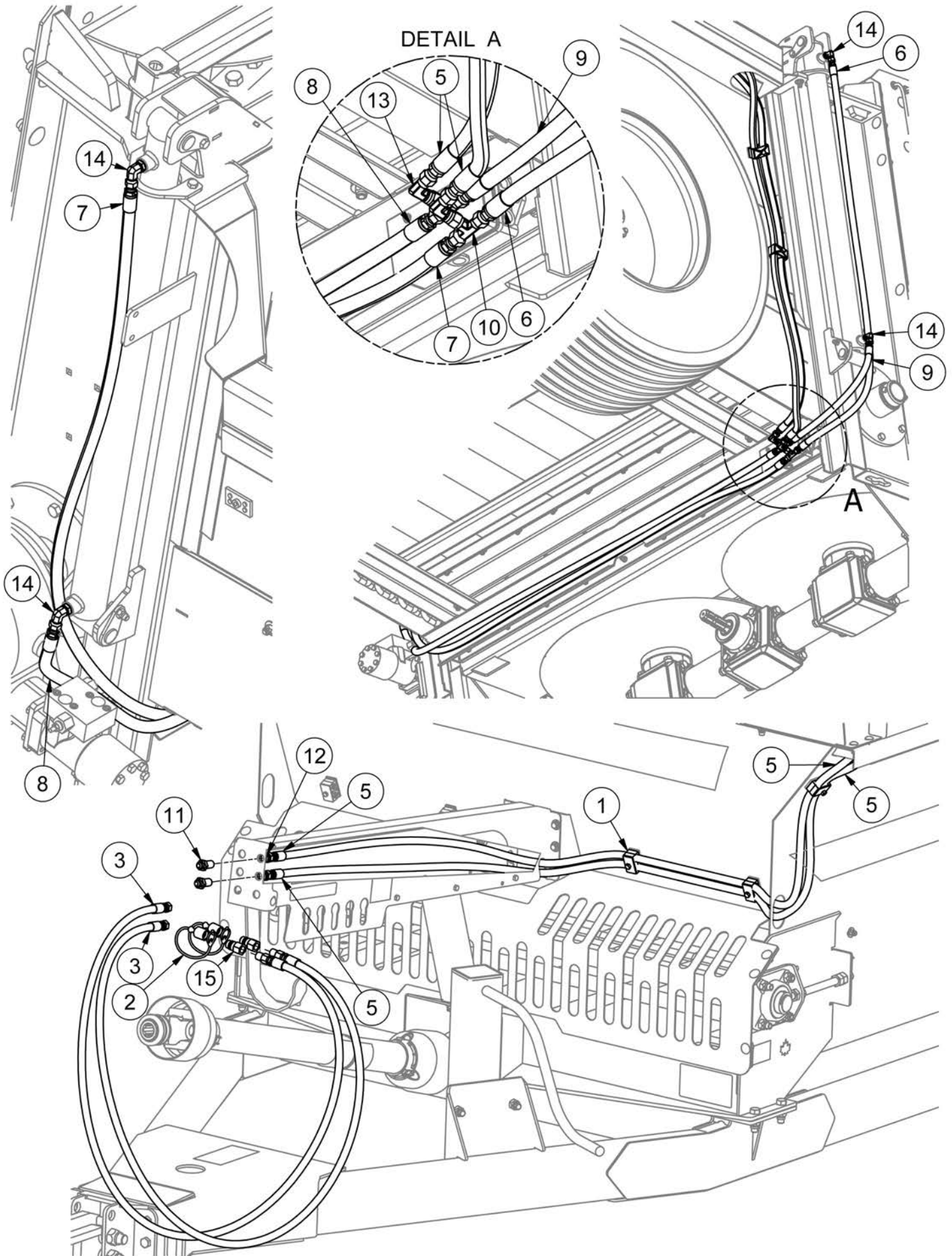
## Apron Runners



## Apron Runners

| ITEM | QTY | PART NUMBER     | DESCRIPTION                                           |
|------|-----|-----------------|-------------------------------------------------------|
| 1    | 30  | 37820           | Slat                                                  |
| 2    | 2   | 50990           | Rear Wear Board                                       |
| 3    | 2   | 50992           | Removable Wear Board                                  |
| 4    | 2   | 51158           | Chain Return Slide                                    |
| 5    | 1   | 51160           | Left Apron Chain                                      |
| 6    | 1   | 51161           | Right Apron Chain                                     |
| 7    | 2   | 51181           | Front Wear Board                                      |
| 8    | 2   | 400-889         | Chain Connector Link                                  |
| 9    | 2   | 400-890         | Chain Connector Link Tab                              |
| 10   | 24  | FHSCS3/8-16X1.5 | Hex Bolt - 3/8"-16 x 1 1/2" Flat Socket Cap Screw     |
| 11   | 24  | FW 3/8          | Flatwasher - 3/8" Zinc Plated USS                     |
| 12   | 8   | HB3/8-16X0.75Z5 | Hex Bolt 3/8-16x3/4 Grade 5 Zinc Plated Hex Cap Screw |
| 13   | 4   | LN1/4-20NCZ5    | LN 1/4-20 Zinc Plated Nylon Insert Lock Nut           |
| 14   | 32  | LN3/8-16NCZ5    | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut           |
| 15   | 4   | HB1/4-20X4Z5    | Hex Bolt 1/4-20x4 Grade 5 Zinc Plated Hex Cap Screw   |

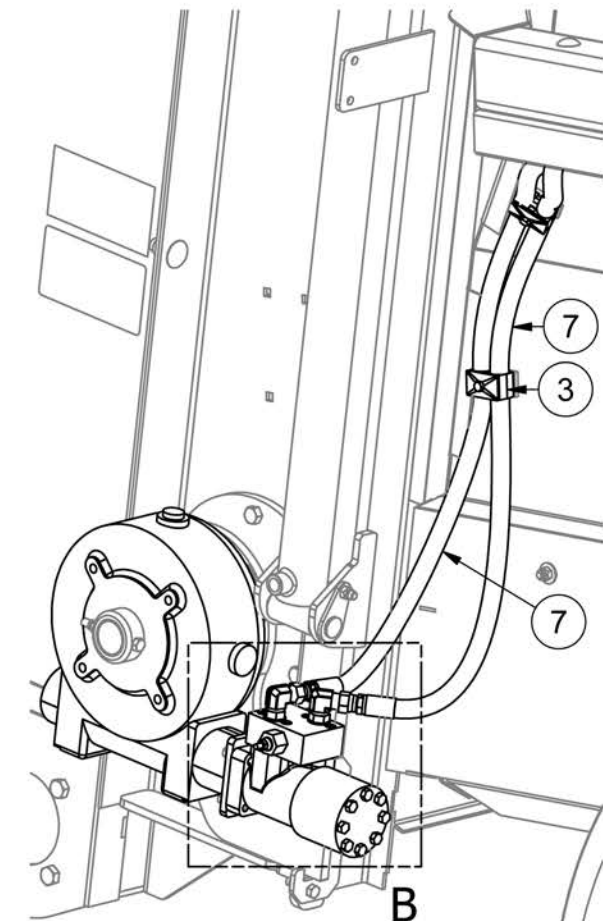
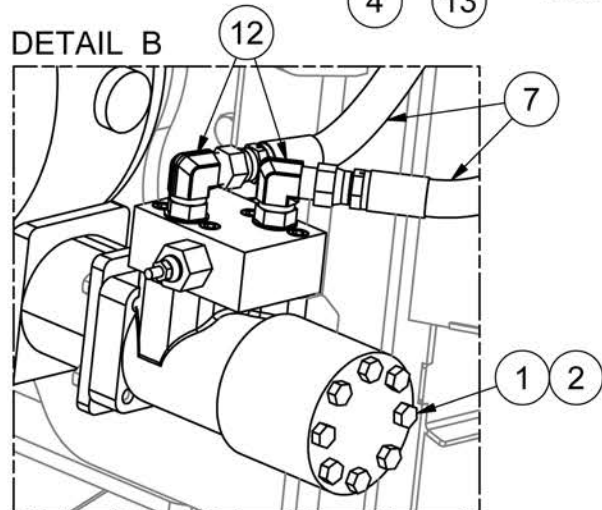
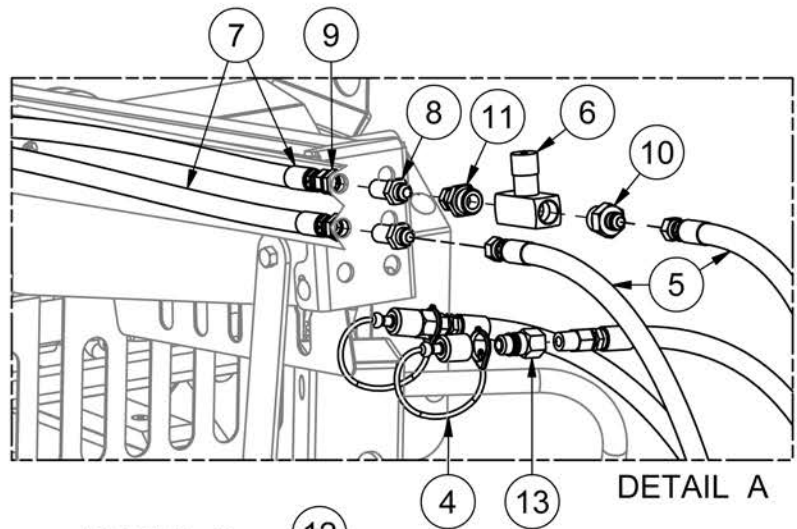
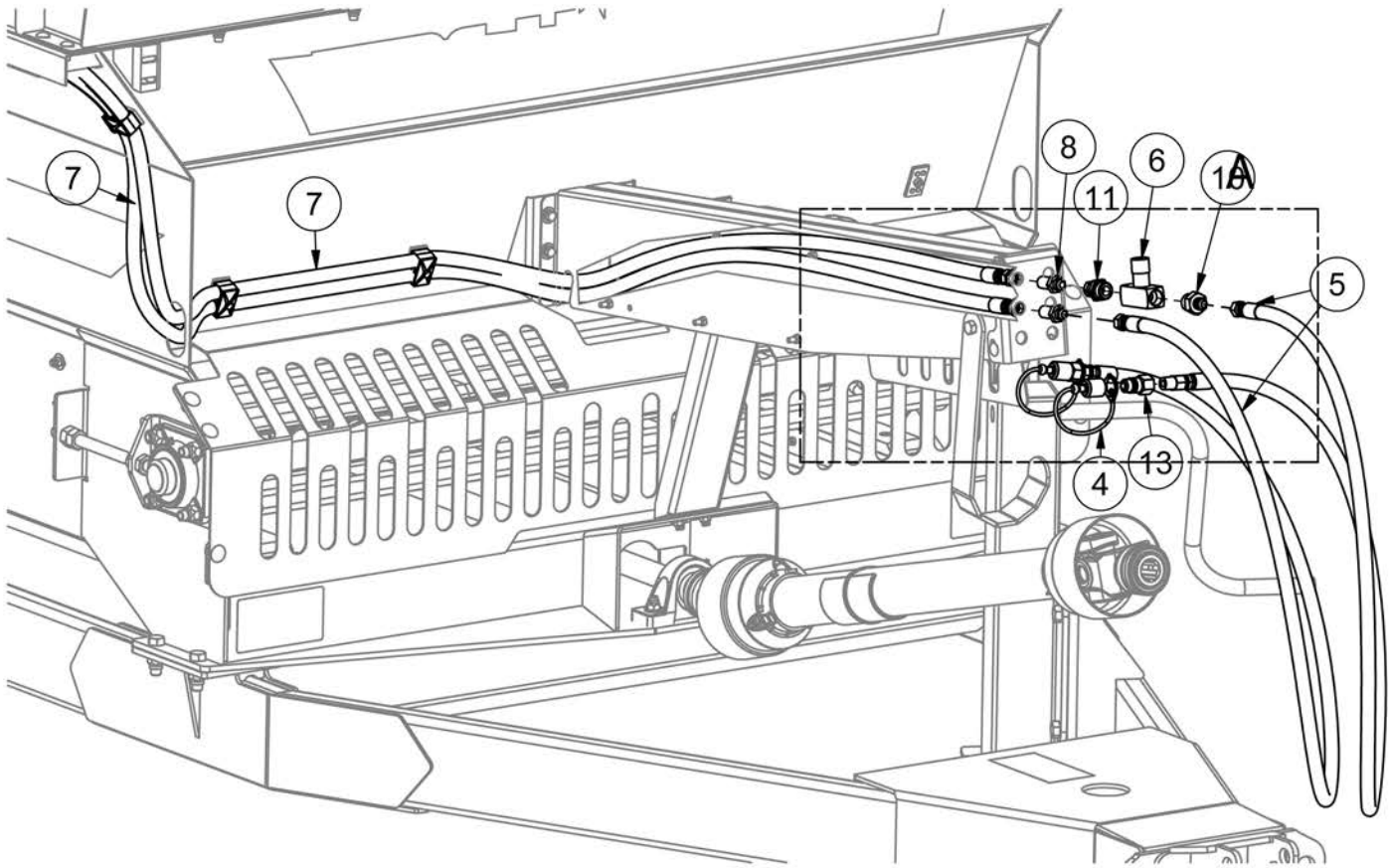
## Hydraulics - Endgate Cylinders



## Hydraulics - Endgate Cylinders

| ITEM | QTY | PART NUMBER     | DESCRIPTION                                 |
|------|-----|-----------------|---------------------------------------------|
| 1    | 5   | LA-HOSE CLAMP   | Hose Clamp - 3/8"                           |
| 2    | 2   | 22946-1         | Dust Cap, 1/2", Female, Black Colour        |
| 3    | 2   | 30654           | HH87- 6AT1(8FJXH-8MP) HCL 87"               |
| 5    | 2   | 43872           | HH343 - 6AT1(8FJX-6FJX) HCL 343"            |
| 6    | 1   | 45100           | Hose - HH59- 6AT1(6FJX-6FJX) HCL 59"        |
| 7    | 1   | 45102           | Hose - HH107- 6AT1(6FJX-6FJX) HCL 107"      |
| 8    | 1   | 48157           | Hose - HH71 - 6AT1 (6FJX,6FJX) HCL 71"      |
| 9    | 1   | 48756           | Hose - HH21 - 6AT1(6FJXH,6FJXH) HCL 21"     |
| 10   | 2   | HF 2603-6-6-6   | Male JIC Tee                                |
| 11   | 2   | HF 2700LN-08-08 | Hydraulic Fitting - MJIC to MJIC            |
| 12   | 2   | HF 306-8        | Hyd Fitting 1/2 Adjustable Locknut          |
| 13   | 2   | HF 6500-6-6     | Elbow 6MJIC to 6FJIC                        |
| 14   | 4   | HF 6801-6-6     | Hydraulic Fitting - 90 Degree JIC to O-Ring |
| 15   | 2   | HF 8010-4       | Quickcoupler 1/2" Male Tip                  |

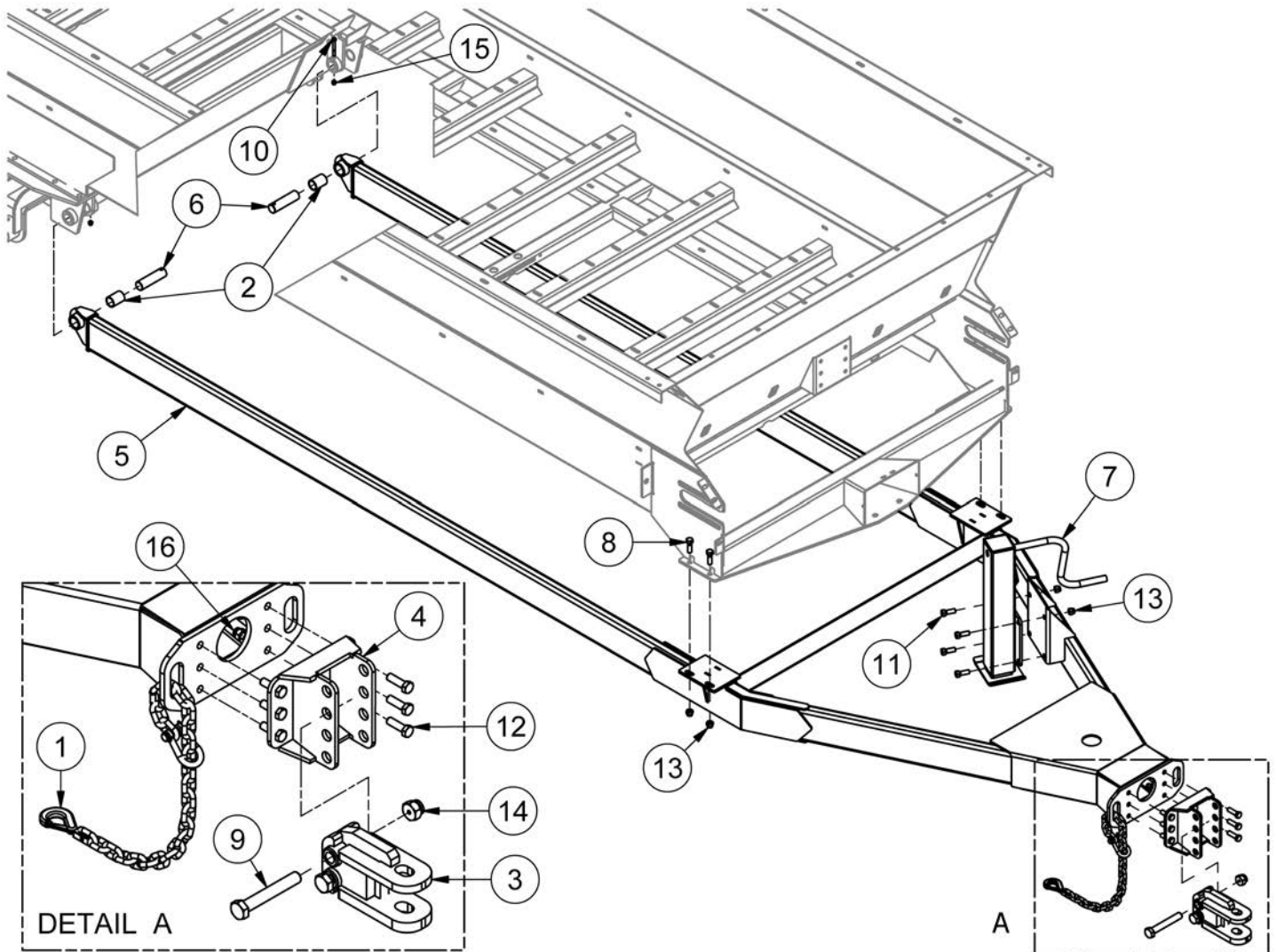
## Hydraulics - Apron Drive Circuits



## Hydraulics - Apron Drive Circuits

| ITEM | QTY | PART NUMBER      | DESCRIPTION                              |
|------|-----|------------------|------------------------------------------|
| 1    | 1   | 51357            | Hydraulic Motor c/w Crossover            |
| 2    | 1   | SK-SMRS-SK       | Gearbox Motor Seal Kit                   |
| 3    | 5   | LA-HOSE CLAMP .5 | Hose Clamps for 1/2 Hose                 |
| 4    | 2   | 22946-2          | Dust Cap, 1/2", Female, Yellow Colour    |
| 5    | 2   | 30661            | HH83- 8AT1(8FJXH-8MP) HCL83"             |
| 6    | 1   | 30857            | Flow Control Valve - 3/4"                |
| 7    | 2   | 45101            | HH335- 8AT1(8FJX-8FJX) HCL 335"          |
| 8    | 2   | HF 2700LN-08-08  | Hydraulic Fitting - MJIC to MJIC         |
| 9    | 2   | HF 306-8         | Hyd Fitting 1/2 Adjustable Locknut       |
| 10   | 1   | HF 6400-8-12     | Hyd. Fitting                             |
| 11   | 1   | HF 6402-12-8     | Hyd. Fitting #12 Male O-Ring to #8 F JIC |
| 12   | 2   | HF 6801-8-10     | Hyd. Fitting - 1/2" JIC - 5/8" 90° Elbow |
| 13   | 2   | HF 8010-4        | Quickcoupler 1/2" Male Tip               |

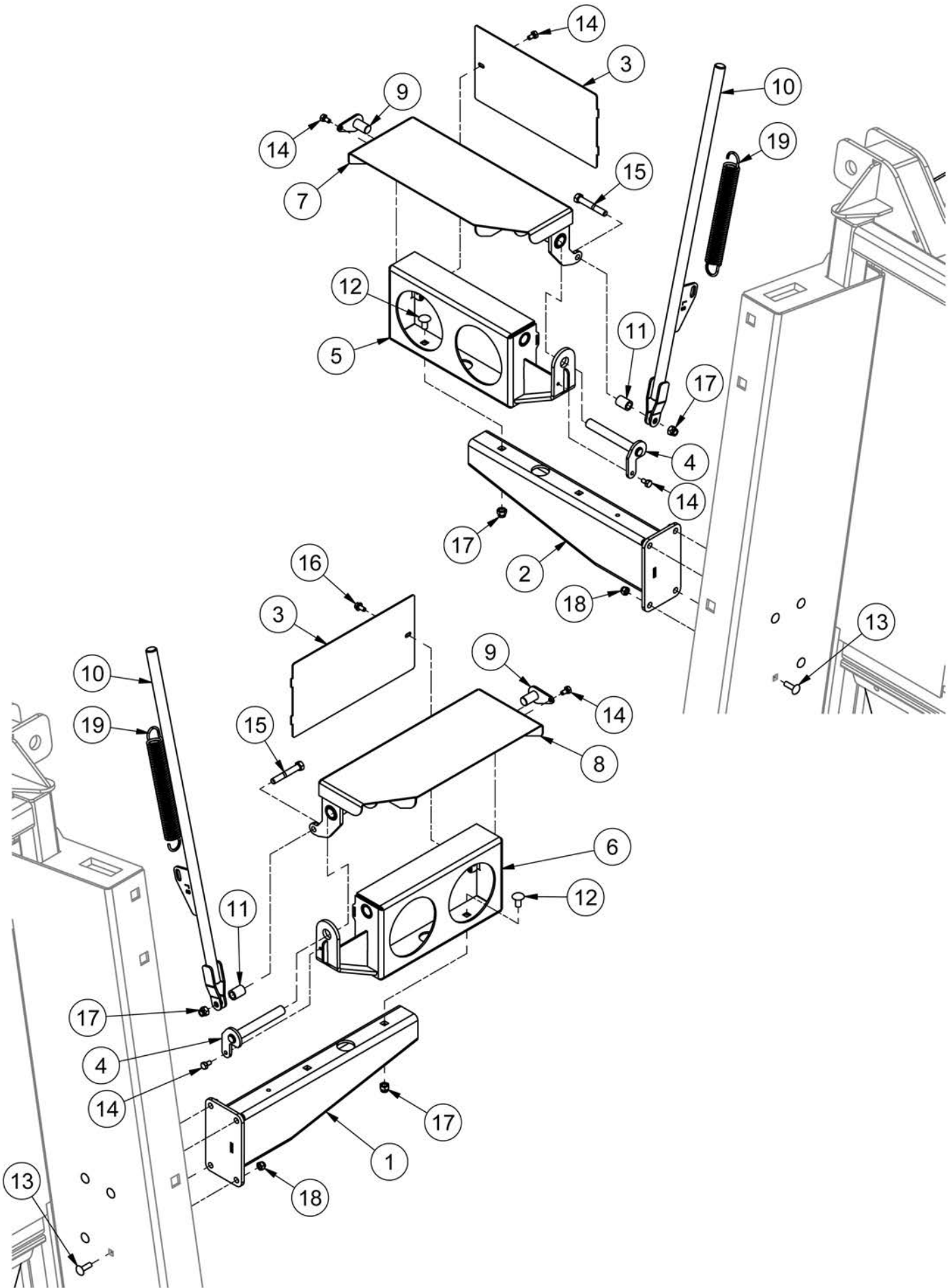
## Tongue



| ITEM | QTY | PART NUMBER     | DESCRIPTION                                   | REV | NOTE               |
|------|-----|-----------------|-----------------------------------------------|-----|--------------------|
| 1    | 1   | 25262           | Safety Chain 20000 # 60"                      |     |                    |
| 2    | 2   | 37845           | Polygon 1.75 OD x1.52 ID x2.38 LG             |     |                    |
| 3    | 1   | 40471           | Clevis Hitch                                  |     |                    |
| 4    | 1   | 42146           | Hitch Pull Unit                               |     |                    |
| 5    | 1   | 51156           | Box Spreader Tongue                           | 5   | 25NLS341 - Current |
|      |     |                 |                                               | 4   | Up to 25NLS340     |
| 6    | 2   | 700-470         | Tongue Pivot Pin                              |     |                    |
| 7    | 1   | BW-1005         | Jack                                          |     |                    |
| 8    | 4   | HB 5/8-11X2 Z5  | Hex Bolt 5/8-11x2 Gr 5 Zinc Hex Cap Screw     |     |                    |
| 9    | 2   | HB1-14X6.5YZ8   | Hex Bolt 1-14x6 1/2 Gr 8 Zinc Hex Cap Screw   |     |                    |
| 10   | 2   | HB3/8-16X3Z5    | Hex Bolt 3/8-16x3 Gr 5 Zinc Hex Cap Screw     |     |                    |
| 11   | 4   | HB5/8-11X1.75Z5 | Hex Bolt 5/8-11x1 3/4 Gr 5 Zinc Hex Cap Screw |     |                    |
| 12   | 6   | HB5/8-18X2YZ8   | Hex Bolt 5/8-18x2 Gr 8 Zinc Hex Cap Screw     |     |                    |
| 13   | 8   | LN5/8-11NCZ5    | LN 5/8-11 Zinc Plated Nylon Insert Lock Nut   |     |                    |
| 14   | 2   | LN1-14NFBZ5     | Center Locknuts (1-14) 2-Way Fine Thread      |     |                    |
| 15   | 3   | LN3/8-16NCZ5    | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut   |     |                    |
| 16   | 6   | LN5/8-18NFBZ8   | 5/8-18 Gr.8 Zinc Nylon Lock Nut               |     |                    |

## Section 2 - Options

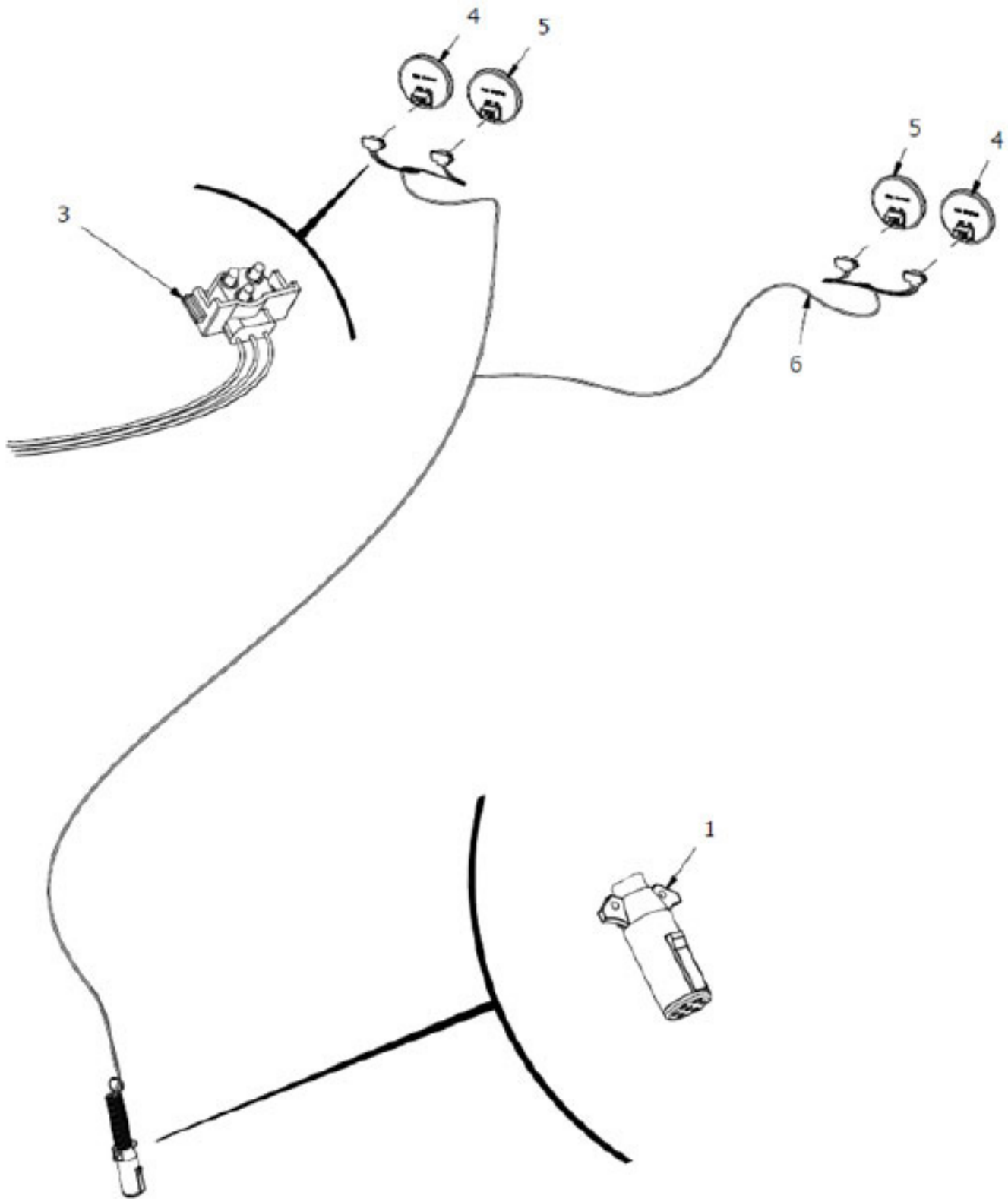
## 43622 - Mechanical Light Kit



## 43622 - Mechanical Light Kit

| ITEM | QTY | PART NUMBER      | DESCRIPTION                                             |
|------|-----|------------------|---------------------------------------------------------|
| 1    | 1   | 42139            | Right Light Bracket                                     |
| 2    | 1   | 42140            | Left Light Bracket                                      |
| 3    | 2   | 43178            | Light Box Cover                                         |
| 4    | 2   | 43204            | Inner Pin                                               |
| 5    | 1   | 43206            | Left Light Box                                          |
| 6    | 1   | 43207            | Right Light Box                                         |
| 7    | 1   | 43208            | Left Light Cover                                        |
| 8    | 1   | 43209            | Right Light Cover                                       |
| 9    | 2   | 43213            | Outer Pin                                               |
| 10   | 2   | 51185            | Light Push Arm                                          |
| 11   | 2   | 51375            | LS Series Light Bushing                                 |
| 12   | 4   | CB3/8-16X0.75CZ5 | Carriage Bolt - 3/8-16 x 3/4" Grade 5 Zinc              |
| 13   | 8   | CB5/16-18X1CZ5   | Carriage Bolt - 5/16-18 x 1" Grade 5 Zinc               |
| 14   | 5   | HB1/4-20X0.5Z5   | Hex Bolt 1/4-20x1/2 Grade 5 Zinc Plated Hex Cap Screw   |
| 15   | 2   | HB3/8-16X2.5Z5   | Hex Bolt 3/8-16x2 1/2 Grade 5 Zinc Plated Hex Cap Screw |
| 16   | 1   | HBC1/4X0.5       | Hex Bolt Cerrated 1/4-20 x 1/2 Zinc Flange Bolt         |
| 17   | 6   | LN3/8-16NCZ5     | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut             |
| 18   | 8   | LN5/16-18NCZ5    | LN 5/16-18 Zinc Plated Nylon Insert Lock Nut            |
| 19   | 2   | PP00679          | Spring, .135 x .1 x 7.5"                                |

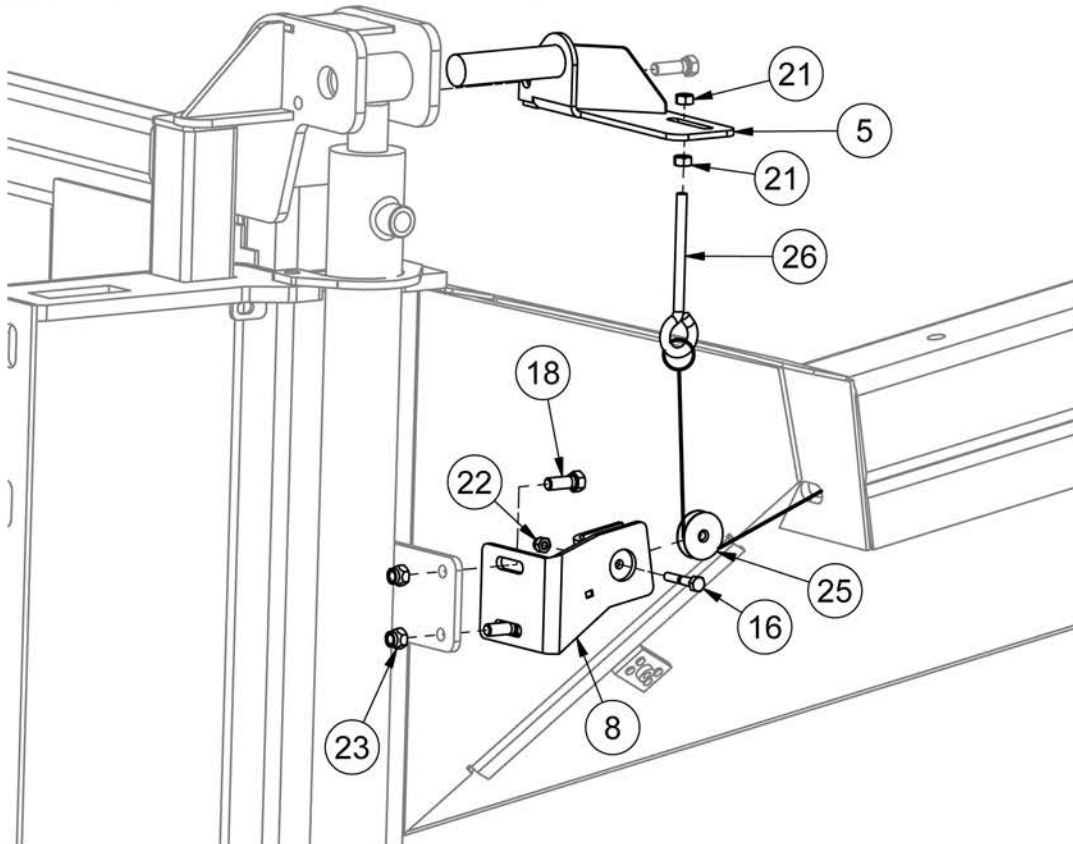
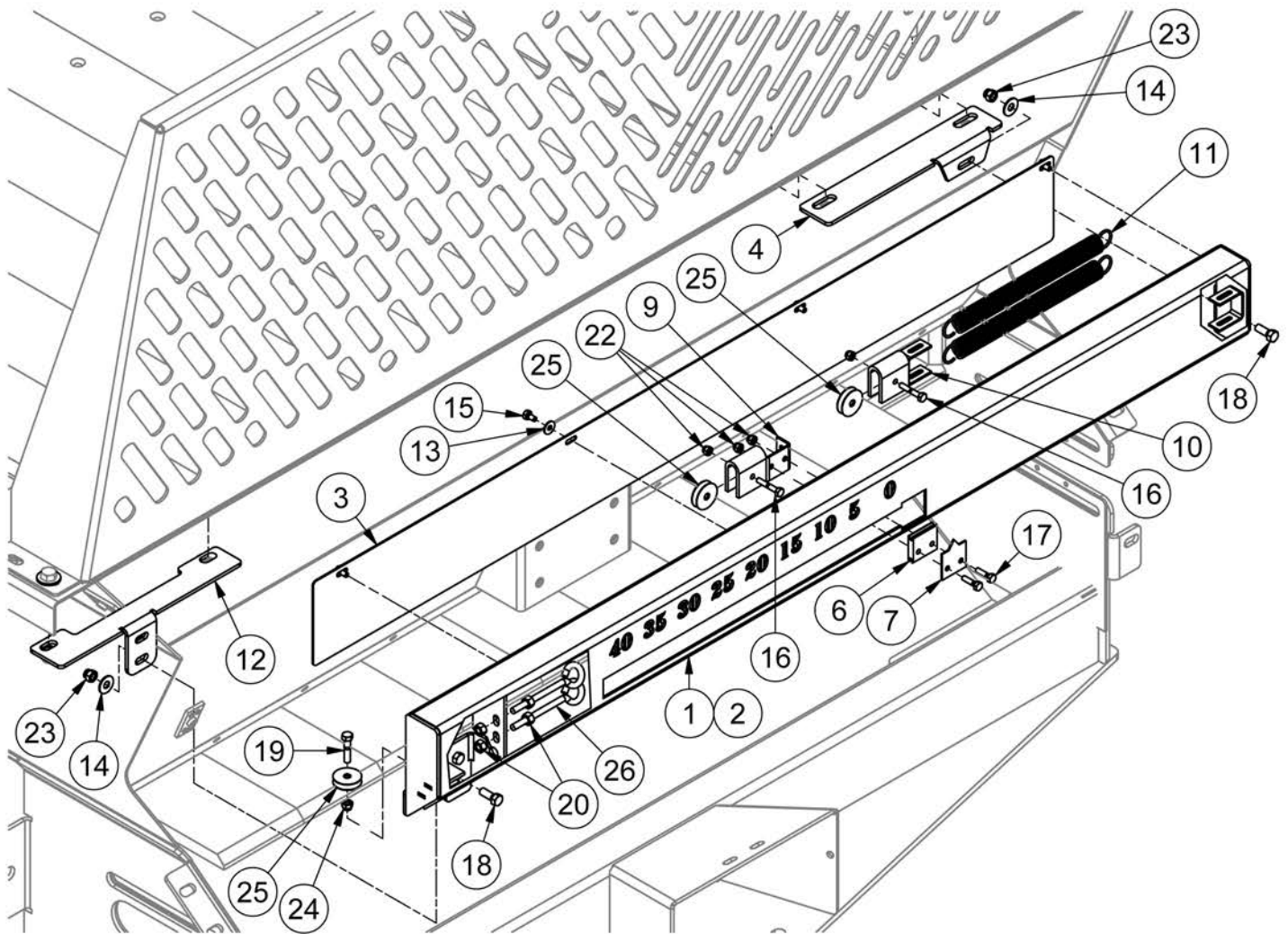
## Light Kit Wiring Harness



## Light Kit Wiring Harness

| ITEM | QTY | PART NUMBER   | DESCRIPTION             |
|------|-----|---------------|-------------------------|
| 1    | 1   | TL550-200-117 | Female 7 Pin Plug       |
|      | 4   | 31798         | Grommet                 |
| 3    | 4   | 31790         | Individual Light Wiring |
| 4    | 2   | 31788         | Red Tail Light          |
| 5    | 2   | 31789         | Amber Tail Light        |
| 6    | 1   | 36924         | Light Wiring Harness    |
|      | 1   | 31573         | Complete Wiring         |

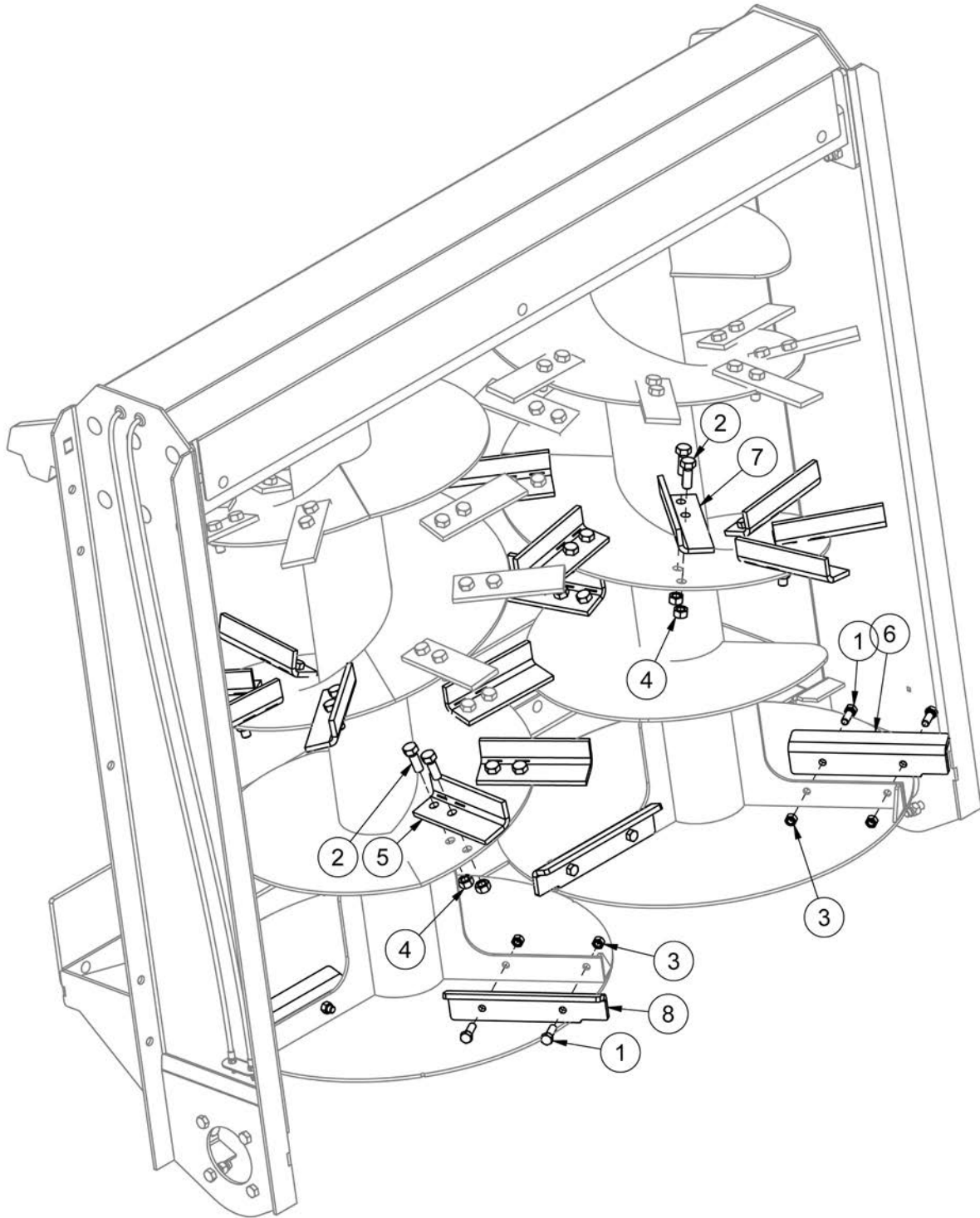
## Endgate Indicator



## Endgate Indicator

| ITEM | QTY | PART NUMBER     | DESCRIPTION                                              | NOTE      |
|------|-----|-----------------|----------------------------------------------------------|-----------|
| 1    | 1   | 51900           | Option - LS Series Indicator Kit                         | All Items |
| 2    | 1   | 45136           | LS Series Indicator                                      |           |
| 3    | 1   | 45137           | Indicator Back Panel                                     |           |
| 4    | 1   | 45144           | Indicator Mount Plate                                    |           |
| 5    | 1   | 45146           | Endgate Cable Pin                                        |           |
| 6    | 1   | 45153           | Indicator Slider                                         |           |
| 7    | 1   | 45154           | Indicator Arrow                                          |           |
| 8    | 1   | 45313           | Pulley Mount                                             |           |
| 9    | 1   | 45407           | Indicator Slider Mount                                   |           |
| 10   | 1   | 45410           | Spring Tensioner Pulley                                  |           |
| 11   | 2   | 46086           | Spring 12.0 X 1.0 X .105                                 |           |
| 12   | 1   | 51815           | Indicator Mount Plate                                    |           |
| 13   | 4   | FW 1/4          | Flatwasher - 1/4" Zinc Plated USS                        |           |
| 14   | 3   | FW 3/8          | Flatwasher - 3/8" Zinc Plated USS                        |           |
| 15   | 4   | HB1/4-20X0.5Z5  | Hex Bolt 1/4-20x1/2 Grade 5 Zinc Plated Hex Cap Screw    |           |
| 16   | 3   | HB1/4-20X1.5Z5  | Hex Bolt 1/4-20x1 1/2 Grade 5 Zinc Plated Hex Cap Screw  |           |
| 17   | 2   | HB1/4-20X1Z5    | Hex Bolt 1/4-20x1 Grade 5 Zinc Plated Hex Cap Screw      |           |
| 18   | 5   | HB3/8-16X1Z5    | Hex Bolt 3/8-16x1 Grade 5 Zinc Plated Hex Cap Screw      |           |
| 19   | 1   | HB5/16-18X1.5Z5 | Hex Bolt 5/16-18x1 1/2 Grade 5 Zinc Plated Hex Cap Screw |           |
| 20   | 4   | HN3/8-16CZ5     | Hex Nut 3/8"-16 Grade 5 Zinc Plated Finished             |           |
| 21   | 2   | HN5/16-18CZ5    | Hex Nut 5/16"-18 Grade 5 Zinc Plated Finished            |           |
| 22   | 9   | LN1/4-20NCZ5    | LN 1/4-20 Zinc Plated Nylon Insert Lock Nut              |           |
| 23   | 5   | LN3/8-16NCZ5    | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut              |           |
| 24   | 1   | LN5/16-18NCZ5   | LN 5/16-18 Zinc Plated Nylon Insert Lock Nut             |           |
| 25   | 4   | PP00423         | Pulley                                                   |           |
| 26   | 3   | PP00682         | Eye Bolt - 5/16-18 x 4" Shank Zinc Plated Turned         |           |

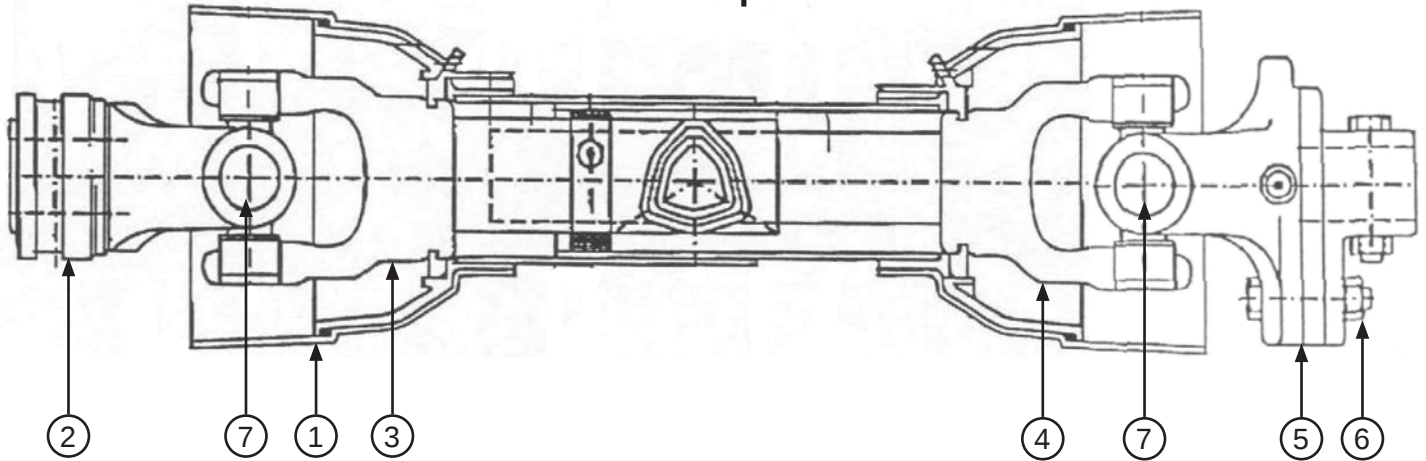
## Flange Paddle Kit - 51406



| ITEM | QTY | PART NUMBER     | DESCRIPTION                                          |
|------|-----|-----------------|------------------------------------------------------|
| 1    | 12  | HB1/2-13X1.5Z5  | Hex Bolt 1/2-13x1 1/2 Gr 5 Zinc Plated Hex Cap Screw |
| 2    | 32  | HB5/8-11X1.75Z5 | Hex Bolt 5/8-11x1 3/4 Gr 5 Zinc Plated Hex Cap Screw |
| 3    | 12  | LN1/2-13TCZ5    | LN1/2-13 Gr.C Zinc Top Lock Nut                      |
| 4    | 32  | LN5/8-11TCZ5    | LN5/8-11 Gr.C Zinc Top Lock Nut                      |
| 5    | 8   | 51407           | Left Flange Paddle                                   |
| 6    | 3   | 51408           | Right Spinner Flange Paddle                          |
| 7    | 8   | 51409           | Right Flange Paddle                                  |
| 8    | 3   | 51410           | Left Spinner Flange Paddle                           |

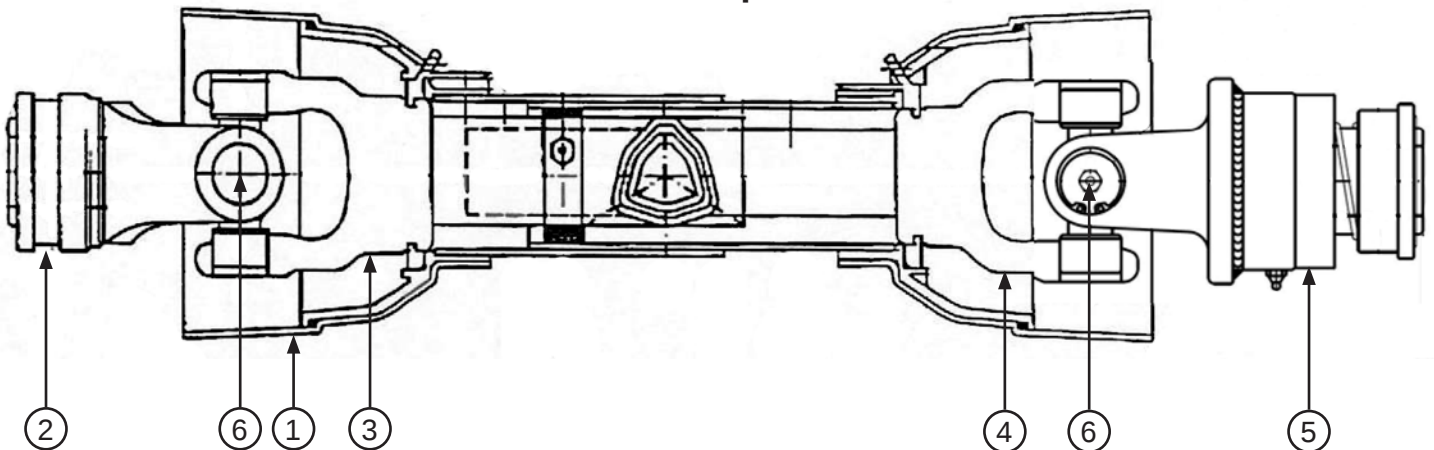
## Section 3 - PTOs

### 51365 - Front PTO - Up to SN 25NLS340



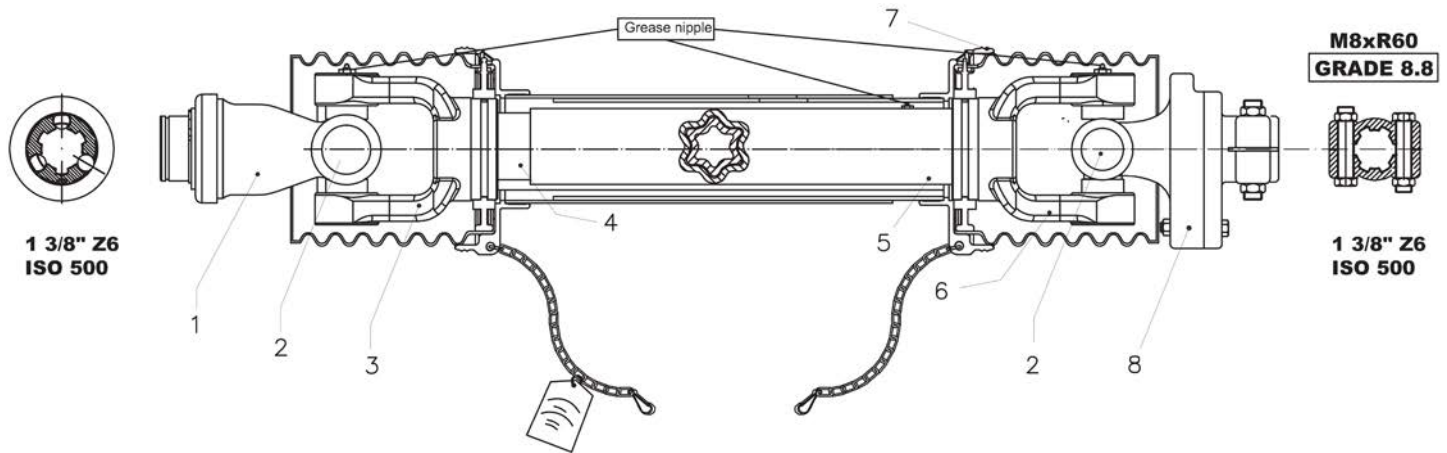
| ITEM | QTY | PART NUMBER    | DESCRIPTION                                   |
|------|-----|----------------|-----------------------------------------------|
| 1    | 1   | PTO142.260.097 | Guard 60,CC141 (51365)                        |
| 2    | 1   | PTO141.026.544 | Complete Collar Yoke                          |
| 3    | 1   | PTO151.016.028 | Outer Yoke                                    |
| 4    | 1   | PTO151.016.029 | Inner Yoke                                    |
| 5    | 1   | PTO143.260.006 | Shear Bolt Yoke 1:3/8-6, S.B. DB.INT.BOLT     |
| 6    | 1   | PTOM10-60      | M10-60, 6.6/6.8 Shearbolt Kit For LS Spreader |
| 7    | 2   | PTO180.016.130 | Cross Set for PTO - 30.2 X 92                 |

### 51366 - Rear PTO - Up to SN 25NLS340



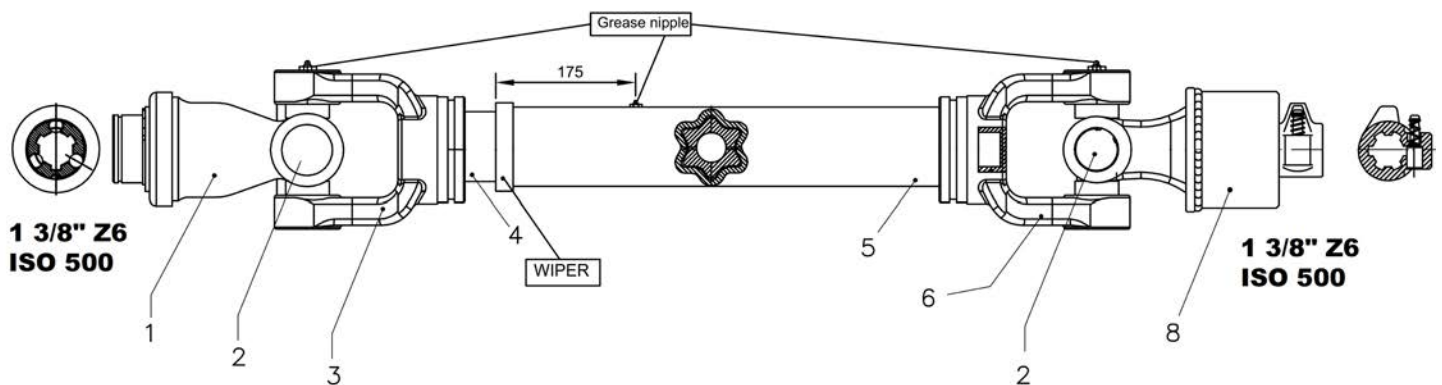
| ITEM | QTY | PART NUMBER      | DESCRIPTION                     |
|------|-----|------------------|---------------------------------|
| 1    | 1   | PTO142.260.006   | Guard 60,CC091 (51366)          |
| 2    | 1   | PTO141.026.544   | Complete Collar Yoke            |
| 3    | 1   | PTO151.016.028   | Outer Yoke                      |
| 4    | 1   | PTO151.016.029   | Inner Yoke                      |
| 5    | 1   | PTO145.265.011.1 | Complete Overrunning Clutch R12 |
| 6    | 2   | PTO180.016.130   | Cross Set for PTO - 30.2 X 92   |

## 51783 - Front PTO - SN 25NLS339, 341 to Current



| ITEM | QTY | PART NUMBER | DESCRIPTION                       |
|------|-----|-------------|-----------------------------------|
| 1    | 1   | 51783-01    | Yoke PTO-60 1:3/8Z6SC             |
| 2    | 1   | 51783-02    | Cross PTOS-60-Cross 30.16x92      |
| 3    | 2   | 51783-03    | Internal Yoke PTOS-60 Male Star   |
| 4    | 1   | 51783-04    | Tube PTOS 60 Male Star            |
| 5    | 1   | 51783-05    | Tube PTOS 60 Female Star          |
| 6    | 1   | 51783-06    | Internal Yoke PTOS-60 Female Star |
| 7    | 1   | 51783-07    | PTO 60 Guard 51783 PTO            |
| 8    | 1   | 51783-08    | Shear Bolt Yoke PTOS-60 1:3/8Z6   |
|      | 4   | 51783-SB    | Shear Bolt Kit M8x60 Grade 8.8    |

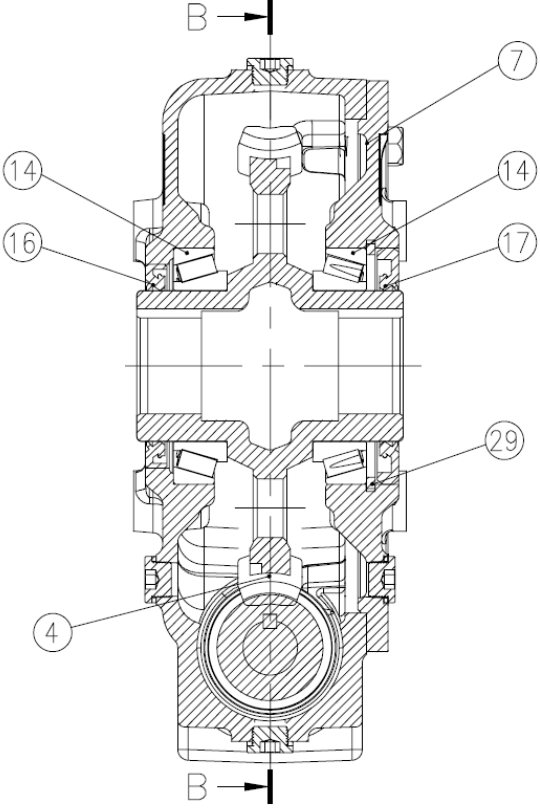
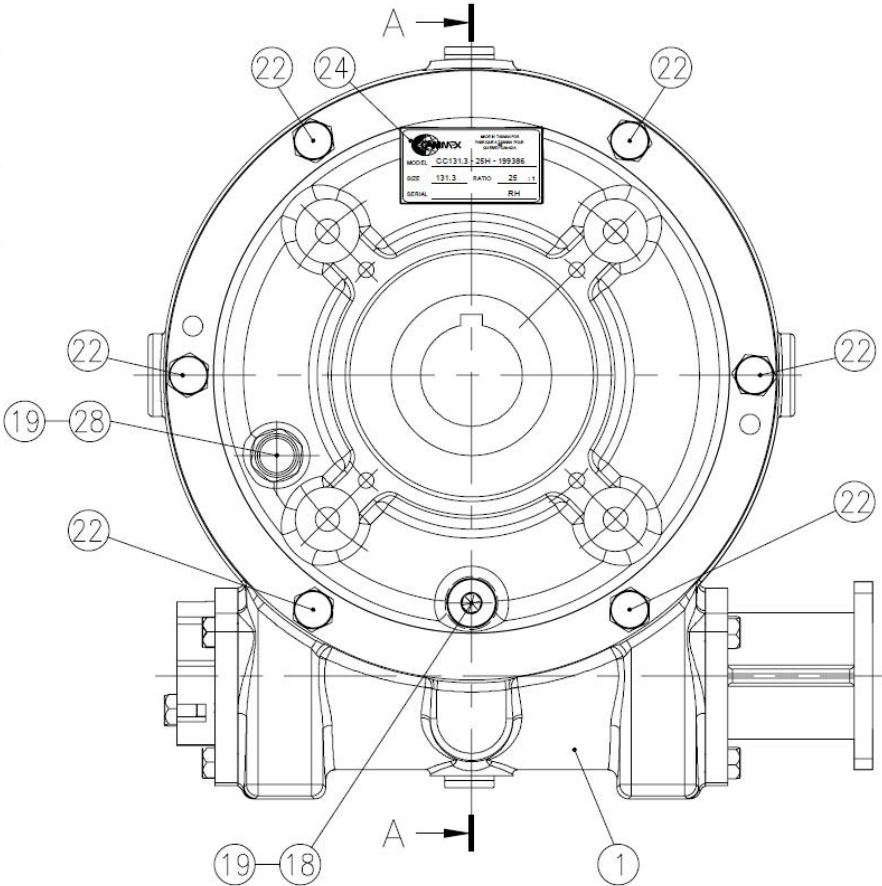
## 51784 - Rear PTO - SN 25NLS339, 341 to Current



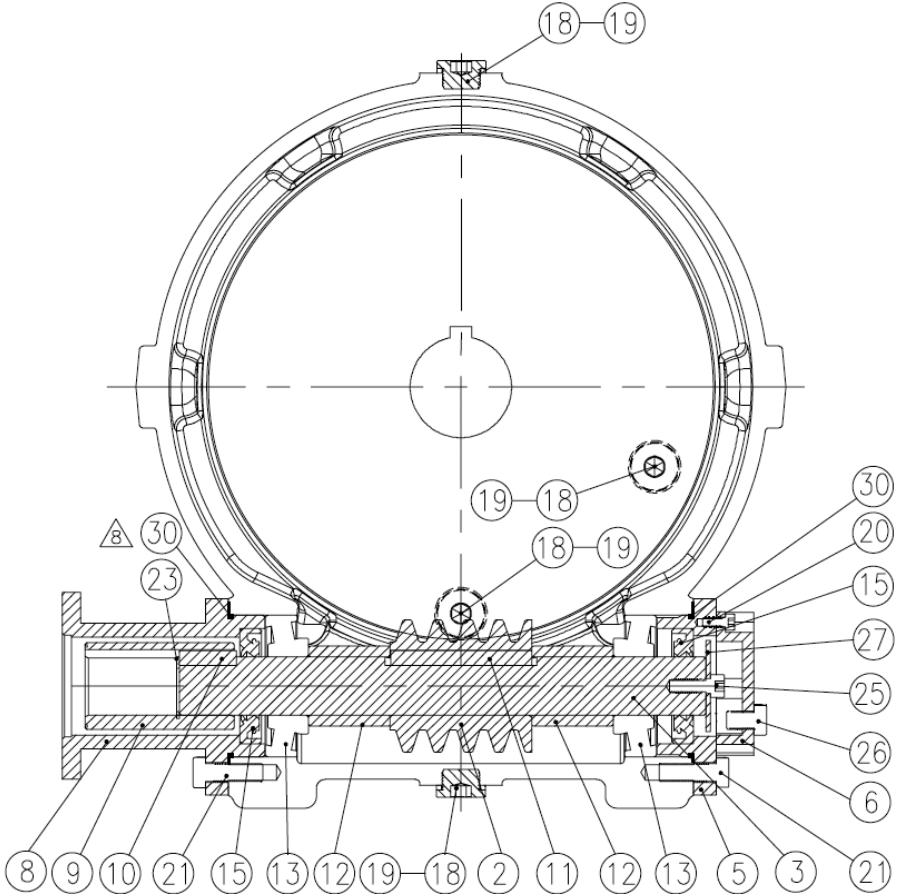
| ITEM | QTY | PART NUMBER | DESCRIPTION                       |
|------|-----|-------------|-----------------------------------|
| 1    | 1   | 51784-01    | Yoke PTO-60 1:3/8Z6SC             |
| 2    | 1   | 51784-02    | Cross PTOS-60-Cross 30.16x92      |
| 3    | 2   | 51784-03    | Internal Yoke PTOS-60 Male Star   |
| 4    | 1   | 51784-04    | Tube PTOS 60 Male Star 51784      |
| 5    | 1   | 51784-05    | Tube PTOS 60 Female Star 51784    |
| 6    | 1   | 51784-06    | Internal Yoke PTOS-60 Female Star |
| 8    | 1   | 51784-08    | Yoke PTOS 60 1:3/8Z6 (R38)P       |

## Section 4 - Gearboxes

50898 - Apron Chain Gearbox



SECTION A-A

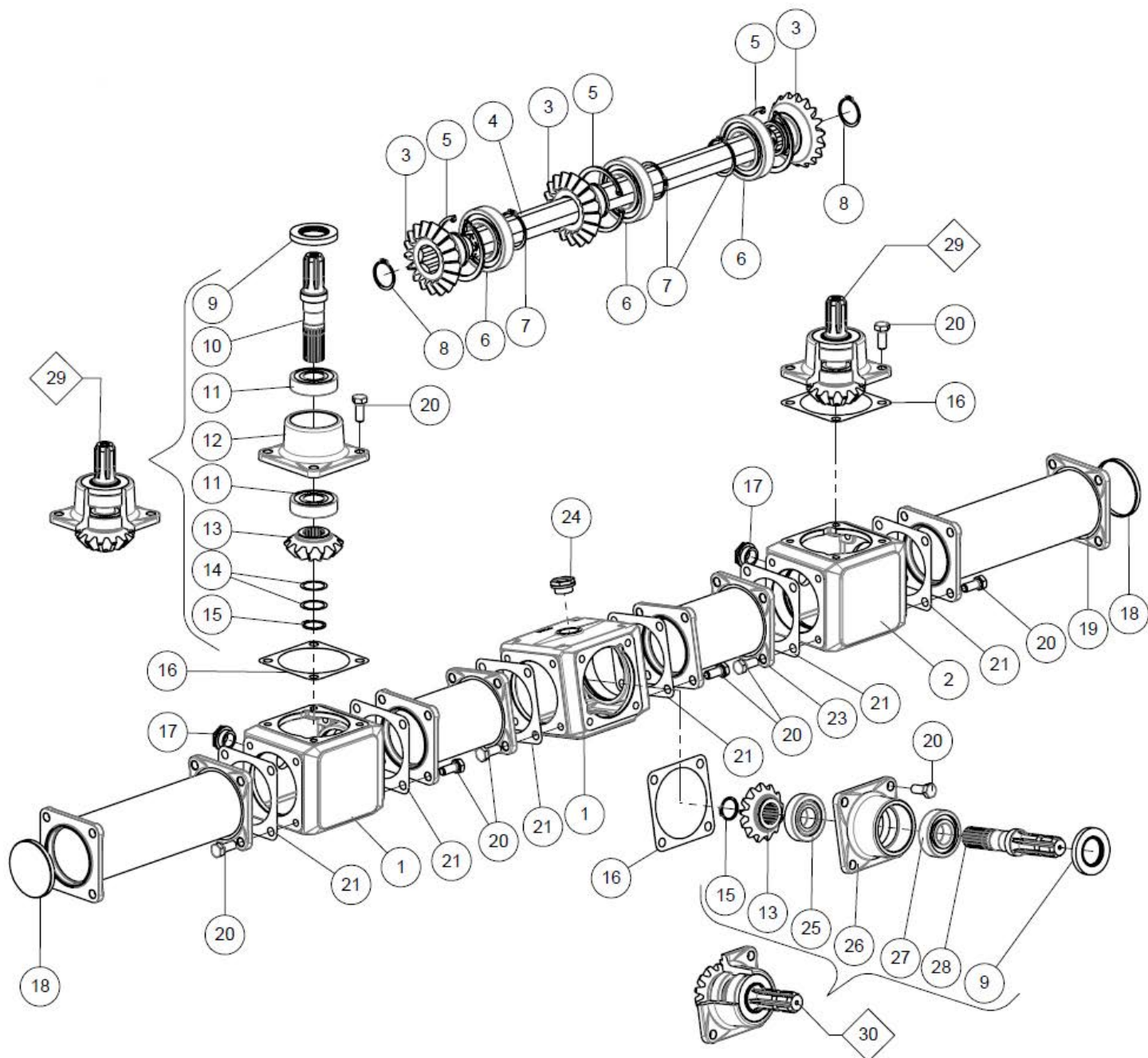


SECTION B-B

## 50898 - Apron Chain Gearbox

| ITEM | QTY | PART NUMBER | DESCRIPTION                  |
|------|-----|-------------|------------------------------|
| 1    | 1   | 50898-01    | Housing                      |
| 2    | 1   | 50898-02    | Hollow Worm                  |
| 3    | 1   | 50898-03    | Input Shaft                  |
| 4    | 1   | 50898-04    | Hollow Worm Wheel            |
| 5    | 1   | 50898-05    | Aluminum Input Cover         |
| 6    | 1   | 50898-06    | Cast Input Cover             |
| 7    | 1   | 50898-07    | Output Cover                 |
| 8    | 1   | 50898-08    | 4 Bolt Flange                |
| 9    | 1   | 50898-09    | Sleeve Coupling              |
| 10   | 1   | 50898-10    | 1/4 x 1/4 x 25mm Key         |
| 11   | 1   | 50898-11    | 1/4 x 1/4 x 61.9mm Key       |
| 12   | 2   | 50898-12    | Spacer                       |
| 13   | 2   | 50898-13    | Input Bearing                |
| 14   | 2   | 50898-14    | Output Bearing               |
| 15   | 2   | 50898-15    | 1" x 2" x 3/8" Oil Seal      |
| 16   | 1   | 50898-16    | 70mm x 95mm x 10mm Oil Seal  |
| 17   | 1   | 50898-17    | 70mm x 110mm x 10mm Oil Seal |
| 18   | 5   | 50898-18    | 3/8-19 BSPP Plug             |
| 19   | 6   | 50898-19    | 14.96x23.8x2t Washer         |
| 20   | 3   | 50898-20    | M4x10L Screw Bolt            |
| 21   | 6   | 50898-21    | M8x25L Screw Bolt            |
| 22   | 6   | 50898-22    | M10x25L Screw Bolt           |
| 23   | 1   | 50898-23    | R25 Snap Ring                |
| 24   | 1   | 50898-24    | Name Plate                   |
| 25   | 1   | 50898-25    | M6x14L Screw Bolt            |
| 26   | 1   | 50898-26    | M8xP1x16" Screw Bolt         |
| 27   | 1   | 50898-27    | Stainless Sensor Disc        |
| 28   | 1   | 50898-28    | 3/8-19 BSPP Sight Glass      |
| 29   | 1   | 50898-29    | R110 Snap Ring               |
| 30   | 1   | 50898-30    | 56.87x1.78 O-Ring            |

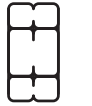
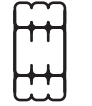
## 50899 - Beater Gearbox



## 50899 - Beater Gearbox

| ITEM | QTY | PART NUMBER | DESCRIPTION                     |
|------|-----|-------------|---------------------------------|
| 1    | 2   | 50899-7711  | Housing                         |
| 2    | 1   | 50899-7712  | Housing                         |
| 3    | 3   | 50899-7717  | Gear Z=18                       |
| 4    | 1   | 50899-10731 | Shaft L=729                     |
| 5    | 3   | 50899-7482  | Circlip I 110                   |
| 6    | 3   | 50899-7748  | Bearing 6212                    |
| 7    | 3   | 50899-3531  | Circlip E 60                    |
| 8    | 2   | 50899-3427  | Circlip E 45                    |
| 9    | 3   | 50899-3442  | Oil Seal 45/80/10-DL            |
| 10   | 2   | 50899-7725  | Shaft L=729                     |
| 11   | 4   | 50899-4876  | Bearing 6307-2RS                |
| 12   | 2   | 50899-7714  | Calotte                         |
| 13   | 3   | 50899-7718  | Bevel Pinion Z=13               |
| 14   | 4   | 50899-9354  | Spacer 45x35.1x0.2              |
| 15   | 3   | 50899-3425  | Circlip E 35                    |
| 16   | 3   | 50899-7735  | Gasket                          |
| 17   | 2   | 50899-1831  | Oil Level Indicator 1" Dia. Gas |
| 18   | 2   | 50899-8930  | Plug 100 Dia.                   |
| 19   | 2   | 50899-10729 | Spacer L=367                    |
| 20   | 36  | 50899-3549  | Screw, Hex-HD M14x35            |
| 21   | 6   | 50899-7736  | Gasket                          |
| 22   | 1   | 50899-10726 | Spacer L=189                    |
| 23   | 1   | 50899-10728 | Spacer L=189                    |
| 24   | 1   | 50899-9175  | Oil Breather Plug 1" Dia. Gas   |
| 25   | 1   | 50899-8556  | Bearing 30307                   |
| 26   | 1   | 50899-8989  | Hub                             |
| 27   | 1   | 50899-3339  | Bearing 6307                    |
| 28   | 1   | 50899-9484  | Input Shaft                     |
| 29   | 2   | 50899-7846  | Complete Calotte                |
| 30   | 1   | 50899-9705  | Complete Hub                    |

# Torque Value Chart - Imperial

|                             |         |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------|---------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| SAE Grade and Head Markings | NO MARK | 1 or 2 <sup>b</sup>                                                               | 5                                                                                 | 5.1                                                                                 | 5.2                                                                                 | 8                                                                                   | 8.2                                                                                 |
|                             |         |  |  |   |  |  |  |
| SAE Grade and Nut Markings  | NO MARK | 2                                                                                 | 5                                                                                 |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |
|                             |         |  |  |  |                                                                                     |  |  |

| Size  | Grade 1                 |       |                  |       | Grade 2 <sup>b</sup>    |       |                  |       | Grade 5, 5.1, or 5.2    |       |                  |       | Grade 8 or 8.2          |       |                  |       |
|-------|-------------------------|-------|------------------|-------|-------------------------|-------|------------------|-------|-------------------------|-------|------------------|-------|-------------------------|-------|------------------|-------|
|       | Lubricated <sup>a</sup> |       | Dry <sup>a</sup> |       | Lubricated <sup>a</sup> |       | Dry <sup>a</sup> |       | Lubricated <sup>a</sup> |       | Dry <sup>a</sup> |       | Lubricated <sup>a</sup> |       | Dry <sup>a</sup> |       |
|       | N-m                     | lb-ft | N-m              | lb-ft | N-m                     | lb-ft | N-m              | lb-ft | N-m                     | lb-ft | N-m              | lb-ft | N-m                     | lb-ft | N-m              | lb-ft |
| 1/4   | 3.7                     | 2.8   | 4.7              | 3.5   | 6                       | 4.5   | 7.5              | 5.5   | 9.5                     | 7     | 12               | 9     | 13.5                    | 10    | 17               | 12.5  |
| 5/16  | 7.7                     | 5.5   | 10               | 7     | 12                      | 9     | 15               | 11    | 20                      | 15    | 25               | 18    | 28                      | 21    | 35               | 26    |
| 3/8   | 14                      | 10    | 17               | 13    | 22                      | 16    | 27               | 20    | 35                      | 26    | 44               | 33    | 50                      | 36    | 63               | 46    |
| 7/16  | 22                      | 16    | 28               | 20    | 35                      | 26    | 44               | 32    | 55                      | 41    | 70               | 52    | 80                      | 58    | 100              | 75    |
| 1/2   | 33                      | 25    | 42               | 31    | 53                      | 39    | 67               | 50    | 85                      | 63    | 110              | 80    | 120                     | 90    | 150              | 115   |
| 9/16  | 48                      | 36    | 60               | 45    | 75                      | 56    | 95               | 70    | 125                     | 90    | 155              | 115   | 175                     | 130   | 225              | 160   |
| 5/8   | 67                      | 50    | 85               | 62    | 105                     | 78    | 135              | 100   | 170                     | 125   | 215              | 160   | 240                     | 175   | 300              | 225   |
| 3/4   | 120                     | 87    | 150              | 110   | 190                     | 140   | 240              | 175   | 300                     | 225   | 375              | 280   | 425                     | 310   | 550              | 400   |
| 7/8   | 190                     | 140   | 240              | 175   | 190                     | 140   | 240              | 175   | 490                     | 360   | 625              | 450   | 700                     | 500   | 875              | 650   |
| 1     | 290                     | 210   | 360              | 270   | 290                     | 210   | 360              | 270   | 725                     | 540   | 925              | 675   | 1050                    | 750   | 1300             | 975   |
| 1-1/8 | 400                     | 300   | 510              | 375   | 400                     | 300   | 510              | 375   | 900                     | 675   | 1150             | 850   | 1450                    | 1075  | 1850             | 1350  |
| 1-1/4 | 570                     | 425   | 725              | 530   | 570                     | 425   | 725              | 530   | 1300                    | 950   | 1650             | 1200  | 2050                    | 1500  | 2600             | 1950  |
| 1-3/8 | 750                     | 550   | 950              | 700   | 750                     | 550   | 950              | 700   | 1700                    | 1250  | 2150             | 1550  | 2700                    | 2000  | 3400             | 2550  |
| 1-1/2 | 1000                    | 725   | 1250             | 925   | 990                     | 725   | 1250             | 930   | 2250                    | 1650  | 2850             | 2100  | 3600                    | 2650  | 4550             | 3350  |

DO NOT use these values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only. Check tightness of fasteners periodically.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

Fasteners should be replaced with the same or higher grade. If higher grade fasteners are used, these should only be tightened to the strength of the original.

Make sure fasteners threads are clean and that you properly start thread engagement. This will prevent

them from failing when tightening.

Tighten plastic insert or crimped steel-type lock nuts to approximately 50 percent of the dry torque shown in the chart, applied to the nut, not to the bolt head. Tighten toothed or serrated-type lock nuts to the full torque value.

<sup>a</sup> "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings. "Dry" means plain or zinc plated without any lubrication.

<sup>b</sup> Grade 2 applies for hex cap screws (not hex bolts) up to 152 mm (6-in.) long. Grade 1 applies for hex cap screws over 152 mm (6-in.) long, and for all other types of bolts and screws of any length.

# Torque Value Chart - Metric

|                                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Property Class and Head Markings | 4.8                                                                               |                                                                                   | 8.8                                                                               |                                                                                   | 9.8                                                                               |                                                                                   | 10.9                                                                                |                                                                                     | 12.9                                                                                |                                                                                     |
|                                  |  |  |  |  |  |  |  |  |  |  |
| Property Class and Nut Markings  | 5                                                                                 |                                                                                   | 10                                                                                |                                                                                   | 10                                                                                |                                                                                   | 10                                                                                  |                                                                                     | 12                                                                                  |                                                                                     |
|                                  |  |  |  |  |  |  |   |  |  |  |

| Size | Class 4.8               |       |                  |       | Class 8.8 or 9.8        |       |                  |       | Class 10.9              |       |                  |       | Class 12.9              |       |                  |       |
|------|-------------------------|-------|------------------|-------|-------------------------|-------|------------------|-------|-------------------------|-------|------------------|-------|-------------------------|-------|------------------|-------|
|      | Lubricated <sup>a</sup> |       | Dry <sup>a</sup> |       | Lubricated <sup>a</sup> |       | Dry <sup>a</sup> |       | Lubricated <sup>a</sup> |       | Dry <sup>a</sup> |       | Lubricated <sup>a</sup> |       | Dry <sup>a</sup> |       |
|      | N-m                     | lb-ft | N-m              | lb-ft | N-m                     | lb-ft | N-m              | lb-ft | N-m                     | lb-ft | N-m              | lb-ft | N-m                     | lb-ft | N-m              | lb-ft |
| M6   | 4.8                     | 3.5   | 6                | 4.5   | 9                       | 6.5   | 11               | 8.5   | 13                      | 9.5   | 17               | 12    | 15                      | 11.5  | 19               | 14.5  |
| M8   | 12                      | 8.5   | 15               | 11    | 22                      | 16    | 28               | 20    | 32                      | 24    | 40               | 30    | 37                      | 28    | 47               | 35    |
| M10  | 23                      | 17    | 29               | 21    | 43                      | 32    | 55               | 40    | 63                      | 47    | 80               | 60    | 75                      | 55    | 95               | 70    |
| M12  | 40                      | 29    | 50               | 37    | 75                      | 55    | 95               | 70    | 110                     | 80    | 140              | 105   | 130                     | 95    | 165              | 120   |
| M14  | 63                      | 47    | 80               | 60    | 120                     | 88    | 150              | 110   | 175                     | 130   | 225              | 165   | 205                     | 150   | 260              | 190   |
| M16  | 100                     | 73    | 125              | 92    | 190                     | 140   | 240              | 175   | 275                     | 200   | 350              | 255   | 320                     | 240   | 400              | 300   |
| M18  | 135                     | 100   | 175              | 125   | 260                     | 195   | 330              | 250   | 375                     | 275   | 475              | 350   | 440                     | 325   | 560              | 410   |
| M20  | 190                     | 140   | 240              | 180   | 375                     | 275   | 475              | 350   | 530                     | 400   | 675              | 500   | 625                     | 460   | 800              | 580   |
| M22  | 260                     | 190   | 330              | 250   | 510                     | 375   | 650              | 475   | 725                     | 540   | 925              | 675   | 850                     | 625   | 1075             | 800   |
| M24  | 330                     | 250   | 425              | 310   | 650                     | 475   | 825              | 600   | 925                     | 675   | 1150             | 850   | 1075                    | 800   | 1350             | 1000  |
| M27  | 490                     | 360   | 625              | 450   | 950                     | 700   | 1200             | 875   | 1350                    | 1000  | 1700             | 1250  | 1600                    | 1150  | 2000             | 1500  |
| M30  | 675                     | 490   | 850              | 625   | 1300                    | 950   | 1650             | 1200  | 1850                    | 1350  | 2300             | 1700  | 2150                    | 1600  | 2700             | 2000  |
| M33  | 900                     | 675   | 1150             | 850   | 1750                    | 1300  | 2200             | 1650  | 2500                    | 1850  | 3150             | 2350  | 2900                    | 2150  | 3700             | 2750  |
| M36  | 1150                    | 850   | 1450             | 1075  | 2250                    | 1650  | 2850             | 2100  | 3200                    | 2350  | 4050             | 3000  | 3750                    | 2750  | 4750             | 3500  |

DO NOT use these values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only. Check tightness of fasteners periodically.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical property class.

Fasteners should be replaced with the same or higher property class. If higher property class fasteners are used, these should only be tightened to the strength of the original.

Make sure fasteners threads are clean and that you

properly start thread engagement. This will prevent them from failing when tightening.

Tighten plastic insert or crimped steel-type lock nuts to approximately 50 percent of the dry torque shown in the chart, applied to the nut, not to the bolt head. Tighten toothed or serrated-type lock nuts to the full torque value.

a "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings. "Dry" means plain or zinc plated without any lubrication.

# Index

|                                                           |       |
|-----------------------------------------------------------|-------|
| 43622 - Mechanical Light Kit . . . . .                    | .2-2  |
| 50898 - Apron Chain Gearbox . . . . .                     | .4-2  |
| 50899 - Beater Gearbox . . . . .                          | .4-4  |
| 51365 - Front PTO - Up to SN 25NLS340 . . . . .           | .3-1  |
| 51366 - Rear PTO - Up to SN 25NLS340 . . . . .            | .3-1  |
| 51783 - Front PTO - SN 25NLS339, 341 to Current . . . . . | .3-2  |
| 51784 - Rear PTO - SN 25NLS339, 341 to Current . . . . .  | .3-2  |
| Apron Runners . . . . .                                   | 1-16  |
| Beaters . . . . .                                         | 1-12  |
| DE42860 - Nitro Safety Decal Kit . . . . .                | . VI  |
| DE51368 - 440LS Model Decal Kit . . . . .                 | . V   |
| Driveline . . . . .                                       | .1-6  |
| Endgate. . . . .                                          | 1-10  |
| Endgate Indicator. . . . .                                | .2-6  |
| Flange Paddle Kit - 51406 . . . . .                       | .2-8  |
| Floor & Side Boards . . . . .                             | .1-5  |
| Front Apron Drive. . . . .                                | .1-4  |
| Front Shields . . . . .                                   | .1-2  |
| Hydraulics - Apron Drive Circuits . . . . .               | 1-20  |
| Hydraulics - Endgate Cylinders . . . . .                  | 1-18  |
| ISO Safety Decals . . . . .                               | . VII |
| Light Kit Wiring Harness . . . . .                        | .2-4  |
| Manuals . . . . .                                         | . II  |
| Nitro Apron Chain Warranty . . . . .                      | . II  |
| Parts Manual . . . . .                                    | . II  |
| Rear Apron Drive . . . . .                                | .1-8  |
| Safety Decals . . . . .                                   | . V   |
| Section 1 - Parts Breakdowns & Lists . . . . .            | .1-1  |
| Section 2 - Options . . . . .                             | .2-1  |
| Section 3 - PTOs . . . . .                                | .3-1  |
| Section 4 - Gearboxes . . . . .                           | .4-1  |
| Serial Number . . . . .                                   | . II  |
| Tandem Axle . . . . .                                     | 1-14  |
| Tongue . . . . .                                          | 1-22  |
| Torque Value Chart - Imperial . . . . .                   | .VIII |
| Torque Value Chart - Metric . . . . .                     | . IX  |
| Warranty and Limitation of Liability . . . . .            | . II  |



Scan with smartphone to  
download latest manual.

**TUBE•LINE™**