

# TUBE•LINE™

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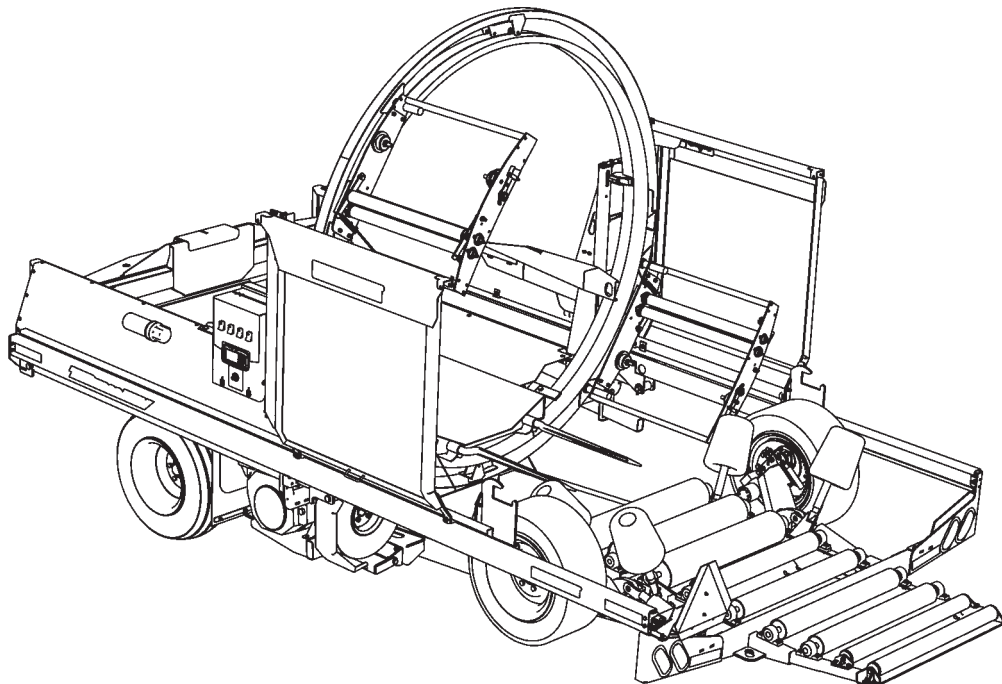
# Parts Manual

Keep this manual with the machine at all times.

## TLR5000ECV

Balewrapper

# TLR5000ECV



# Parts Manual

Thank you for choosing the Tubeline TLR5000ECV Bale Wrapper. We know that it will give you many years of productive service. This machine is designed to wrap a continuous line of round bales in a film of plastic.

## Parts Manual Usage

This parts manual is used to order replacement parts by means of part breakdowns and their corresponding part lists. Each page contains a different range of integrated parts. Each illustration visually represents machine components. The part lists contain information needed to order replacement parts. Part lists include the following columns:

**ITEM** - Number matching parts breakdown balloons.

**QTY** - Quantity of components included in this breakdown, not entire machine.

**PART NUMBER** - The number to be used when placing an order.

**DESCRIPTION** - Term used to confirm its matching part number.

**NOTE** - Column may be added to part lists when a serial break or additional information is required.

Remember to always have your machine model and serial number on hand when ordering parts.

## Part Orders

Part orders are taken by your local Tubeline dealer and fulfilled through a regional distributor. For quick service please record your dealer name and contact information in the [Serial Number](#) section.

## 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](http://www.tubeline.ca/support). 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 on the front right corner of the frame. (See below) 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: \_\_\_\_\_ TLR5000ECV \_\_\_\_\_

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

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

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

Dealer Contact: \_\_\_\_\_

Engine Model No: \_\_\_\_\_

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





### **Inline Wrapper 3 Year Limited Warranty Statement** *(Excludes Individual Wrapper)*

All Equipment is sold subject to mutual agreement that it is warranted by Tube-Line Manufacturing Ltd (hereinafter the company) to be free from defects in material and workmanship. The company's liability shall be limited exclusively to the original owner to replace or repair without charge, at its factory or elsewhere, at its discretion, any defects in material or workmanship which become apparent in the first year from the date on which the equipment was purchased. In the second and third year the company will supply at no charge replacement of defective parts only. Installation and freight will be at the expense of the owner.

Components supplied by third parties and not manufactured by the company will carry such warranty as extended by such parties, such as but not limited to, tires, batteries, electrical components, hydraulics and engines.

The buyer by the acceptance of the equipment will assume all liability for any damages which may result from accident, abuse or misuse by his employees or others. Any equipment that has been altered or modified without prior written authorization by the company will render the warranty null and void.

No employee or representative of the company is authorized to make changes to this warranty or grant additional warranty terms unless authorized in writing by management of the company.

The company shall not be liable for special, indirect or consequential damages of any kind including but not limited to, loss of revenue, rental replacement costs or other losses.

Normal wear and tear from normal use of the equipment is not warranted. The end user is expected to maintain and service the equipment in accordance with accepted practices. Failure to do so will void the terms of this warranty.

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

**NOTE:** Newest manual version can be found at [www.tubeline.ca/support](http://www.tubeline.ca/support)

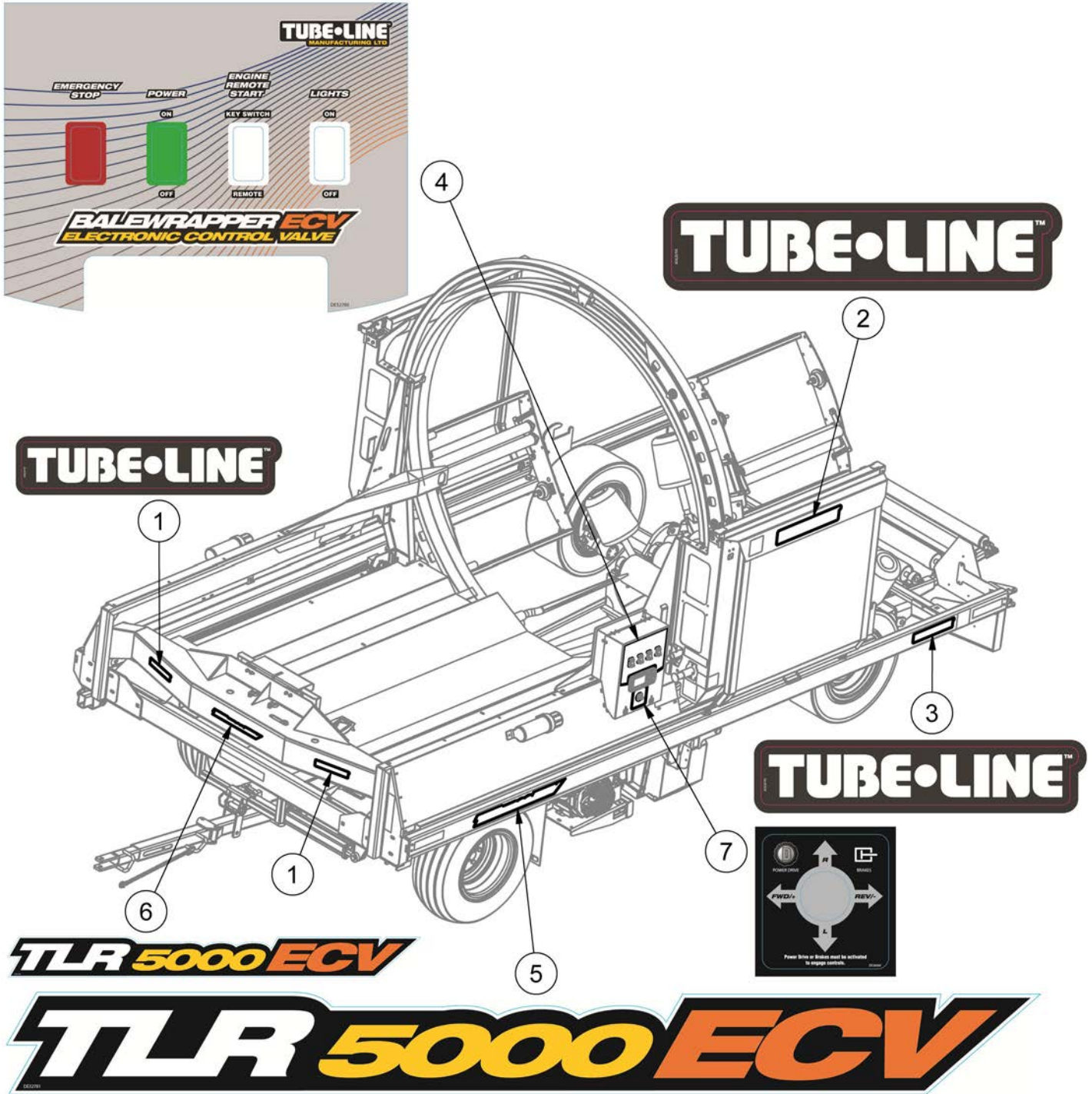
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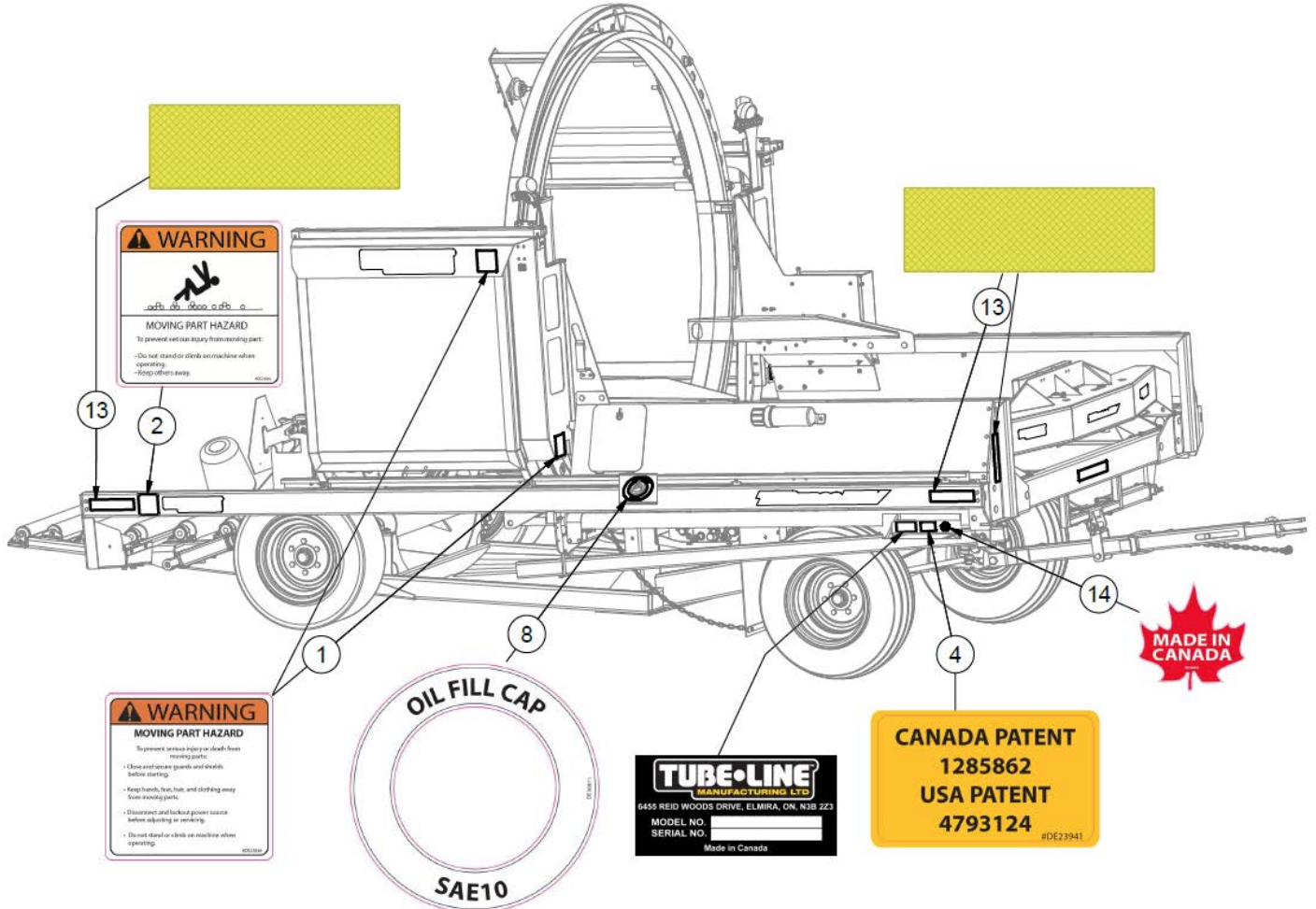
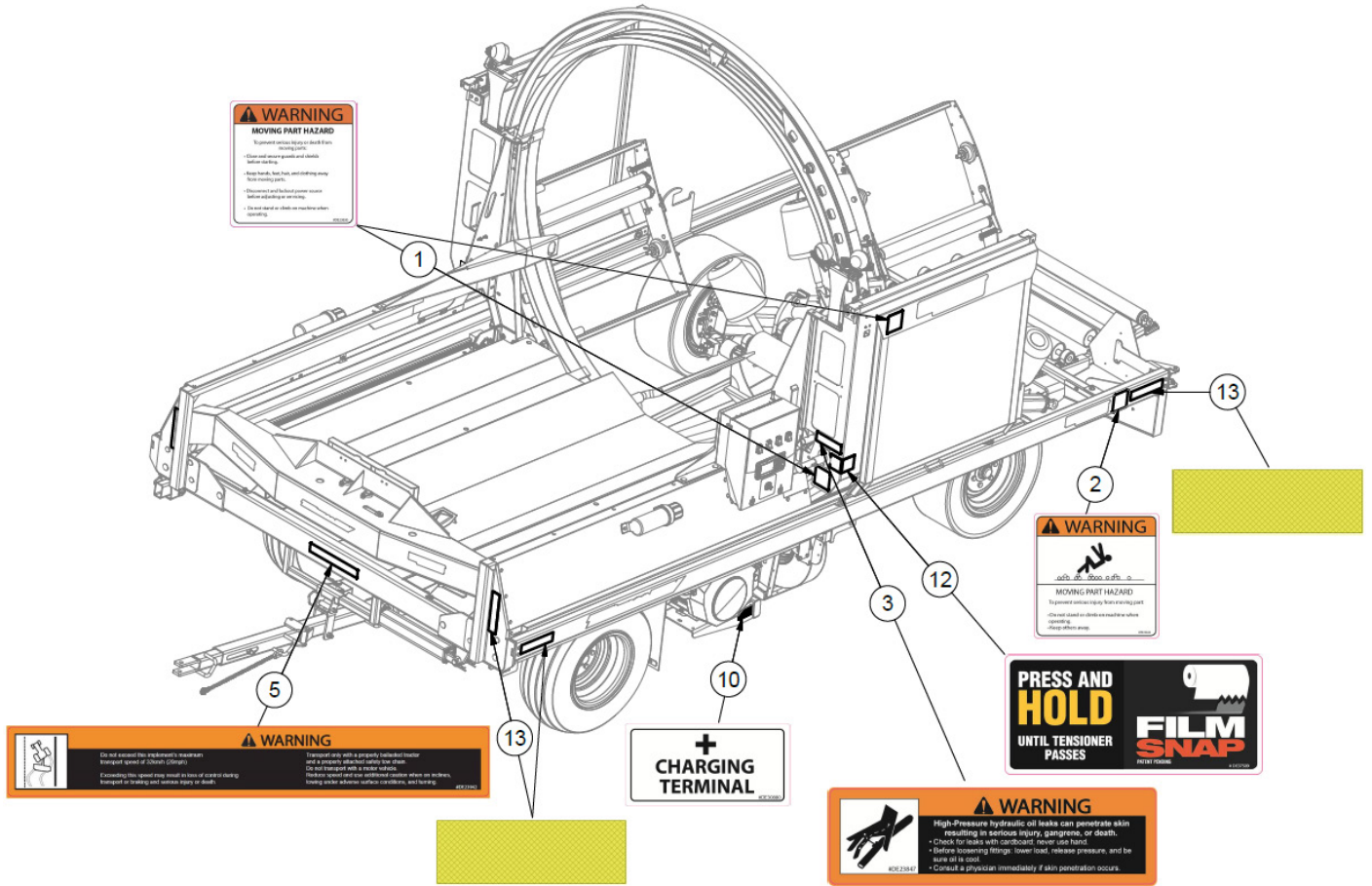
# Section 1 : Decals

## DE36090 - Model Decal Kit

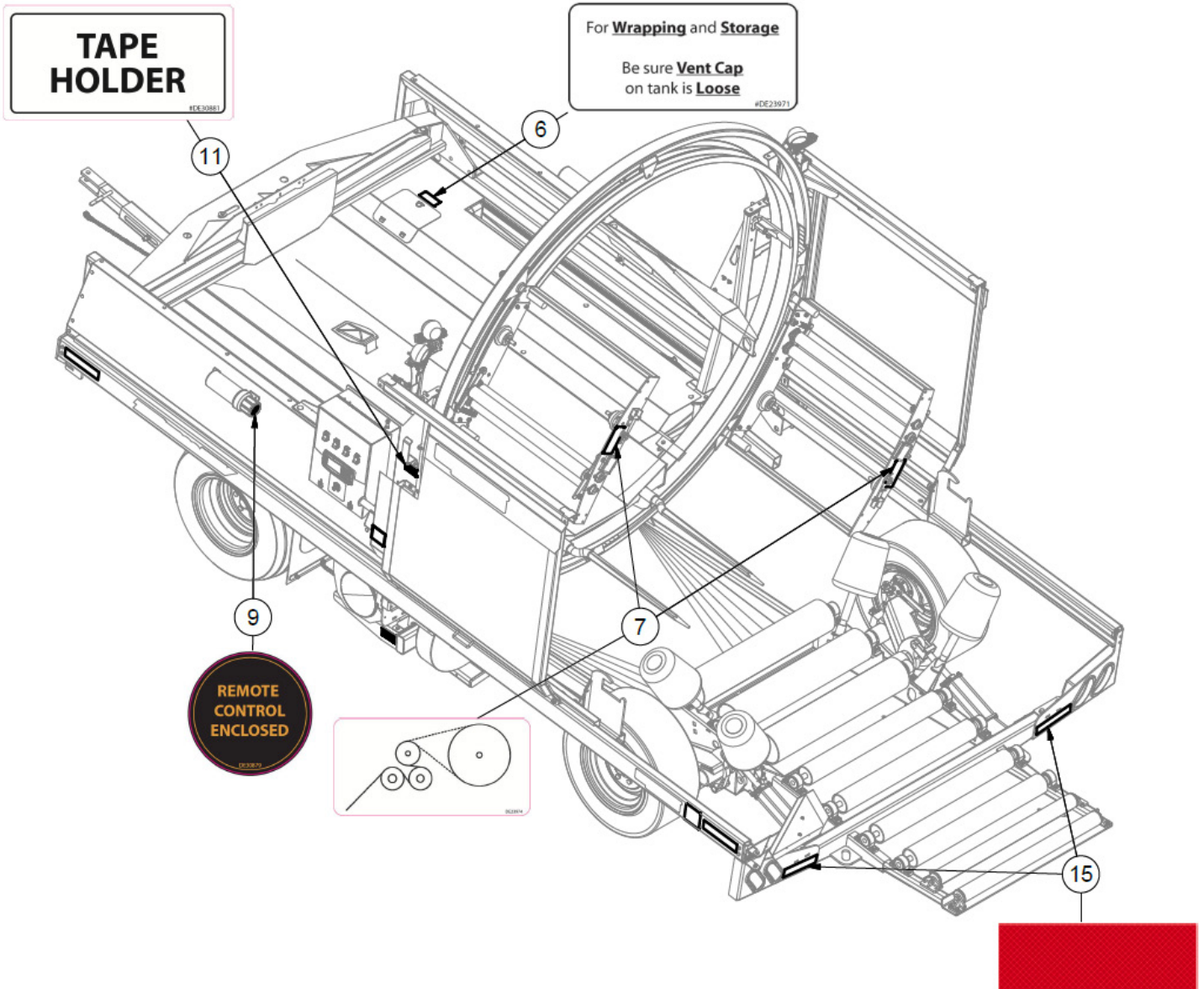


| ITEM | QTY | PART NUMBER | DESCRIPTION                         |
|------|-----|-------------|-------------------------------------|
| 1    | 2   | DE28705     | Tubeline Decal 2.0" x 8.3 "         |
| 2    | 2   | DE28709     | Tubeline Decal 4.50 x 20.00"        |
| 3    | 2   | DE28721     | Tubeline Decal 3" x 12.50"          |
| 4    | 1   | DE32780     | ECV Decal Control Box Face          |
| 5    | 2   | DE32781     | TLR5000ECV Model Decal [2.8" x 28"] |
| 6    | 1   | DE36084     | TLR5000ECV Model Number 1.5"        |
| 7    | 1   | DE36089     | ECV Power Drive Decal 4.25" x 4.5"  |

# DE39654 - Safety Decal Kit



## DE39654 - Safety Decal Kit



| ITEM | QTY | PART NUMBER | DESCRIPTION                              |
|------|-----|-------------|--|
| 1    | 4   | DE23836     | Moving Part Hazard Text Decal            |
| 2    | 2   | DE23846     | Warning Moving Part Hazard (Rollers)     |
| 3    | 1   | DE23847     | High Pressure Fluid Warning Decal        |
| 4    | 1   | DE23941     | Canada/USA Patent Decal                  |
| 5    | 1   | DE23942     | Warning - Max. Transport Speed Decal     |
| 6    | 1   | DE23971     | Wrapping and Storage Decal               |
| 7    | 2   | DE23974     | Wrap Instruction Decal                   |
| 8    | 1   | DE30871     | Decal for Hydraulic Oil Fill on Wrappers |
| 9    | 1   | DE30879     | Decal - Remote Control Enclosed          |
| 10   | 1   | DE30880     | Decal - Charging Terminal                |
| 11   | 1   | DE30881     | Decal - Tape Holder                      |
| 12   | 1   | DE37509     | Decal for Film Snap                      |
| 13   | 6   | DEAMBER     | Amber Reflective Strip Decal             |
| 14   | 1   | DECANADA    | Decal Made In Canada                     |
| 15   | 2   | DERED       | Red Reflective Strip Decal               |



# Safety Decal Illustrations

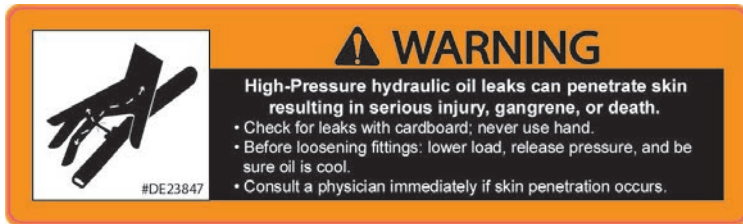
Item 1: DE23836



Item 2: DE23846



Item 4: DE23941

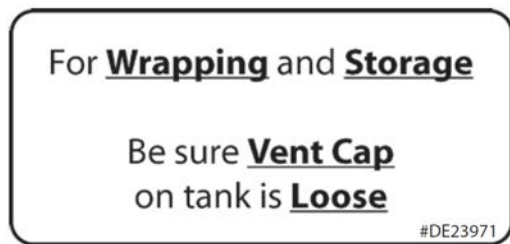


Item 3: DE23847

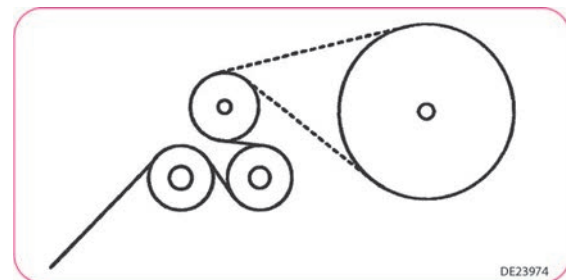
Item 5: DE23942



Item 6: DE23971



Item 7: DE23974



Item 9: DE30879



## Safety Decal Illustrations

Item 10: DE30880



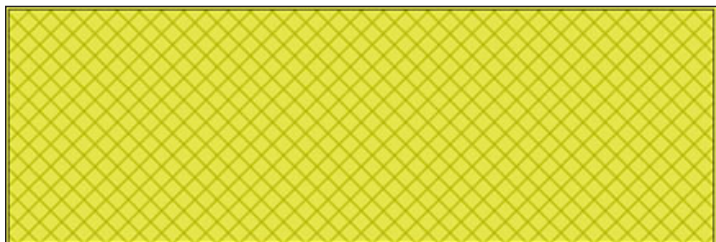
Item 11: DE30881



Item 12: DE37509



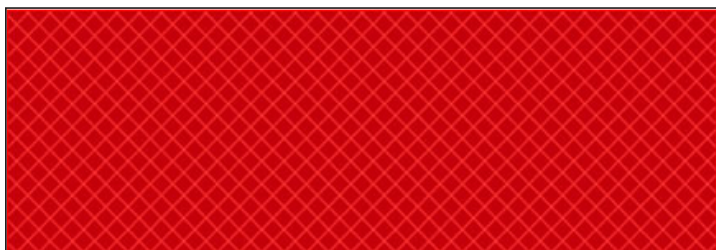
Item 13: DEAMBER



Item 14: DECANADA



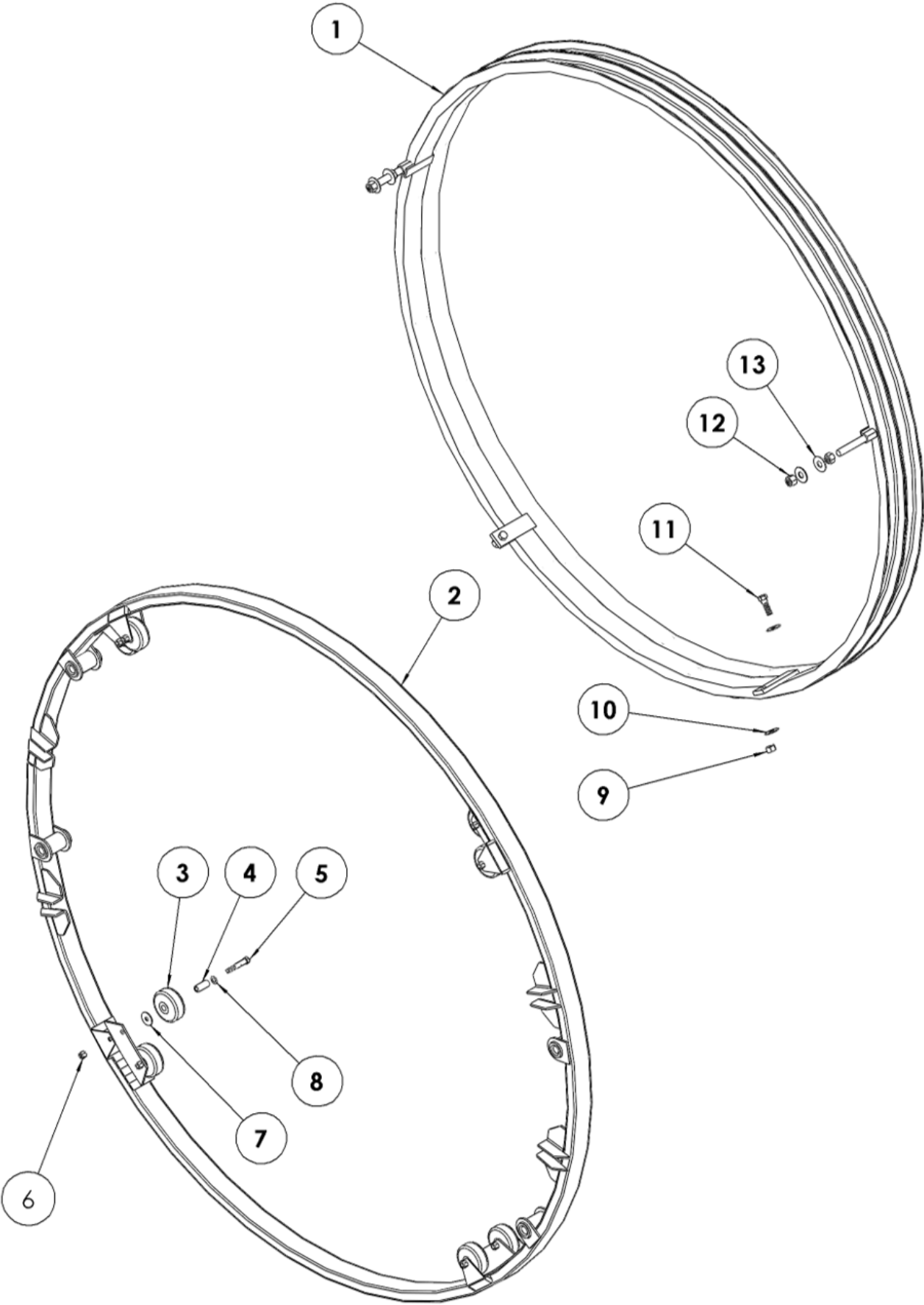
Item 15: DERED



- Keep safety signs clean and legible at all times.
- Replace safety signs that are missing or illegible.
- Decals are available through your dealer.

# Section 2: Parts Lists

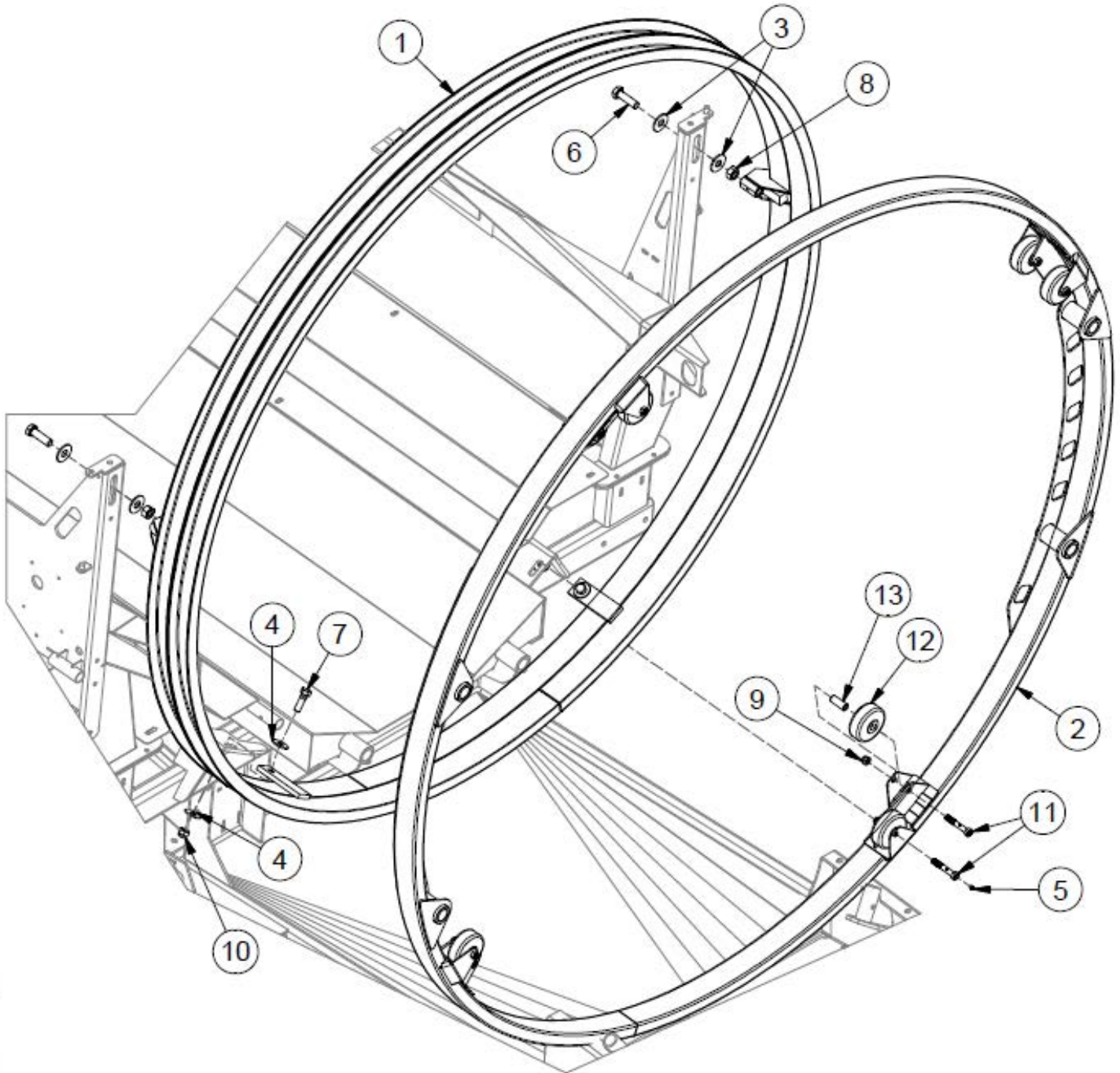
Hoop - Up to SN 16R192



## Hoop - Up to SN 16R192

| ITEM | QTY | PARTNUMBER      | DESCRIPTION  |
|------|-----|-----------------|--|
| 1    | 1   | TL550-100-002   | Inner Hoop   |
| 2    | 1   | TL550-301-001   | Outer Hoop   |
| 2A   |     | TL5X2-500-101   | Complete Outer Hoop (Ref # 2-8)                        |
| 3    | 8   | TL500-200-014   | 4" Hoop Wheel  |
| 3A   |     | TL5X2-500-102   | Complete 4" Hoop Wheel                                 |
| 4    | 8   | TL550-200-016   | Spanner  |
| 5    | 8   | TL500-100-015   | Hoop Wheel Axle Bolt                                   |
| 6    | 8   | LN 1/2          | Center Locknuts  |
| 7    | 8   | FW 1/2X2.0      | Fender Washer 1/2 x 2.0                                |
| 8    | 8   | FWSAE 1/2       | Flatwasher, 1/2" Zinc Plated SAE                       |
| 9    | 2   | LN 5/8 N        | Locknut - 5/8-11 Zinc Plated Nylon Insert Lock Nut     |
| 10   | 4   | FW 5/8          | Flatwasher - 5/8" Zinc Plated USS (516)                |
| 11   | 2   | HB 5/8-11X2.0 B | Hex Bolt 5/8-11 x 2 Grade 5 Plain Finish Hex Cap Screw |
| 12   | 4   | LN 3/4 N        | Locknuts - 3/4-10 Zinc Plated Nylon Insert             |
| 13   | 4   | FW 3/4          | Flatwasher Plated - 3/4" Zinc Plated USS (400)         |

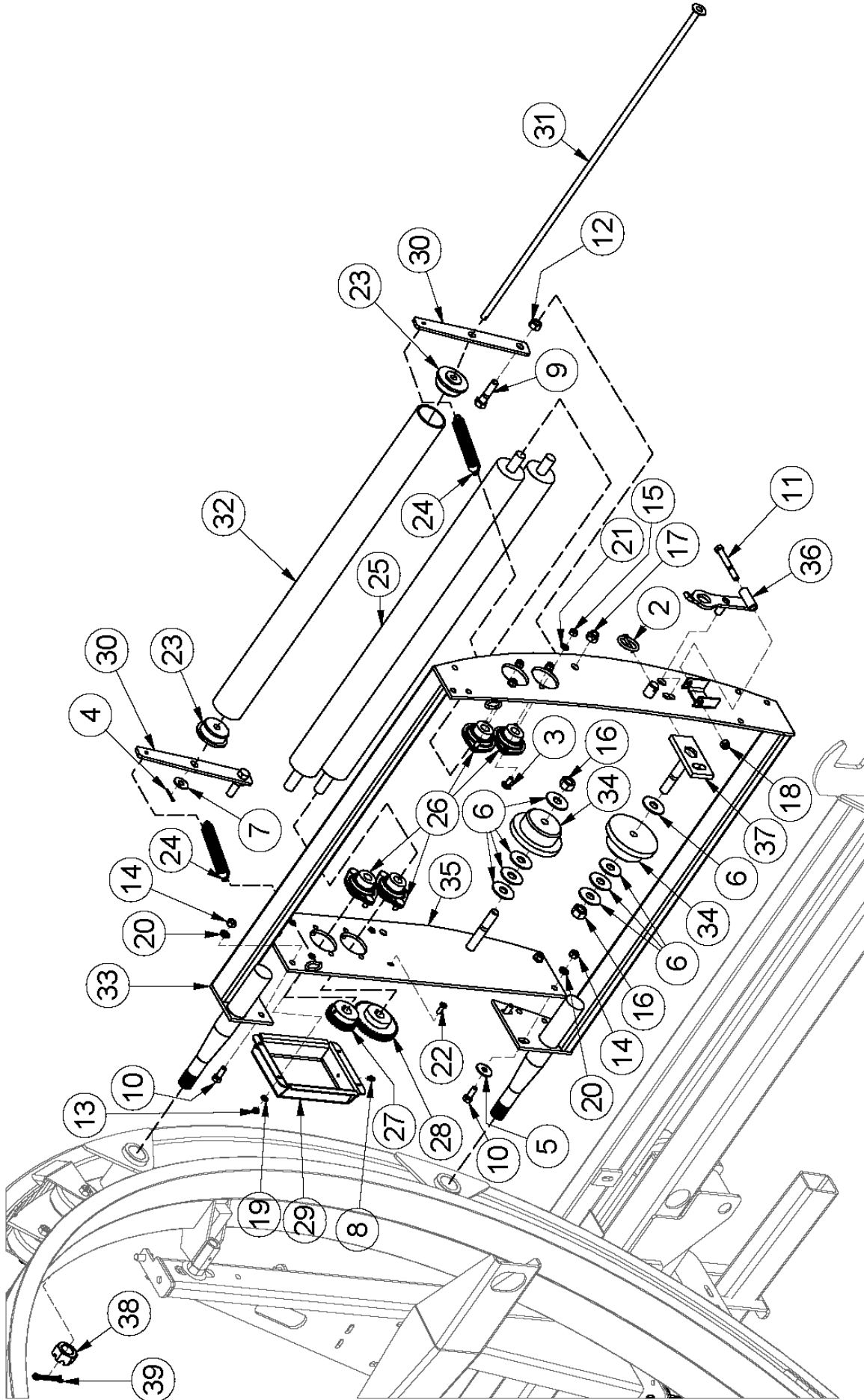
# Hoop - SN 16R235 to Current



## Hoop - SN 16R235 to Current

| ITEM | QTY | PART NUMBER         | DESCRIPTION   |
|------|-----|---------------------|---|
| 1    | 1   | 39532               | Large 5000 Inner Hoop                                     |
| 2    | 1   | 39537               | Large Outer Hoop  |
| 3    | 4   | FW 3/4              | Flatwasher Plated - 3/4" Zinc Plated USS (400)            |
| 4    | 4   | FW 5/8              | Flatwasher - 5/8" Zinc Plated USS (516)                   |
| 5    | 15  | GR 1/4 X 28         | Grease Fitting 1/4-28 Strght-Standr Zerk                  |
| 6    | 2   | HB 3/4-10X2.1/2 YZ8 | Hex Bolt 3/4"-10 x 2.5" Grade 8 Yellow Zinc Hex Cap Screw |
| 7    | 2   | HB 5/8-11X2.0 B     | Hex Bolt 5/8-11 x 2 Grade 5 Plain Finish Hex Cap Screw    |
| 8    | 2   | HN 3/4              | Hex Nut - 3/4"-10 Grade 5 Zinc Plated Finished N.C. (325) |
| 9    | 10  | LN 1/2 N            | Locknuts - 1/2-13 Zinc Plated Nylon Insert Lock Nut       |
| 10   | 2   | LN 5/8 N            | Locknut - 5/8-11 Zinc Plated Nylon Insert Lock Nut        |
| 11   | 8   | TL500-100-015       | Hoop Wheel Axle Bolt                                      |
| 12   | 8   | TL500-200-014       | Hoop Wheel, 4" (2001)                                     |
| 13   | 8   | TL550-200-016       | Spanner   |

# Plastic Wrap Carrier

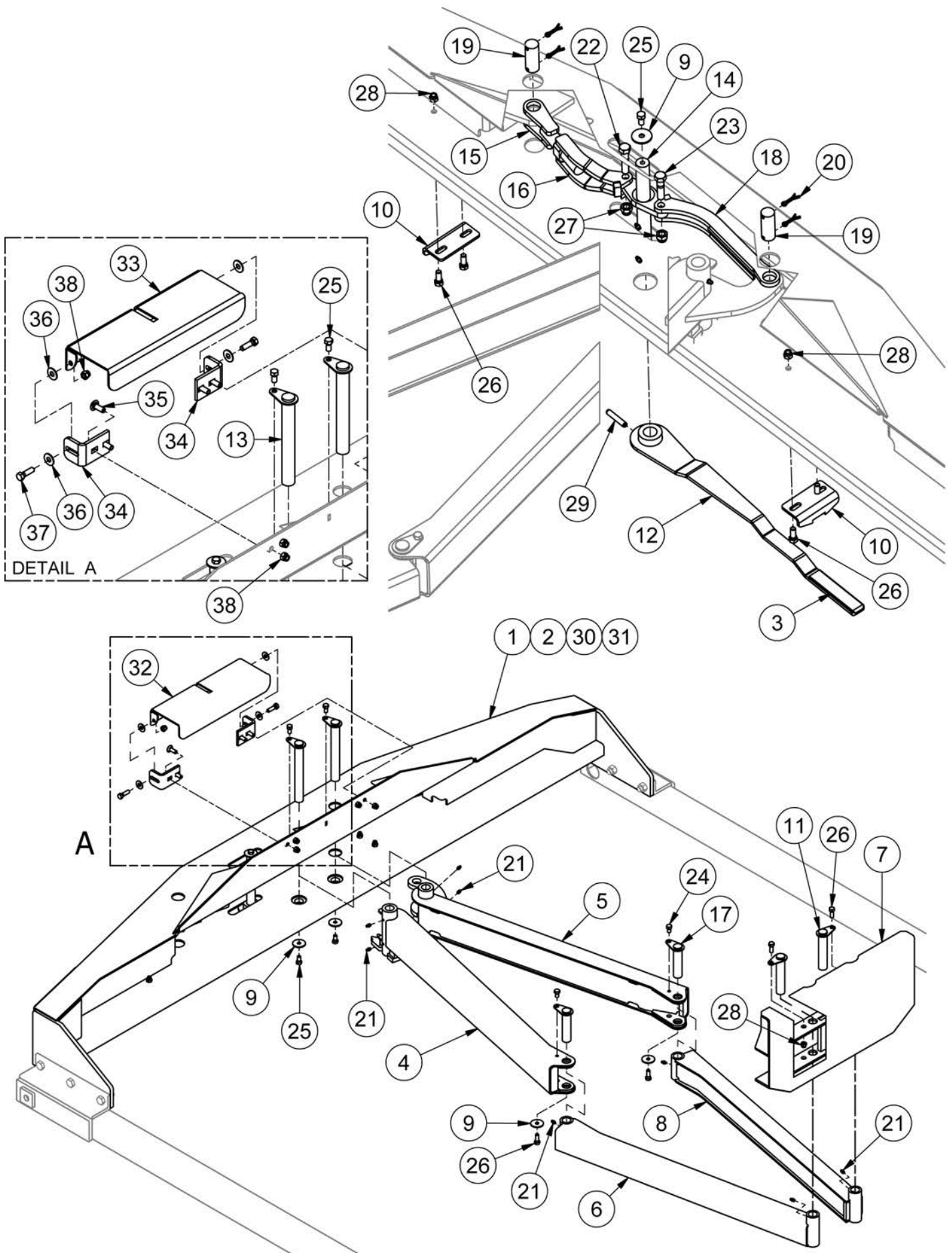


## Plastic Wrap Carrier

| ITEM | QTY | PART NUMBER        | DESCRIPTION   |
|------|-----|--------------------|---|
| 1    | 2   | TL550-100-072      | Complete Plastic Wrap Carrier Assembly  |
| 2    | 1   | 25680              | Lynch Pin 3/16 x 1.5  |
| 3    | 8   | CB 5/16-18X 3/4 Z5 | Carriage Bolt - 5/16-18 x 3/4" Zinc Plated Grade 5                                  |
| 4    | 1   | CP 18X1            | Pin, Cotter 1/8 x 1.0   |
| 5    | 2   | FW 3/8             | Flatwasher Plated, 3/8" Zinc Plated USS (2984)                                      |
| 6    | 8   | FW 5/8             | Flatwasher - 5/8" Zinc Plated USS (516)   |
| 7    | 1   | FW 7/16            | Flatwasher - 7/16" Zinc Plated USS (1620)   |
| 8    | 1   | GR 1/4 X 28        | Grease Fitting 1/4-28 Strght-Standrd Zerk   |
| 9    | 2   | HB 1/2-13X2.0 Z5   | Hex Bolt 1/2-13 x 2" Grade 5 Zinc Plated Hex Cap Screw N.C                          |
| 10   | 4   | HB 3/8-16X1.0 Z5   | Hex Bolt 3/8-16 x 1" Grade 5 Zinc Plated Hex Cap Screw N.C.                         |
| 11   | 1   | HB 3/8-16X3.0 Z5   | Hex Bolt 3/8-16 x 3" Grade 5 Zinc Plated Hex Cap Screw N.C                          |
| 12   | 2   | HN 1/2             | Hex Nut 1/2"-13 Grade 5 Zinc Plated Finished N.C.                                   |
| 13   | 4   | HN 1/4             | Hex Nut 1/4"-20 Grade 5 Zinc Plated Finished N.C.                                   |
| 14   | 4   | HN 3/8             | Hex Nut 3/8"-16 Grade 5 Zinc Plated Finished N.C.                                   |
| 15   | 8   | HN 5/16            | Hex Nut 5/16"-18 Grade 5 Zinc Plated Finished Hex Nut N.C.                          |
| 16   | 2   | HN 5/8             | Hex Nut - 5/8"-11 Grade 5 Zinc Plated Finished N.C.                                 |
| 17   | 2   | LN 1/2 N           | Locknuts - 1/2-13 Zinc Plated Nylon Insert Lock Nut                                 |
| 18   | 1   | LN 3/8 N           | Locknuts - 3/8-16 Zinc Plated Nylon Insert Lock Nut                                 |
| 19   | 4   | LW 1/4             | Lockwasher - 1/4" Zinc Plated Medium Split (15000)                                  |
| 20   | 4   | LW 3/8             | Lockwasher - 3/8" Zinc Plated Medium Split (5500)                                   |
| 21   | 8   | LW 5/16            | Lockwasher - 5/16" Zinc Plated Medium Split (9000)                                  |
| 22   | 4   | MS 1/4X1.1/2 SDS   | Machine Screw - 1/4"-14 x 1-1/2"<br>Unslotted Hex Washer Head Self Drilling Screw Z |
| 23   | 2   | TL500-100-021      | HMWPVC Bearing - Plastic End Cap  |
| 24   | 2   | TL500-100-135      | Spring - Tensioner  |
| 25   | 2   | TL550-100-006      | Tensioner Roller  |
| 26   | 4   | TL550-100-007      | Flange Bearing, 3/4" (2 Flanges & Bearing)  |
| 27   | 1   | TL550-100-008      | Small Gear - 3/4 Bore, KW, SS, 14 1/2 deg, 2.25 P.D.                                |
| 28   | 1   | TL550-100-009      | Large Gear - 3/4 Bore, KW, SS, 14 1/2 deg, 3.50 P.D.                                |
| 29   | 1   | TL550-100-010      | Gear Cover  |
| 30   | 2   | TL550-100-016      | Slave Roller Mount Bracket  |
| 31   | 1   | TL550-100-018      | Axle Shaft  |
| 32   | 1   | TL550-100-022      | Pipe, ABS (Plastic Idler)   |
| 33   | 1   | TL550-100-089      | Main Wrap Bracket   |
| 34   | 2   | TL550-200-012      | Plastic Wrap Spool  |
| 35   | 1   | TL550-200-090      | Main Wrap side Insert   |
| 36   | 1   | TL550-200-103      | Wrap Carrier (Spool) Latch  |
| 37   | 1   | TL550-200-115      | Spool Holder  |
| 38   | 2   | HN 1.0-14NFCastle  | Hex Nut 1"-14 Slotted Plain Finis(NF Castle Nut Bare)                               |
| 39   | 2   | CP 1/4 x 2.0       | Pin, Cotter - 1/4" x 2" Zinc Plated   |



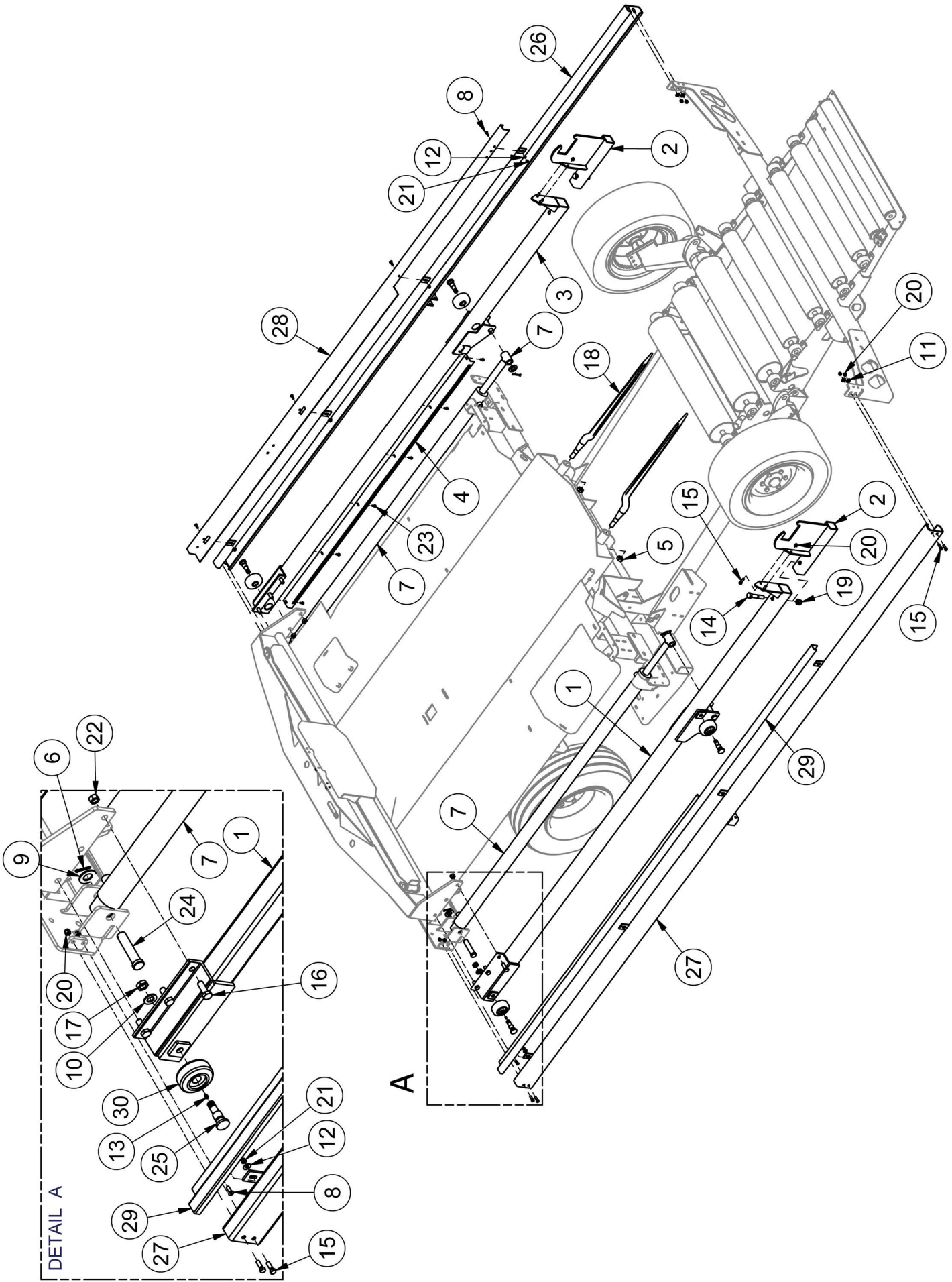
# Front Pushoff



## Front Pushoff

| ITEM | QTY | PART NUMBER      | DESCRIPTION                                   | NOTE                             |
|------|-----|------------------|---|----------------------------------|
| 1    | 1   | 40961            | TLR5000 Front Ram Assembly Large Hoop         | SN 16R234 - current, Item 3-30   |
| 2    | 1   | 31935            | TLR5000 Front Ram Assembly                    | Up to SN 16R233, item 3-29,31    |
| 3    | 1   | 22707            | Rubber Handle for 3/8 X 1 Flat Bar            |                                  |
| 4    | 1   | 30455            | Left Large Arm                                |                                  |
| 5    | 1   | 30456            | Right Large Arm                               |                                  |
| 6    | 1   | 30457            | Left Small Arm                                |                                  |
| 7    | 1   | 30459            | Push Plate                                    |                                  |
| 8    | 1   | 30462            | Right Small Arm                               |                                  |
| 9    | 5   | 30924            | Pin Washer                                    |                                  |
| 10   | 2   | 30958            | Handle Holder                                 |                                  |
| 11   | 2   | 30980            | Last Pushoff Plate Pin                        |                                  |
| 12   | 1   | 30981            | Last Pushoff Handle                           |                                  |
| 13   | 2   | 30982            | Pushoff Middle Pin                            |                                  |
| 14   | 1   | 30983            | Linkage Pivot                                 |                                  |
| 15   | 1   | 30985            | Linkage Adjuster                              | Up to SN 14R001, req. Item 16    |
| 16   | 1   | 30986            | Pivot Adjuster                                | Up to SN 14R001, req. Item 15    |
| 17   | 2   | 30988            | Arm Joint Pin                                 |                                  |
| 18   | 1   | 30989            | Solid Pivot Arm                               |                                  |
| 19   | 2   | 30993            | Ram Linkage Mount Pin                         |                                  |
| 20   | 4   | CP 3/16 X 1      | Pin,Cotter - 3/16" X 1" Zinc Extended Prong   |                                  |
| 21   | 8   | GR 1/4 X 28      | Grease Fitting 1/4-28 Straight Standard Zerk  |                                  |
| 22   | 1   | HB1/2-13X2.25Z5  | Hex Bolt 1/2-13x2 1/4 Gr 5 Zinc Hex Cap Screw |                                  |
| 23   | 1   | HB1/2-13X2Z5     | Hex Bolt 1/2-13x2 Gr 5 Zinc Hex Cap Screw     |                                  |
| 24   | 2   | HB3/8-16X0.625Z5 | Hex Bolt 3/8-16x5/8 Gr 5 Zinc Hex Cap Screw   |                                  |
| 25   | 5   | HB3/8-16X0.75Z5  | Hex Bolt 3/8-16x3/4 Gr 5 Zinc Hex Cap Screw   |                                  |
| 26   | 8   | HB3/8-16X1Z5     | Hex Bolt 3/8-16x1 Gr 5 Zinc Hex Cap Screw     |                                  |
| 27   | 2   | LN1/2-13NCZ5     | LN 1/2-13 Zinc Nylon Insert Lock Nut          |                                  |
| 28   | 6   | LN3/8-16NCZ5     | LN 3/8-16 Zinc Nylon Insert Lock Nut          |                                  |
| 29   | 1   | RP 3/8 x 2       | Pin - Roll Pin 3/8 x 2                        |                                  |
| 30   | 1   | 40921            | Large Hoop ECV Ram                            | SN 16R234 - current              |
| 31   | 1   | 30927            | Ram   | Up to SN 16R233                  |
| 32   | 1   | 42316            | Ram Pushoff Home Latch                        | Items 33-38, SN 18R118 - current |
| 33   | 1   | 42204            | Ram Latch Bracket                             |                                  |
| 34   | 2   | 42205            | Ram Latch Pivot Bracket                       |                                  |
| 35   | 4   | CB3/8-16X1CZ5    | Carriage Bolt - 3/8-16 x 1" Grade 5 Zinc      |                                  |
| 36   | 4   | FW 3/8           | Flatwasher - 3/8" Zinc Plated USS             |                                  |
| 37   | 2   | HB3/8-16X1.25Z5  | Hex Bolt 3/8-16x1 1/4 Gr 5 Zinc Hex Cap Screw |                                  |
| 38   | 6   | LN3/8-16NCZ5     | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut   |                                  |

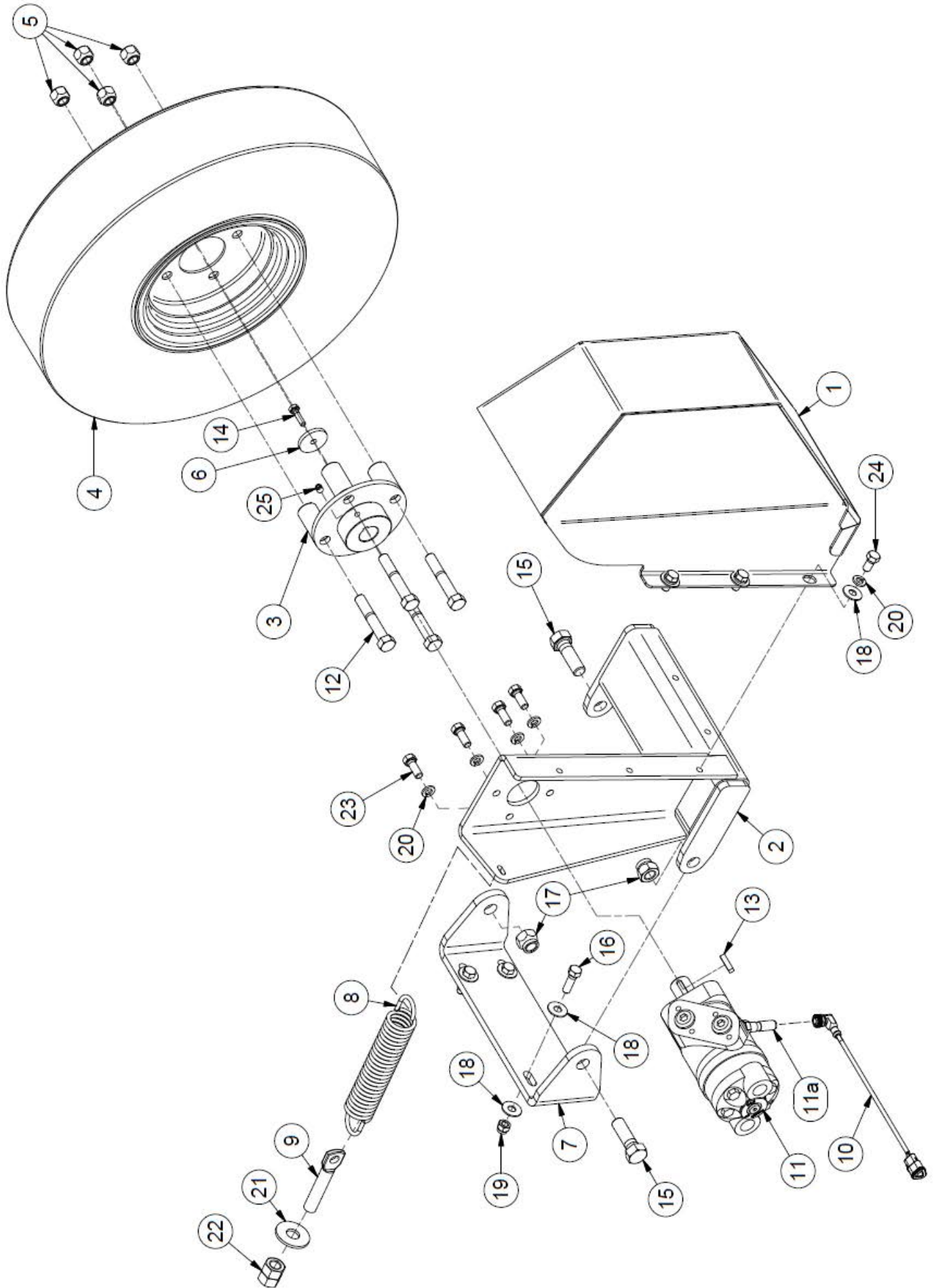
# Side Rails



## Side Rails

| ITEM | QTY | PART NUMBER       | DESCRIPTION  | NOTE |
|------|-----|-------------------|--|------|
| 1    | 1   | 30961             | Left Side Ram Tube                                   |      |
| 2    | 2   | 30967             | 5000 Standard Pushoff Tube Holder                    |      |
| 3    | 1   | 30991             | Right Side Ram Tube                                  |      |
| 4    | 1   | 31710             | Speed Sensor Guide                                   |      |
| 5    | 2   | 39510             | Conus 1 Bale Spear Nut                               |      |
| 6    | 4   | CP 3/16 X 2       | Pin,Cotter - 3/16" X 2" Zinc                         |      |
| 7    | 2   | CYL 550-100-043   | Ram Cylinder - 2.5" X 78"                            |      |
| 8    | 8   | FHSCS5/16-18X1    | Hex Bolt - 5/16"-18 x 1" Flat Socket Cap Screw       |      |
| 9    | 4   | FW 1.0            | Flatwasher - 1" Zinc Plated USS                      |      |
| 10   | 4   | FW 3/4            | Flatwasher - 3/4" Zinc Plated USS                    |      |
| 11   | 4   | FW 3/8            | Flatwasher - 3/8" Zinc Plated USS                    |      |
| 12   | 8   | FW 5/16           | Flatwasher - 5/16" Zinc Plated USS                   |      |
| 13   | 4   | GR 1/4 X 28       | Grease Fitting 1/4-28 Straight Standard Zerk         |      |
| 14   | 2   | HB3/4-10X4Z5      | Hex Bolt 3/4-10x4 Gr 5 Zinc Hex Cap Screw            |      |
| 15   | 12  | HB3/8-16X1.25Z5   | Hex Bolt 3/8-16x1 1/4 Gr 5 Zinc Hex Cap Screw        |      |
| 16   | 6   | HB5/8-18X1.75YZ8  | Hex Bolt 5/8-18x1 3/4 Gr 8 Zinc Hex Cap Screw        |      |
| 17   | 4   | HNJ3/4-16         | Hex Nut - 3/4-16 Zinc Plated Hex Jam Nut             |      |
| 18   | 2   | TL5X2-500-123     | Crank Tine - 35"                                     |      |
| 19   | 2   | LN3/4-10NCZ5      | LN 3/4-10 Zinc Plated Nylon Insert Lock Nut          |      |
| 20   | 14  | LN3/8-16NCZ5      | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut          |      |
| 21   | 8   | LN5/16-18NCZ5     | LN 5/16-18 Zinc Plated Nylon Insert Lock Nut         |      |
| 22   | 6   | LN5/8-18CFZ2      | Center Lock Nut 5/8"-18 Grade A Zinc Plated          |      |
| 23   | 6   | MS 1/4 X 0.75 SDS | Self Drilling Screw - 1/4 x 3/4 Hex Washer Head Zinc |      |
| 24   | 4   | TL550-100-042     | Ram Cylinder Pin                                     |      |
| 25   | 4   | TL5X2-301-156     | Ram Wheel Axle                                       |      |
| 26   | 1   | TL5X2-301-170     | Right Side Rail                                      |      |
| 27   | 1   | TL5X2-301-171     | Left Side Rail                                       |      |
| 28   | 1   | TL5X2-301-172     | Right Door Track                                     |      |
| 29   | 1   | TL5X2-301-176     | Left Guard Track                                     |      |
| 30   | 4   | TLWHEEL0205       | Ram Rail Wheel                                       |      |

# Hoop Drive



## Hoop Drive

| ITEM | QTY | PART NUMBER          | DESCRIPTION   |
|------|-----|----------------------|---|
| 1    | 1   | 25073                | Hoop Wheel Guard Weldment                               |
| 2    | 1   | 31933                | Hoop Motor Mount  |
| 3    | 1   | TL500-100-051        | Wheel Hub- 1" Shaft                                     |
| 4    | 1   | TL500-100-052        | Drive Wheel   |
| 5    | 4   | TL500-100-054        | Wheel Nut, 1/2"   |
| 6    | 1   | TL552404             | Hoop Motor Plate  |
| 7    | 1   | TL5X2-100-090        | Drive Base Bracket                                      |
| 8    | 1   | TL500-101-231        | Wheel Tensioner Spring                                  |
| 9    | 1   | PP00051              | Flat Eye Bolt 5/8 x 7.0                                 |
| 10   | 1   | 32607                | ECV Hoop Speed Sensor Harness                           |
| 11   | 1   | VAL MLHPQ200C7URS-NE | Hyd. Motor (Hoop Motor) Rear Ported with Sensor         |
| 11a  | 1   | 32665                | Hoop Speed Sensor for ECV Wrappers                      |
| 12   | 4   | HB 1/2-20X3.0 Z5     | Hex Bolt 1/2-20x3 Grade 5 Zinc Plated Hex Cap Screw NF  |
| 13   | 1   | KS40254              | Keystock .25 x 1  |
| 14   | 1   | HB 1/4-20X1 Z5       | Hex Bolt 1/4-20x1 Grade 5 Zinc Plated Hex Cap Screw     |
| 15   | 2   | HB 5/8-11X2 Z5       | Hex Bolt 5/8-11x2 Grade 5 Zinc Plated Hex Cap Screw     |
| 16   | 4   | HB 3/8-16X1.25 Z5    | Hex Bolt 3/8-16x1 1/4 Grade 5 Zinc Plated Hex Cap Screw |
| 17   | 2   | LN 5/8 N             | LN 5/8-11 Zinc Plated Nylon Insert Lock Nut             |
| 18   | 13  | FW 3/8               | Flatwasher - 3/8" Zinc Plated USS                       |
| 19   | 4   | LN 3/8 N             | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut             |
| 20   | 9   | LW 3/8               | LW - 3/8" Zinc Plated Medium Split                      |
| 21   | 1   | FW 5/8               | Flatwasher - 5/8" Zinc Plated USS                       |
| 22   | 2   | HN 5/8               | Hex Nut 5/8"-11 Grade 5 Zinc Plated Finished            |
| 23   | 4   | HB 3/8-16X1 Z5       | Hex Bolt 3/8-16x1 Grade 5 Zinc Plated Hex Cap Screw     |
| 24   | 5   | HB 3/8-16X0.75 Z5    | Hex Bolt 3/8-16x3/4 Grade 5 Zinc Plated Hex Cap Screw   |
| 25   | 1   | SS 516X38            | Allan Head Set Screw, 5/16-18 x 3/8                     |

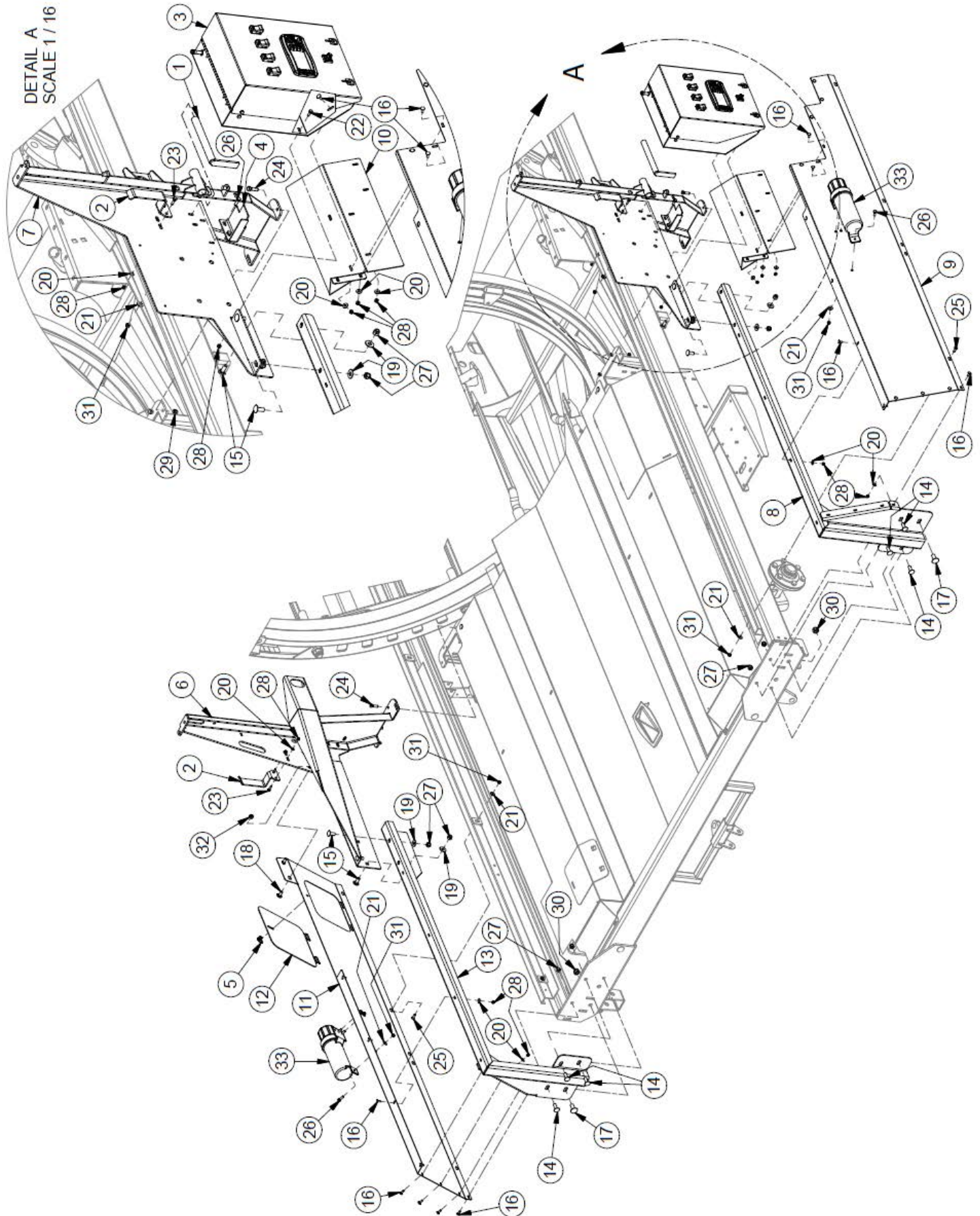


## Hoop Brace - Up to SN 16R192

| ITEM | QTY | PART NUMBER        | DESCRIPTION  |
|------|-----|--------------------|--|
| 1    | 1   | 25667              | Hoop Lock Pin  |
| 2    | 1   | 32788              | Right Front Hoop Brace   |
| 3    | 1   | 33361              | Control Panel Mount  |
| 4    | 1   | 35387              | Left Side Shield   |
| 5    | 1   | 35388              | Right Side Shield  |
| 6    | 1   | 35606              | Control Panel Shield   |
| 7    | 2   | 35621              | Tape Holder  |
| 8    | 1   | 35634              | Left Rear Hoop Brace   |
| 9    | 1   | 35638              | Hoop Lock  |
| 10   | 1   | 35640              | Right Rear Hoop Brace  |
| 11   | 1   | 36043              | Control Panel  |
| 12   | 2   | TL5X2-201-111      | Manual Holder  |
| 13   |     | CB 1/2-13X1.1/4 Z5 | Carriage Bolt Zinc   |
| 14   |     | CB 1/4-20X 3/4 Z   | Carriage Bolt 1/4-20 x 3/4" Zinc Plated                        |
| 15   |     | FW 1/2             | Flatwasher - 1/2" Zinc Plated USS                              |
| 16   |     | FW 1/4             | Flatwasher - 1/4" Zinc Plated USS                              |
| 17   |     | FW 5/16            | Flatwasher - 5/16" Zinc Plated USS                             |
| 18   |     | HB 5/16-18X1.0 Z5  | Hex Bolt 5/16-18 x 1" Grade 5 Zinc Plated Hex Cap Screw NC     |
| 19   |     | HB 1/4-20X 3/4 Z5  | Hex Bolt - 1/4"-20 x 3/4" Grade 5 Zinc Plated Hex Cap Screw NC |
| 20   |     | LN 1/4 N           | Locknuts - 1/4-20 Zinc Plated Nylon Insert                     |
| 21   |     | LN 1/2 N           | Locknuts - 1/2-13 Zinc Plated Nylon Insert Lock Nut            |
| 22   |     | LN 5/16 N          | Locknut - 5/16-18 Type NE Zinc Plated Nylon Insert             |



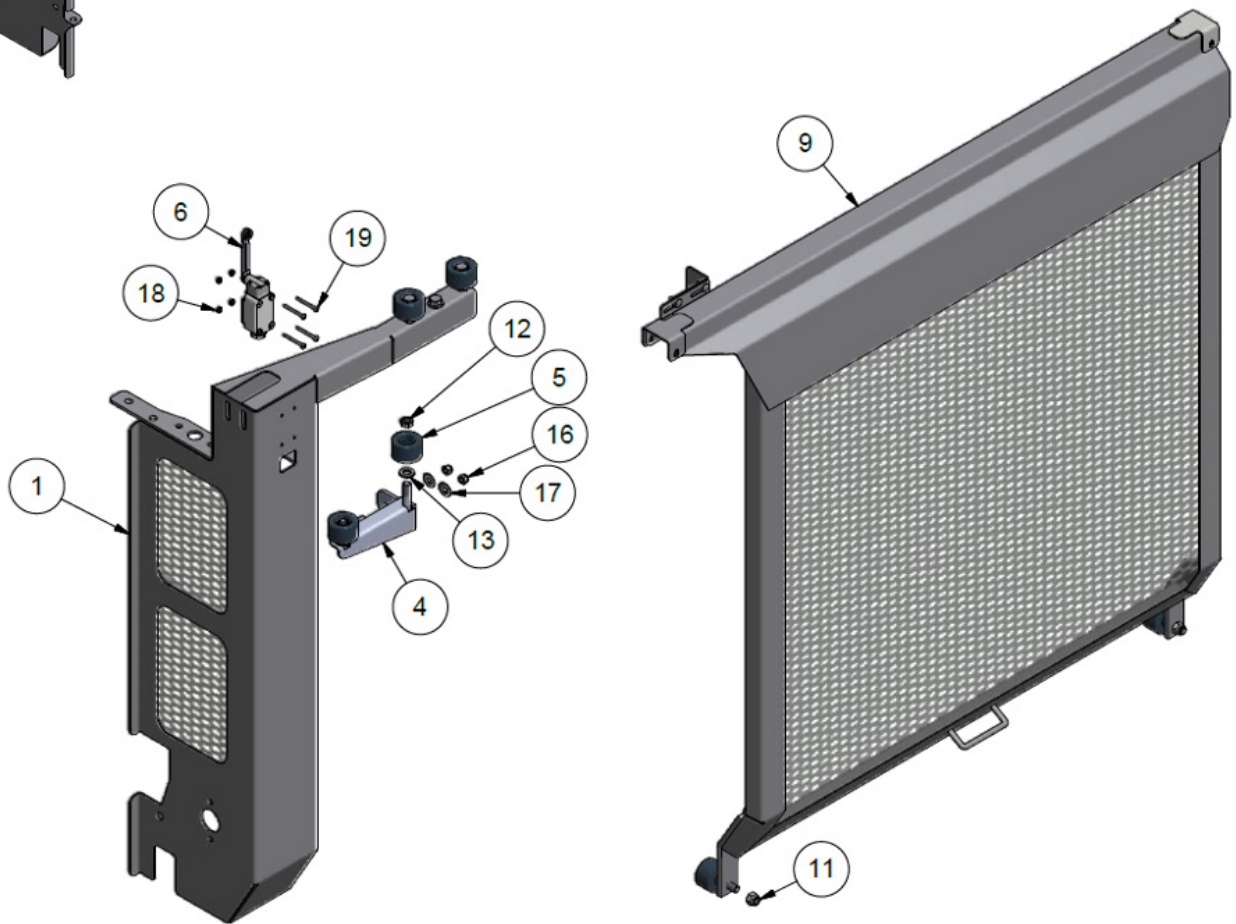
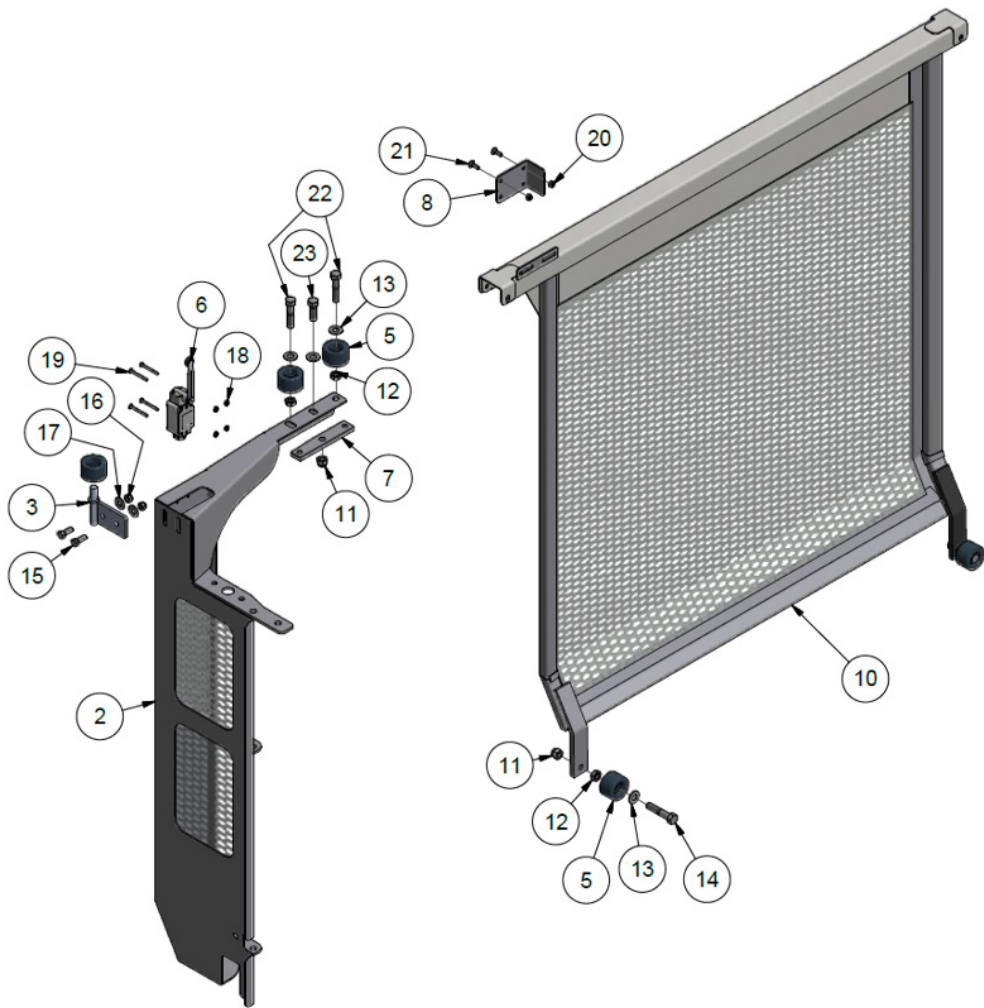
# Hoop Brace - SN 16R235 to Current



## Hoop Brace - SN 16R235 to Current

| ITEM | QTY | PART NUMBER        | DESCRIPTION   |
|------|-----|--------------------|---|
| 1    | 1   | 25667              | Hoop Lock Pin   |
| 2    | 2   | 35621              | Single Tape Holder                                      |
| 3    | 1   | 35630              | ECV Control Panel (2017+)                               |
| 4    | 1   | 35638              | Hoop Lock   |
| 5    | 3   | 36268              | Cam Lock  |
| 6    | 1   | 39545              | Right Guide Mount                                       |
| 7    | 1   | 40273              | Left Bale Guide   |
| 8    | 1   | 40274              | Left Hoop Brace   |
| 9    | 1   | 40280              | ECV Left Shield   |
| 10   | 1   | 40281              | Control Panel Shield                                    |
| 11   | 1   | 40290              | ECV Right Shield  |
| 12   | 1   | 40294              | ECV Oil Panel Lid                                       |
| 13   | 1   | 40541              | Right Hoop Brace  |
| 14   | 6   | CB 1/2-13 X1.5 Z5  | Carriage Bolt - 1/2-13 x 1 1/2" Grade 5 Zinc            |
| 15   | 8   | CB 1/2-13 X1.25 Z5 | Carriage Bolt - 1/2-13 x 1 1/4" Grade 5 Zinc            |
| 16   | 26  | CB 1/4-20 X0.75 Z5 | Carriage Bolt - 1/4-20 x 3/4" Grade 5 Zinc              |
| 17   | 8   | CB 5/8-11 X1.5 Z5  | Carriage Bolt - 5/8-11 x 1 1/2" Grade 5 Zinc            |
| 18   | 2   | CB 7/16-14 X1 Z5   | Carriage Bolt - 7/16-14 x 1" Grade 5 Zinc               |
| 19   | 20  | FW 1/2             | Flatwasher - 1/2" Zinc Plated USS                       |
| 20   | 34  | FW 1/4             | Flatwasher - 1/4" Zinc Plated USS                       |
| 21   | 12  | FW 5/16            | Flatwasher - 5/16" Zinc Plated USS                      |
| 22   | 4   | HB 1/4-20X0.75 Z5  | Hex Bolt 1/4-20x3/4 Grade 5 Zinc Plated Hex Cap Screw   |
| 23   | 4   | HB 1/4-20X1 Z5     | Hex Bolt 1/4-20x1 Grade 5 Zinc Plated Hex Cap Screw     |
| 24   | 6   | HB 3/8-16X1.25 Z5  | Hex Bolt 3/8-16x1 1/4 Grade 5 Zinc Plated Hex Cap Screw |
| 25   | 4   | HB 5/16-18X1 FHSCS | Hex Bolt - 5/16"-18 x 1" Flat Socket Cap Screw          |
| 26   | 8   | HB 5/16-18X1 Z5    | Hex Bolt 5/16-18x1 Grade 5 Zinc Plated Hex Cap Screw    |
| 27   | 14  | LN 1/2 N           | LN 1/2-13 Zinc Plated Nylon Insert Lock Nut             |
| 28   | 34  | LN 1/4 N           | LN 1/4-20 Zinc Plated Nylon Insert Lock Nut             |
| 29   | 6   | LN 3/8 N           | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut             |
| 30   | 2   | LN 5/8 N           | LN 5/8-11 Zinc Plated Nylon Insert Lock Nut             |
| 31   | 12  | LN 5/16 N          | LN 5/16-18 Zinc Plated Nylon Insert Lock Nut            |
| 32   | 2   | LN 7/16 N          | LN 7/16-14 Zinc Plated Nylon Insert Lock Nut            |
| 33   | 2   | TL5X2-201-111      | Operators Manual Holder                                 |

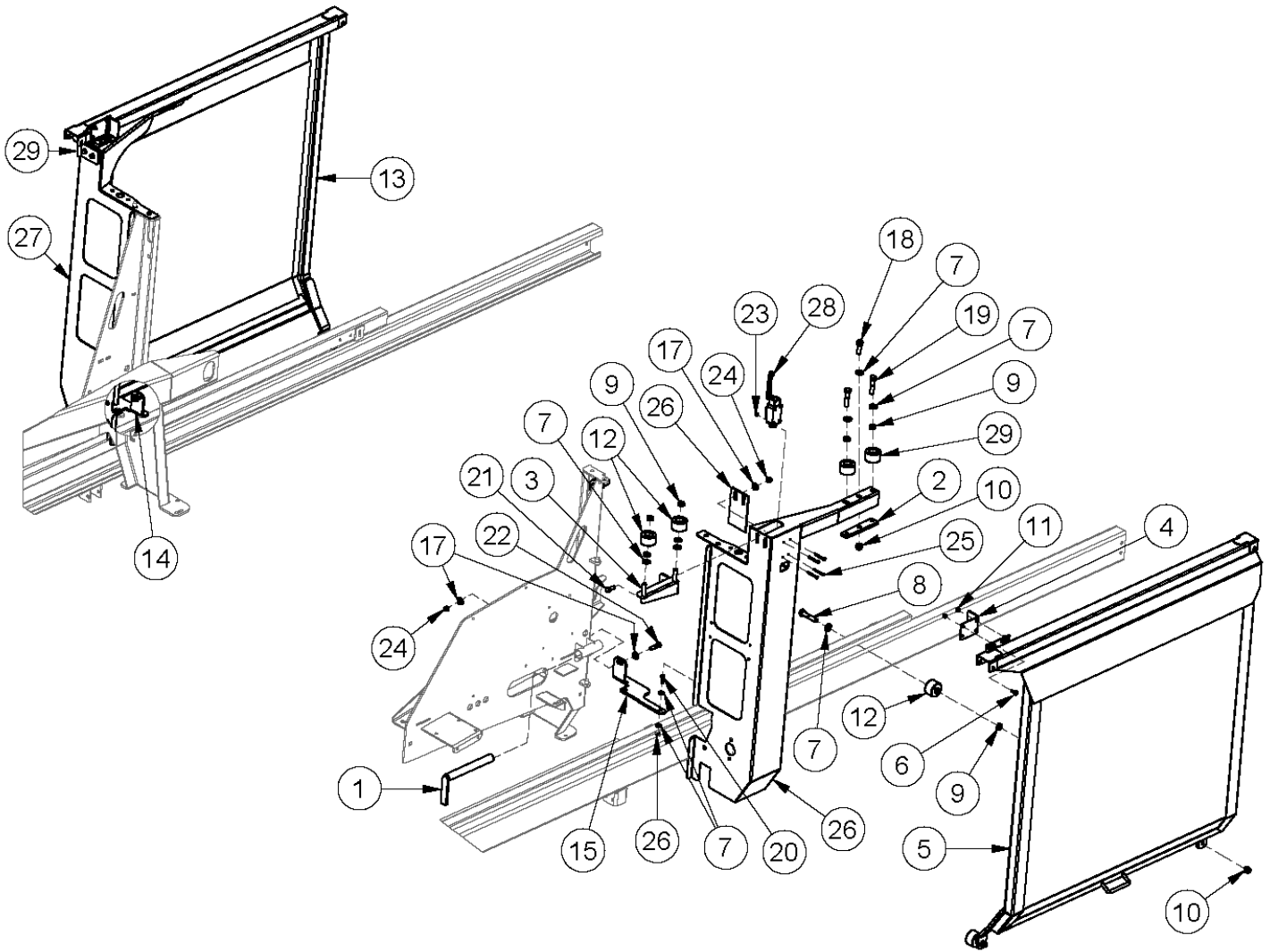
# Safety Guards - Up to SN 16R192



## Safety Guards - Up to SN 16R192

| ITEM | QTY | PART NUMBER        | DESCRIPTION   |
|------|-----|--------------------|---|
| 1    | 1   | TL109-100-363      | Left Safety Guard   |
| 2    | 1   | TL109-100-364      | Right Safety Guard  |
| 3    | 1   | TL5X2-301-103      | Right Top Door Roller Bracket                               |
| 4    | 1   | TL5X2-301-120      | Left Top Door Roller Bracket                                |
| 5    | 10  | TL5X2-301-121      | Door Roller   |
| 6    | 2   | TL550-100-060      | Limit Switch  |
| 7    | 2   | 28741              | Rear Roller Mount   |
| 8    | 2   | 25062              | Door Switch Tab   |
| 9    | 1   | 31562              | Left Door   |
| 10   | 1   | 33222              | Right Door  |
| 11   | 6   | LN 1/2 N           | Locknuts - 1/2-13 Zinc Plated Nylon Insert Lock Nut         |
| 12   | 8   | HN 1/2 JAM         | Hex Nut - 1/2-13 Zinc Plated Hex Jam Nut                    |
| 13   | 10  | FWSAE 1/2          | Flatwasher, 1/2" Zinc Plated SAE                            |
| 14   | 4   | HB 1/2-13X2.1/2 Z5 | Hex Bolt 1/2-13 x 2 1/2" Grade 5 Zinc Plated Hex Cap Screw  |
| 15   | 4   | HB 3/8-16X1.1/4 Z5 | Hex Bolt 3/8-16 x 1 1/4" Grade 5 Zinc Plated Hex Cap Screw  |
| 16   | 4   | LN 3/8 N           | Locknuts - 3/8-16 Zinc Plated Nylon Insert Lock Nut         |
| 17   | 4   | FW 3/8             | Flatwasher Plated, 3/8" Zinc Plated USS (2984)              |
| 18   | 8   | HN 10-24           | Nut - 10-24 Low Carbon Zinc Plated Machine Screw Nut        |
| 19   | 8   | HB 10-24X1.3/4 Z5  | Hex Bolt - #10-24 x 1 3/4 Zinc Finish Flat Socket Cap Screw |
| 20   | 4   | LN 1/4 N           | Locknuts - 1/4-20 Zinc Plated Nylon Insert                  |
| 21   | 4   | CB 1/4-20X 3/4 Z   | Carriage Bolt 1/4-20 x 3/4" Zinc Plated                     |
| 22   | 4   | HB 1/2-13X2.1/4 Z5 | Hex Bolt - 1/2"-13 x 2 1/4"                                 |
| 23   | 2   | HB 1/2-13X1.1/2 Z5 | Hex Bolt 1/2-13 x 1 1/2" Grade 5 Zinc Plated Hex Cap Screw  |

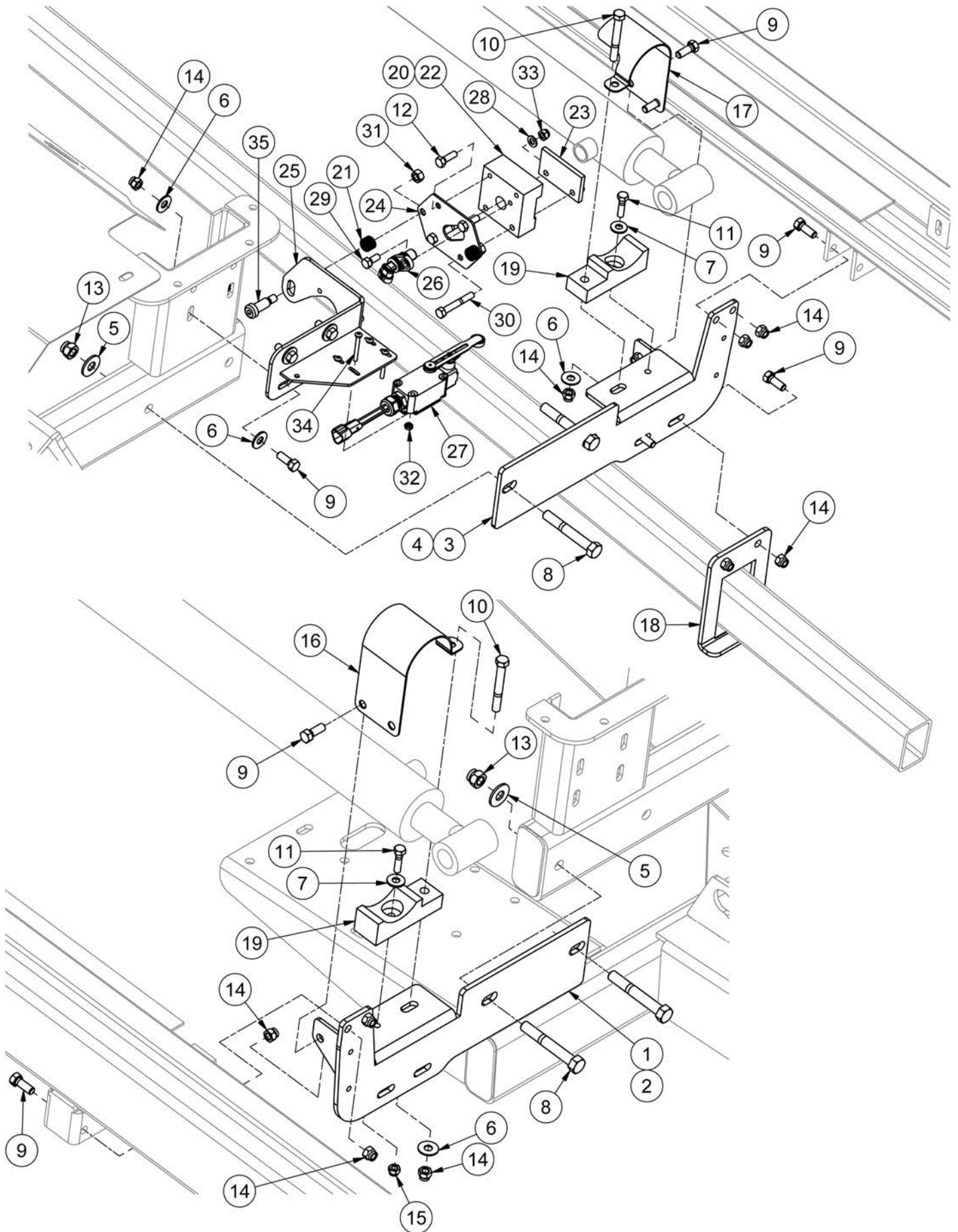
# Safety Guard - SN 16R235 to Current



## Safety Guard - SN 16R235 to Current

| ITEM | QTY | PART NUMBER        | DESCRIPTION  |
|------|-----|--------------------|--|
| 1    | 1   | 25667              | Hoop Lock Pin  |
| 2    | 2   | 28741              | Door Roller Mount  |
| 3    | 1   | 31565              | Door Mount Extension   |
| 4    | 1   | 25062              | Door Switch Tab  |
| 5    | 1   | 40284              | Left Safety Guard  |
| 6    | 2   | CB 1/4-20X 3/4 Z   | Carriage Bolt 1/4-20 x 3/4" Zinc Plated                      |
| 7    | 18  | FW 1/2             | Flatwasher - 1/2" Zinc Plated USS (1096)                     |
| 8    | 2   | HB 1/2-13X2.1/2 Z5 | Hex Bolt 1/2-13 x 2 1/2" Grade 5 Zinc Plated Hex Cap Screw   |
| 9    | 8   | HN 1/2 JAM         | Hex Nut - 1/2-13 Zinc Plated Hex Jam Nut                     |
| 10   | 4   | LN 1/2 N           | Locknuts - 1/2-13 Zinc Plated Nylon Insert Lock Nut          |
| 11   | 2   | LN 1/4 N           | Locknuts - 1/4-20 Zinc Plated Nylon Insert                   |
| 12   | 11  | TL559906           | Door Roller  |
| 13   | 1   | 40289              | Right Safety Guard   |
| 14   | 1   | 40945              | Right Door Support   |
| 15   | 1   | 40946              | Left Door Support  |
| 16   | 4   | FW 1/4             | Flatwasher - 1/4" Zinc Plated USS (6480)                     |
| 17   | 8   | FW 3/8             | Flatwasher Plated, 3/8" Zinc Plated USS (2984)               |
| 18   | 2   | HB 1/2-13X1.1/2 Z5 | Hex Bolt 1/2-13 x 1 1/2" Grade 5 Zinc Plated Hex Cap Screw   |
| 19   | 4   | HB 1/2-13X2.1/4 Z5 | Hex Bolt - 1/2"-13 x 2 1/4"                                  |
| 20   | 2   | HB 1/4-20X1.0 Z5   | Hex Bolt 1/4-20 x 1" Grade 5 Zinc Plated Hex Cap Screw       |
| 21   | 14  | HB 3/8-16X1.0 Z5   | Hex Bolt 3/8-16 x 1" Grade 5 Zinc Plated Hex Cap Screw       |
| 22   | 2   | HB 3/8-16X1.1/2 Z5 | Hex Bolt - 3/8-16 x 1 1/2" Grade 5 Zinc Plated Hex Cap Screw |
| 23   | 8   | HN 10-24           | Nut - 10-24 Low Carbon Zinc Plated Machine Screw Nut         |
| 24   | 6   | LN 3/8 N           | Locknuts - 3/8-16 Zinc Plated Nylon Insert Lock Nut          |
| 25   | 8   | MS 10X1 3/4        | Machine Screw 10-24x1-3/4                                    |
| 26   | 1   | TL109-100-363      | Left Door Mount  |
| 27   | 1   | TL109-100-364      | Right Door Mount   |
| 28   | 2   | TL550-100-060      | Limit Switch   |
| 29   | 1   | TL5X2-301-103      | Right Top Door Roller Bracket                                |

# Cylinder Supports

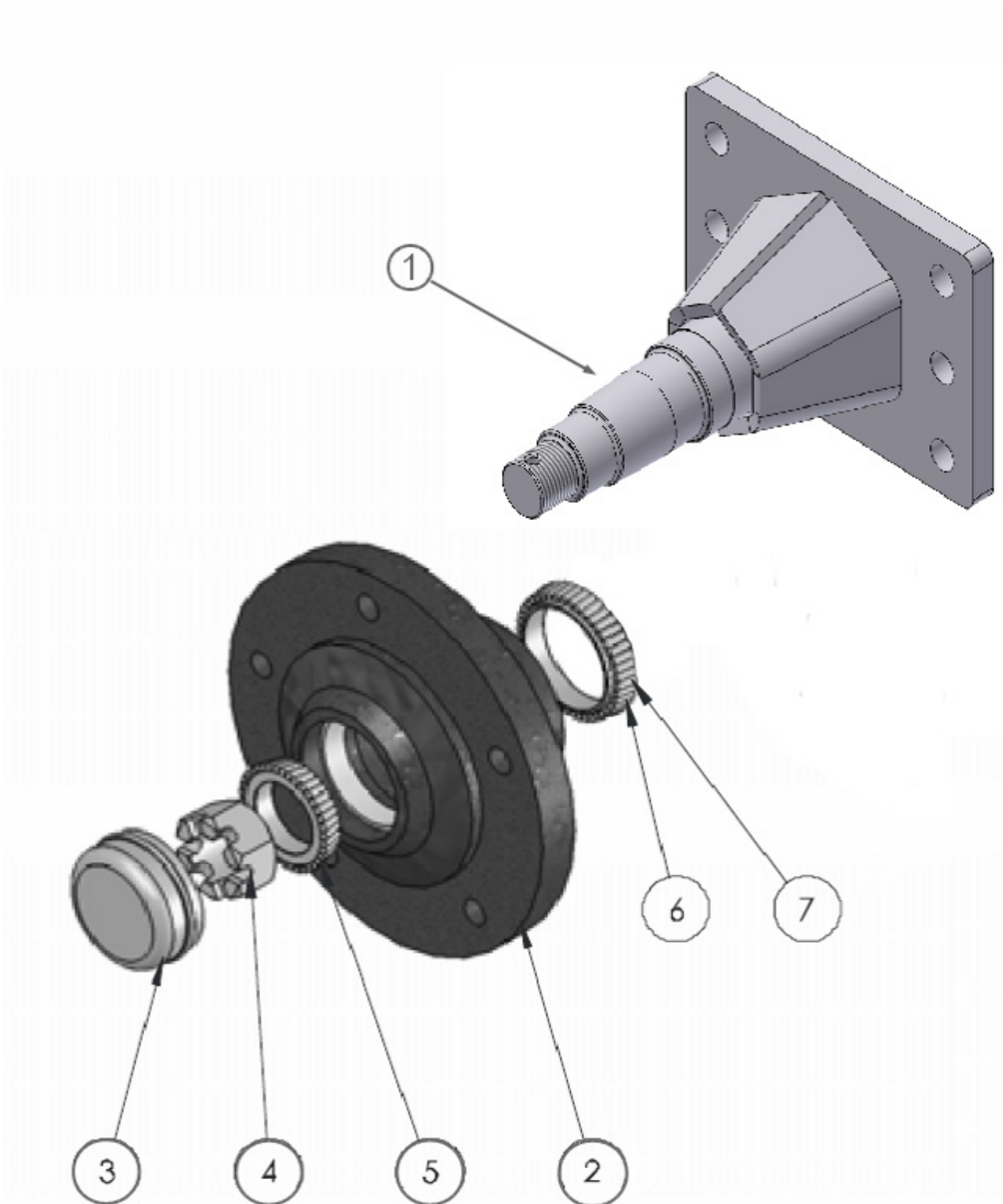


## Cylinder Supports

| ITEM | QTY | PART NUMBER       | DESCRIPTION  | NOTE              |
|------|-----|-------------------|--|-------------------|
| 1    | 1   | 40278             | Left Cyl Support                                     | 16R235 to Current |
| 2    | 1   | 25671             | Left Cylinder Support                                | Up to 16R192      |
| 3    | 1   | 40278M            | Right Cyl Mount                                      | 16R235 to Current |
| 4    | 1   | 25672             | Right Cylinder Support                               | Up to 16R192      |
| 5    | 4   | FW 1/2            | Flatwasher - 1/2" Zinc Plated USS                    |                   |
| 6    | 10  | FW 3/8            | Flatwasher - 3/8" Zinc Plated USS                    |                   |
| 7    | 2   | FW 5/16           | Flatwasher - 5/16" Zinc Plated USS                   |                   |
| 8    | 4   | HB1/2-13X3.5Z5    | Hex Bolt 1/2-13x3 1/2 Gr 5 Zinc Hex Cap Screw        |                   |
| 9    | 14  | HB3/8-16X1Z5      | Hex Bolt 3/8-16x1 Gr 5 Zinc Hex Cap Screw            |                   |
| 10   | 2   | HB3/8-16X3Z5      | Hex Bolt 3/8-16x3 Gr 5 Zinc Hex Cap Screw            |                   |
| 11   | 2   | HB5/16-18X1.25Z5  | Hex Bolt 5/16-18x1 1/4 Gr 5 Zinc Hex Cap Screw       |                   |
| 12   | 2   | HB5/16-18X1Z5     | Hex Bolt 5/16-18x1 Gr 5 Zinc Hex Cap Screw           |                   |
| 13   | 4   | LN1/2-13NCZ5      | LN 1/2-13 Zinc Plated Nylon Insert Lock Nut          |                   |
| 14   | 16  | LN3/8-16NCZ5      | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut          |                   |
| 15   | 2   | LN5/16-18NCZ5     | LN 5/16-18 Zinc Plated Nylon Insert Lock Nut         |                   |
| 16   | 1   | TL5X2-100-132     | RH Cylinder Mount                                    |                   |
| 17   | 1   | TL5X2-100-133     | LH Cylinder Clamp                                    |                   |
| 18   | 1   | TL5X2-500-142     | Bottom Push Off Holder                               |                   |
| 19   | 2   | TL550-200-109     | Cylinder Mount                                       |                   |
| 20   | 1   | 32506             | ECV Ram Position Sensor Assembly                     | Items 22 - 35     |
| 21   | 2   | 27566             | Spring Compression for Wrappers .97 OD X 2.0 Long    |                   |
| 22   | 1   | 31712             | UHMW Sensor Guide Strip                              |                   |
| 23   | 1   | 31713             | UHMW Sensor Guide Strip                              |                   |
| 24   | 1   | 31714             | ECV Wrapper, Mounting Plate for Ram Position Sensor  |                   |
| 25   | 1   | 31977             | ECV Wrapper, Ram Position Sensor Bracket             |                   |
| 26   | 1   | 32632             | ECV Speed Sensor                                     |                   |
| 27   | 1   | 32633             | ECV Wrapper, L&R Door Switch, Ram Home Switch        |                   |
| 28   | 2   | FW 5/16           | Flatwasher - 5/16" Zinc Plated USS                   |                   |
| 29   | 3   | HB5/16-18X0.75Z5  | Hex Bolt 5/16-18x3/4 Gr 5 Zinc Hex Cap Screw         |                   |
| 30   | 2   | HB5/16-18X2.25Z5  | Hex Bolt 5/16-18x2 1/4 Gr 5 Zinc Hex Cap Screw       |                   |
| 31   | 2   | HN3/8-16CZ5       | Hex Nut 3/8"-16 Gr 5 Zinc Plated Finished            |                   |
| 32   | 4   | LN 10-24          | K-Lok Locknut  |                   |
| 33   | 2   | LN5/16-18NCZ5     | LN 5/16-18 Zinc Plated Nylon Insert Lock Nut         |                   |
| 34   | 4   | MS #10X24X1.75    | Machine Screw - (Inch)                               |                   |
| 35   | 2   | SHSS1/2X1X3/8-16Z | Socket Head Shoulder Screws - 1/2 Shldr x 1 x 3/8-16 |                   |



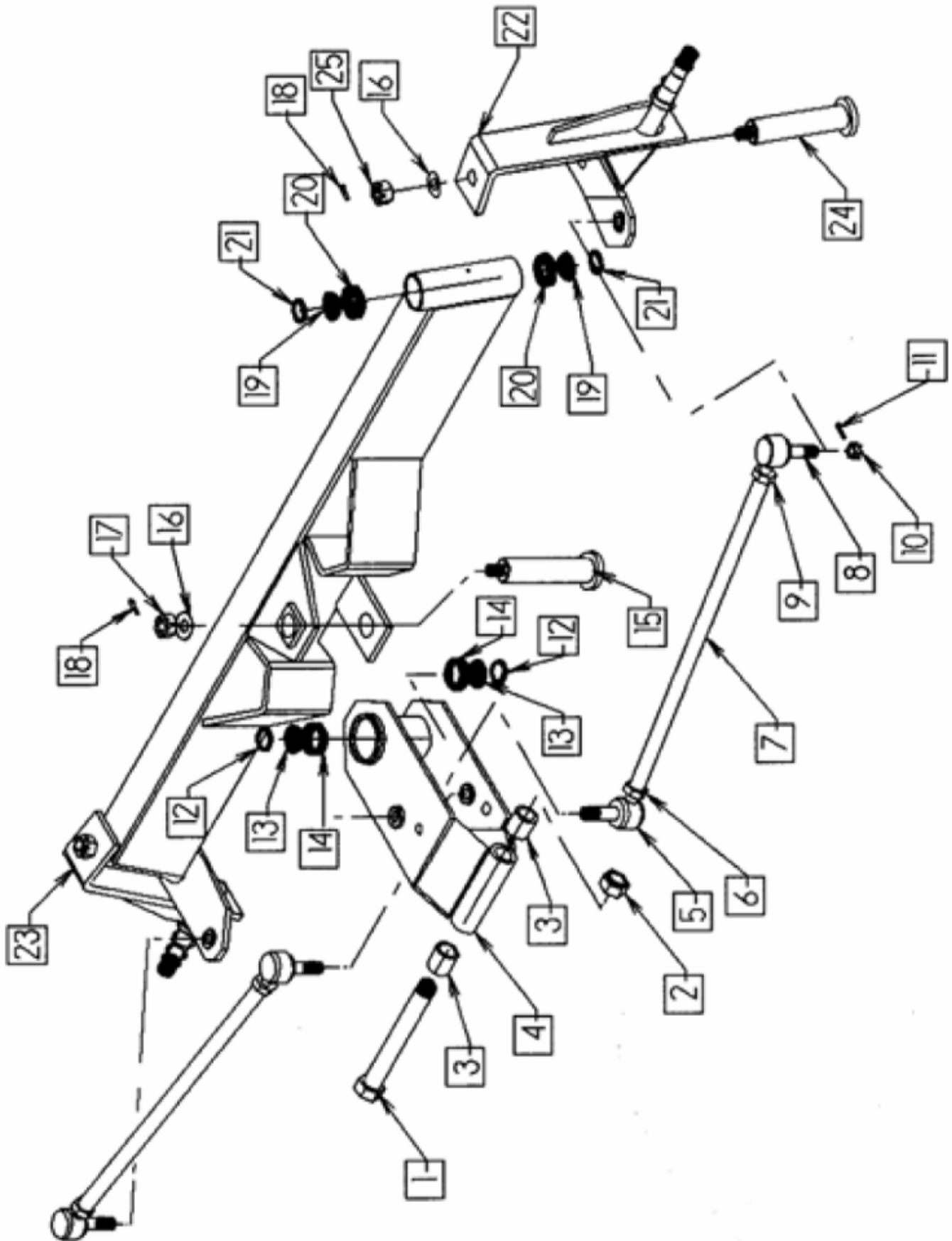
# Axle-Spindle-Hub



## Axle-Spindle-Hub

| <b>ITEM</b> | <b>QTY</b> | <b>PART NUMBER</b> | <b>DESCRIPTION</b> | <b>SERIAL BREAK</b> |
|-------------|------------|--------------------|--------------------|---------------------|
| 1           | 1          | TL550-200-001      | Spindle            | Up to 11R012        |
| 1           | 1          | TL109-100-356      | Spindle            | 11R012 to Current   |
| 2           | 1          | TL500-100-066      | Hub                |                     |
| 3           | 1          | TL500-100-073      | Dust Cap           |                     |
| 4           | 1          | TL500-100-070      | Castellated Nut    |                     |
| 5           | 1          | TL500-100-068      | Outer Bearing      |                     |
| 6           | 1          | TL500-100-064      | Inner Bearing      |                     |
| 7           | 1          | TL500-100-063      | Inner Seal         |                     |

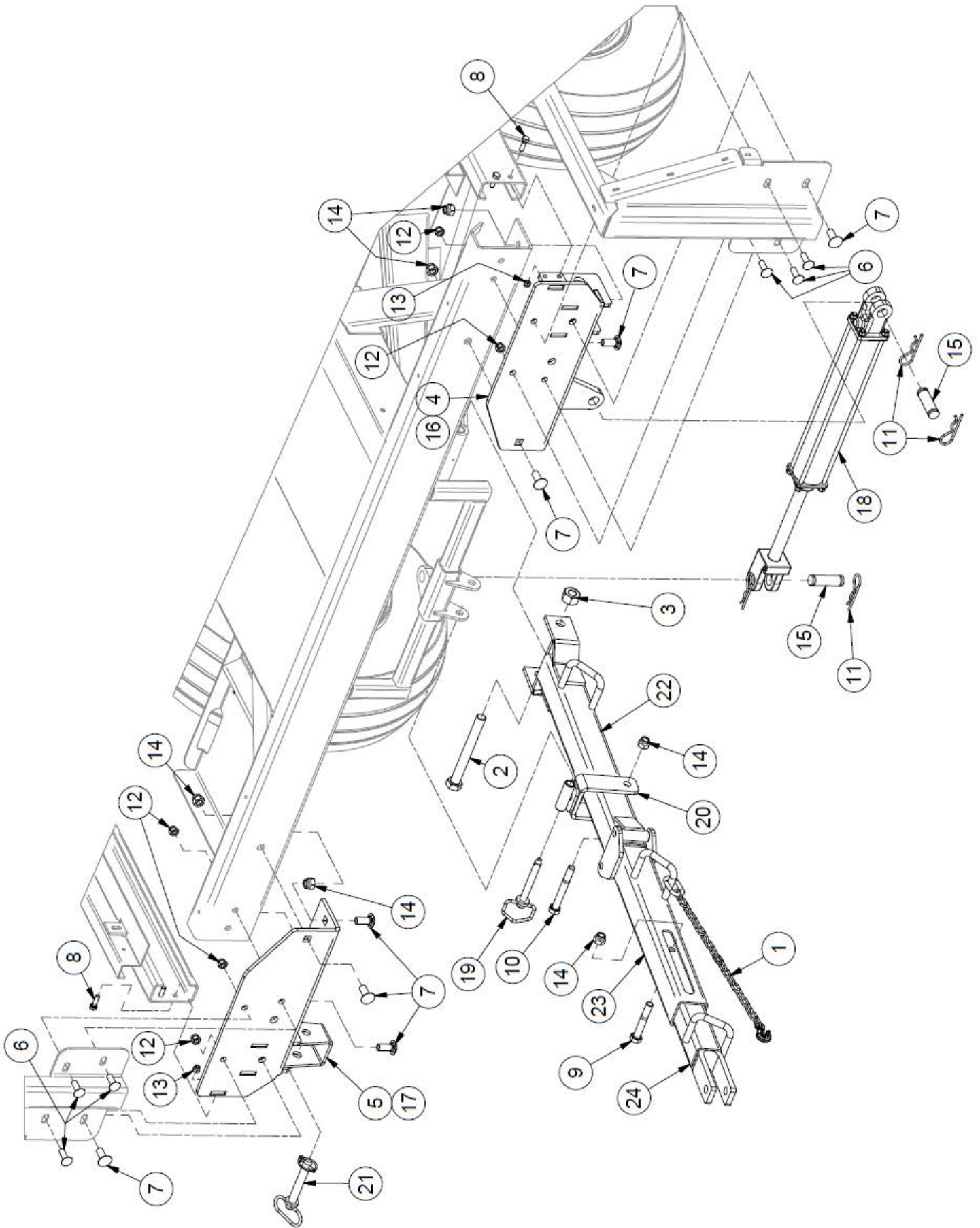
# Front Axle



## Front Axle

| ITEM | QTY | PART NUMBER   | DESCRIPTION                   |
|------|-----|---------------|-------------------------------|
| 1    | 1   | TL500-100-152 | 7/8 x 8 Bolt                  |
| 2    | 1   | TL500-100-153 | 7/8 Locknut                   |
| 3    | 2   | TL550-111-012 | Tongue Bracket Bushing        |
| 4    | 1   | TL550-221-008 | Tongue Bracket Asm            |
| 5    | 2   | TL550-111-006 | Tie Rod End Right Thread      |
| 6    | 2   | TL550-111-003 | ¾ Jam Nut (NF RH)             |
| 7    | 2   | TL550-220-001 | Tie Rod                       |
| 8    | 2   | TL550-111-007 | Tie Rod End Left Thread       |
| 9    | 2   | TL550-111-002 | ¾ Jam nut (NF LH)             |
| 10   | 4   | TL550-111-004 | 9/16 NF Slotted Hex Nut       |
| 11   | 4   | TL550-111-005 | 1/8 Cotter Pin                |
| 12   | 2   | TL550-111-011 | Tongue Bracket Seal           |
| 13   | 2   | TL550-111-010 | Tongue Bracket Timkin Bearing |
| 14   | 2   | TL550-111-009 | Tongue Bracket Timkin Cup     |
| 15   | 1   | TL550-221-013 | Tongue Bracket Pin            |
| 16   | 3   | TL550-111-014 | 13/16 Flatwasher              |
| 17   | 1   | TL550-111-015 | Tongue Bracket Nut            |
| 18   | 3   | TL550-111-016 | 3/16 x 2 Cotter Pin           |
| 19   | 4   | TL550-200-080 | Spindle Bearing Timkin Cone   |
| 20   | 4   | TL550-200-081 | Spindle Bearing Timkin Cup    |
| 21   | 4   | TL550-200-082 | Spindle Bearing Seal          |
| 22   | 1   | TL550-100-083 | Left Side Spindle Assy        |
| 23   | 1   | TL550-100-084 | Right Side Spindle Assy       |
| 24   | 2   | TL550-100-085 | Spindle Pin                   |
| 25   | 2   | TL500-100-070 | 1" Fine Thread Castle Nut     |

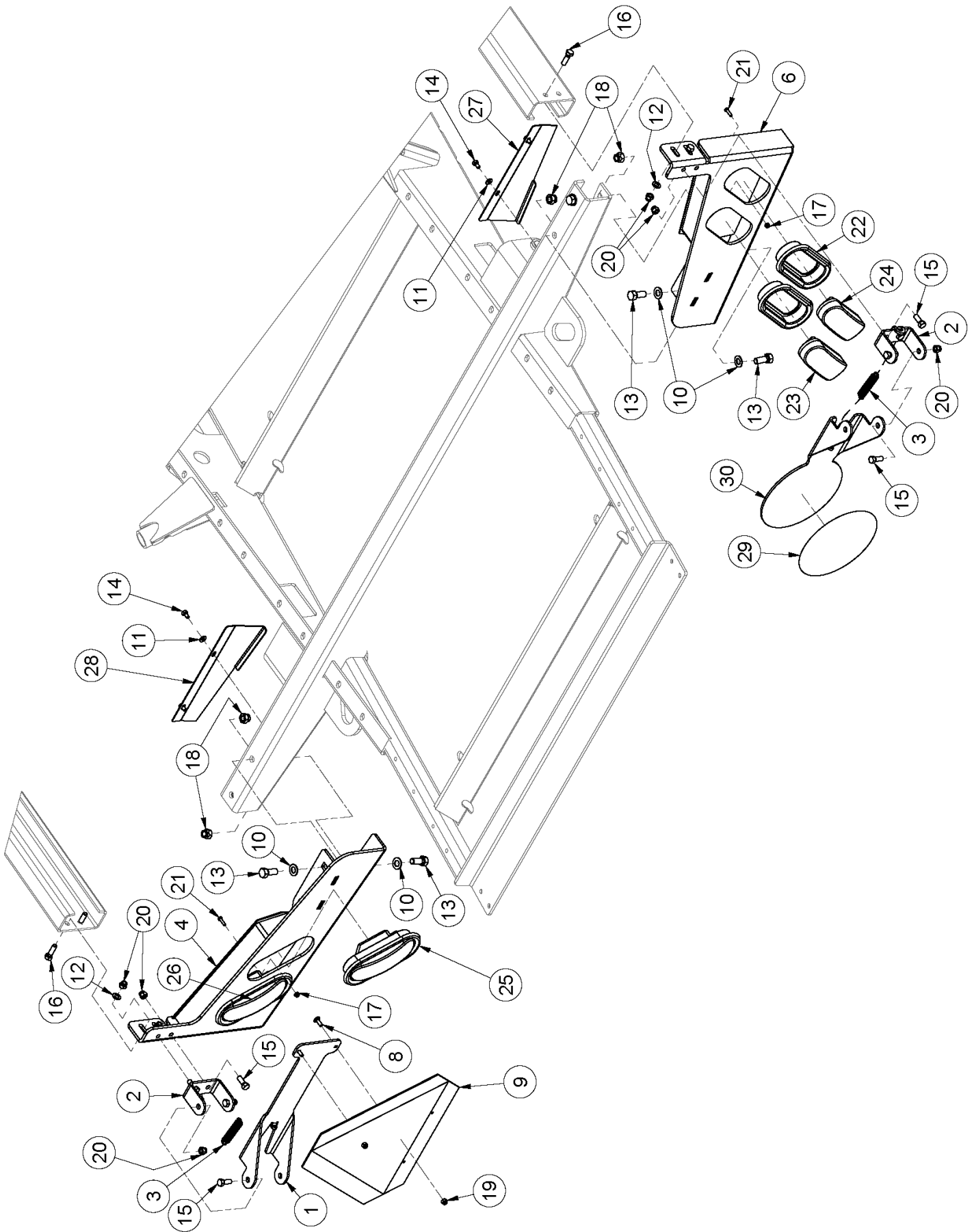
# Front Corner - Steering



## Front Corner - Steering

| ITEM | QTY | PART NUMBER       | DESCRIPTION   | SERIALBREAK       |
|------|-----|-------------------|---|-------------------|
| 1    | 1   | 25261             | Safety Chain 10000 # 59"                                |                   |
| 2    | 1   | HB 7/8-9X8.0 Z5   | Hex Bolt Plated Gr. 5 N.C                               |                   |
| 3    | 1   | LN 7/8 N          | Locknuts 7/8-9 Zinc Plated Nylon Insert Lock Nut        |                   |
| 4    | 1   | 40270             | Front Left Corner                                       | 16R236 to Current |
| 5    | 1   | 40286             | Front Right Corner                                      | 16R236 to Current |
| 6    | 6   | CB 1/2-13 X1.5 Z5 | Carriage Bolt - 1/2-13 x 1 1/2" Grade 5 Zinc            |                   |
| 7    | 8   | CB 5/8-11 X1.5 Z5 | Carriage Bolt - 5/8-11 x 1 1/2" Grade 5 Zinc            |                   |
| 8    | 4   | HB 3/8-16X1.25 Z5 | Hex Bolt 3/8-16x1 1/4 Grade 5 Zinc Plated Hex Cap Screw |                   |
| 9    | 1   | HB 5/8-11X4 Z5    | Hex Bolt 5/8-11x4 Grade 5 Zinc Plated Hex Cap Screw     |                   |
| 10   | 1   | HB 5/8-11X5 Z5    | Hex Bolt 5/8-11x5 Grade 5 Zinc Plated Hex Cap Screw     |                   |
| 11   | 4   | HP 5/32 X 3.0     | Pin Hair - #9 9Ga 3-1/16" OAL Zinc Plated               |                   |
| 12   | 6   | LN 1/2 N          | LN 1/2-13 Zinc Plated Nylon Insert Lock Nut             |                   |
| 13   | 4   | LN 3/8 N          | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut             |                   |
| 14   | 10  | LN 5/8 N          | LN 5/8-11 Zinc Plated Nylon Insert Lock Nut             |                   |
| 15   | 2   | TL5X2-500-116     | Cylinder Pin  |                   |
| 16   | 1   | TL5X2-500-131     | Front Right Corner                                      | 13R001 to 16R234  |
| 17   | 1   | TL5X2-500-132     | Front Left Corner                                       | 13R001 to 16R234  |
| 18   | 1   | TL500-100-103     | Hydraulic Cylinder, 2 x 16                              |                   |
| 19   | 1   | TL500-100-154     | Tongue Pin  |                   |
| 20   | 1   | TL500-100-160     | Tongue Holder   |                   |
| 21   | 1   | TL550-100-050     | Pushoff Pin   |                   |
| 22   | 1   | TL550-100-051     | Main Tongue   |                   |
| 23   | 1   | TL550-100-052     | Swinging Tongue   |                   |
| 24   | 1   | TL550-100-053     | Sliding Tongue  |                   |

# Rear Corners

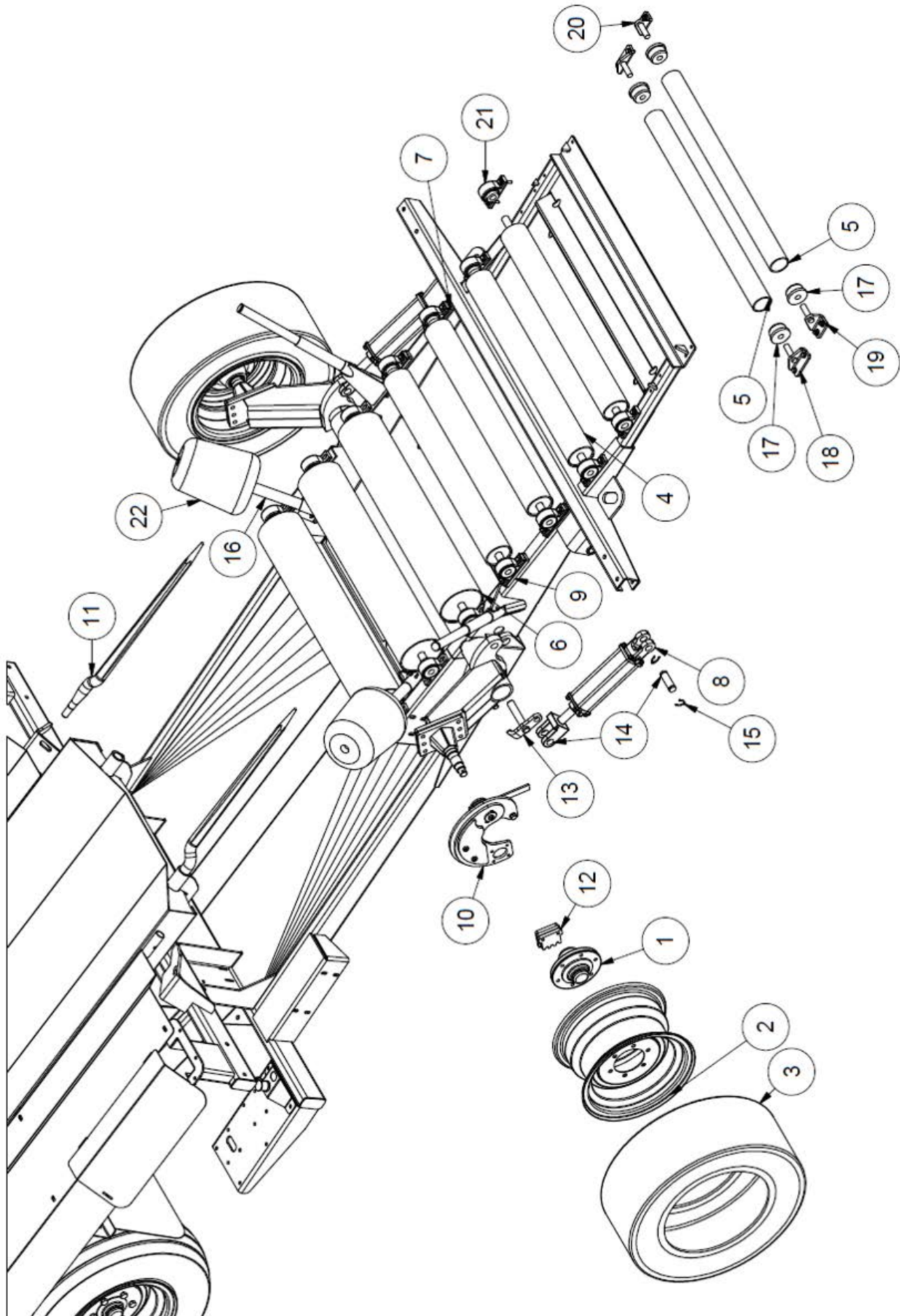


## Rear Corners

| ITEM | QTY | PART NUMBER        | DESCRIPTION                                   | NOTE                   |
|------|-----|--------------------|---|------------------------|
| 1    | 1   | 25075              | SMV Attachment                                |                        |
| 2    | 2   | 25534              | SMV Mounting Bracket                          |                        |
| 3    | 2   | 28771              | SMV Spring                                    |                        |
| 4    | 1   | 39524              | Rear Corner Left Light Bracket Weldment       | 16R236 to Current      |
| 5    | 1   | TL5X2-500-135      | Left Rear Light Bracket                       | 13R001 to 16R234       |
| 6    | 1   | 39848              | Rear Right Light Mount                        | 16R236 to Current      |
| 7    | 1   | TL5X2-500-134      | Right Rear Light Bracket                      | 13R001 to 16R234       |
| 8    | 2   | CB 1/4-20 X0.75 Z5 | Carriage Bolt - 1/4-20 x 3/4" Gr 5 Zinc       |                        |
| 9    | 1   | DESMV              | Slow Moving Vehicle Sign                      |                        |
| 10   | 8   | FW 1/2             | Flatwasher - 1/2" Zinc Plated USS             |                        |
| 11   | 4   | FW 1/4             | Flatwasher - 1/4" Zinc Plated USS             |                        |
| 12   | 4   | FW 3/8             | Flatwasher - 3/8" Zinc Plated USS             |                        |
| 13   | 8   | HB 1/2-13X1.25 Z5  | Hex Bolt 1/2-13x1 1/4 Gr 5 Zinc Hex Cap Screw |                        |
| 14   | 4   | HB 1/4-20X0.5 Z5   | Hex Bolt 1/4-20x1/2 Gr 5 Zinc Hex Cap Screw   |                        |
| 15   | 8   | HB 3/8-16X1 Z5     | Hex Bolt 3/8-16x1 Gr 5 Zinc Hex Cap Screw     |                        |
| 16   | 4   | HB 3/8-16X1.25 Z5  | Hex Bolt 3/8-16x1 1/4 Gr 5 Zinc Hex Cap Screw |                        |
| 17   | 2   | LN #10 N           | LN 3/16-24 Zinc Plated Nylon Insert Lock Nut  |                        |
| 18   | 8   | LN 1/2 N           | LN 1/2-13 Zinc Plated Nylon Insert Lock Nut   |                        |
| 19   | 2   | LN 1/4 N           | LN 1/4-20 Zinc Plated Nylon Insert Lock Nut   |                        |
| 20   | 11  | LN 3/8 N           | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut   |                        |
| 21   | 2   | MS #10X24X0.75     | Machine Screw - (Inch)                        |                        |
| 22   | 4   | TL5X2-500-136      | Light Grommet                                 |                        |
| 23   | 2   | TL5X2-500-137      | Red Brake Light                               |                        |
| 24   | 2   | TL5X2-500-138      | Amber Brake Light                             |                        |
| 25   | 2   | TL5X2-500-140      | Red Light Kit                                 | Items 22 & 23          |
| 26   | 2   | TL5X2-500-141      | Amber Light Kit                               | Items 22 & 24          |
| 27   | 1   | TL5X2-500-170      | Right Rear Cross Member Cap                   |                        |
| 28   | 1   | TL5X2-500-171      | Left Rear Cross Member Cap                    |                        |
| 29   | 1   | DE45928            | Decal - Large SIS 20mph                       | US Machines Only       |
|      | 1   | DE45926            | Decal - Large SIS 30kph                       | International Machines |
| 30   | 1   | 45923              | SIS Mount                                     |                        |



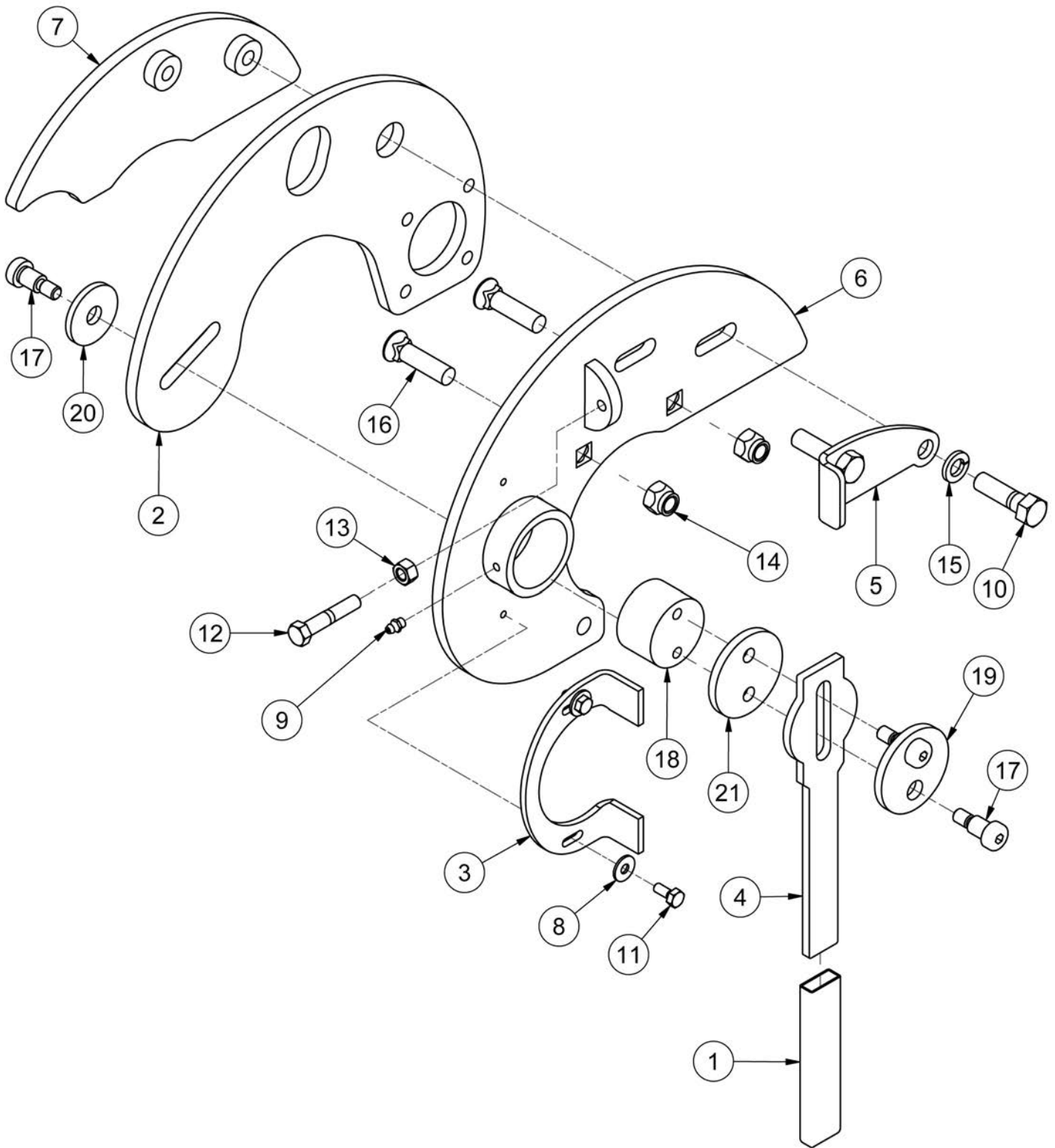
# Rear Axle & Roller Bed



## Rear Axle & Roller Bed

| ITEM | QTY | PART NUMBER   | DESCRIPTION                              |
|------|-----|---------------|--|
| 1    | 2   | TL5X2-500-113 | Hub c/w Parts (4000 lb)                  |
| 2    | 2   | TL550-200-134 | Rim with Gear                            |
| 3    | 2   | TL5X2-500-114 | Lug Tire                                 |
| 4    | 4   | TL500-100-099 | 4" Roller                                |
| 5    | 2   | TL550-200-106 | 2 7/8" Roller                            |
| 6    | 3   | TL500-100-086 | 6 5/8" Roller                            |
| 7    | 2   | TL5X2-500-124 | 1/4" Roller Spacer                       |
| 8    | 2   | 36642         | Hydraulic Cylinder for TLR5000 Lift Tail |
| 9    | 2   | TL5X2-500-125 | 1/2" Roller Spacer                       |
| 10   | 1   | TL109-100-360 | Power Drive Assembly                     |
| 11   | 2   | TL5X2-500-123 | 35" Crank Tine                           |
| 12   | 1   | TL109-100-345 | Parking Brake Pad                        |
| 13   | 1   | 27528         | Transport Lock Pin                       |
| 14   | 2   | TL5X2-500-116 | Cylinder Pin                             |
| 15   | 4   | 25299         | Cylinder Clip                            |
| 16   | 2   | TL550-301-239 | Guide Roller Spindle                     |
| 17   | 4   | TL550-100-092 | 3/4" Nylon Bearing End Cap               |
| 18   | 2   | TL550-200-003 | Small Roller Mount                       |
| 19   | 1   | TL550-200-005 | Left Rear Small Roller Mount             |
| 20   | 1   | TL550-200-004 | Right Rear Small Roller Mount            |
| 21   | 14  | TL550-100-030 | 1" Pillow Block Bearing                  |
| 22   | 2   | TL550-301-238 | Plastic Guide Roller                     |

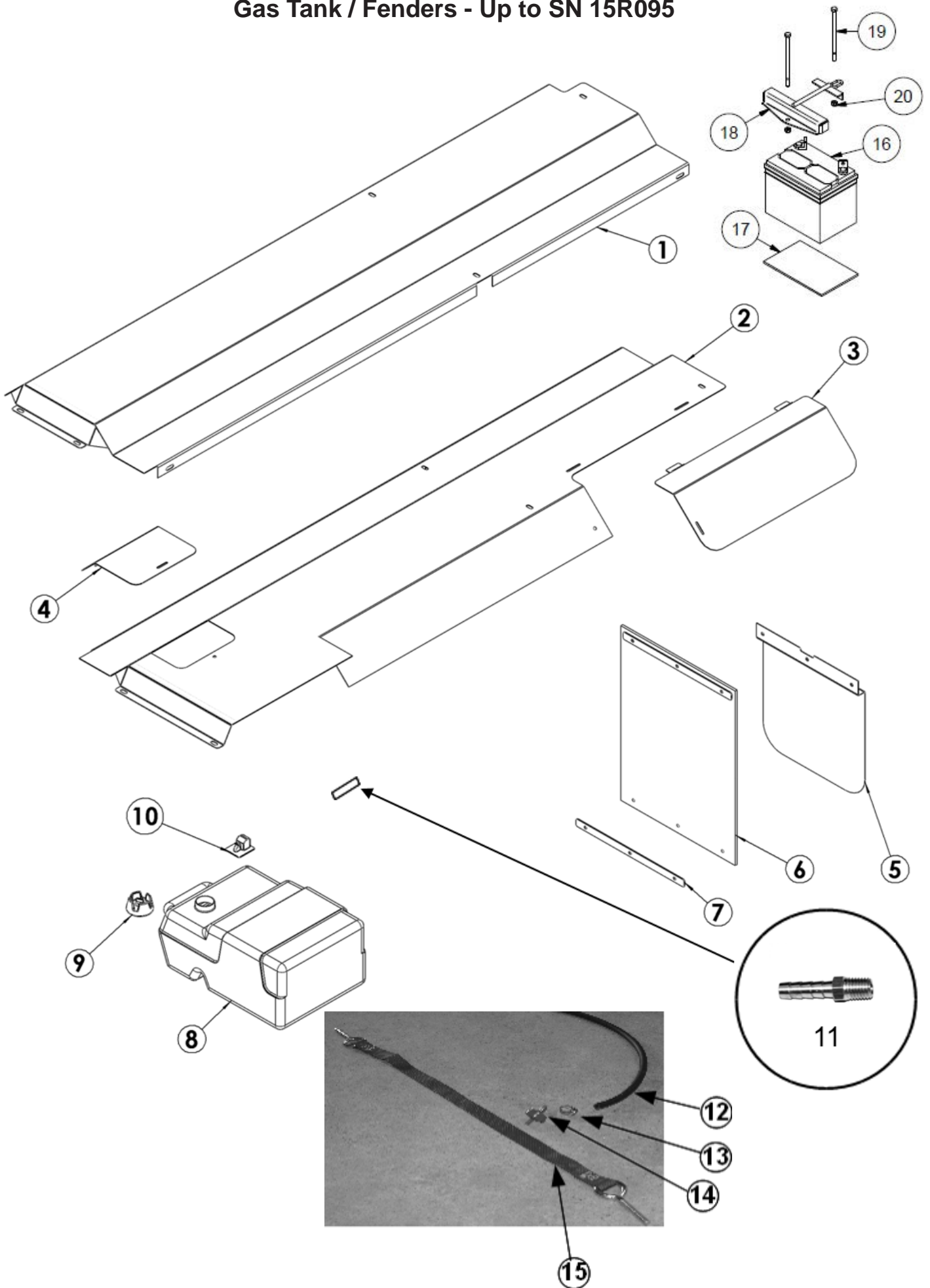
# TL109-100-360 - Brake Assembly



## TL109-100-360 - Brake Assembly

| ITEM | QTY | PART NUMBER         | DESCRIPTION  |
|------|-----|---------------------|--|
| 1    | 1   | 22707               | Rubber Handle for 3/8 X 1 Flat Bar                     |
| 2    | 1   | 25116               | Drive Engaging Plate                                   |
| 3    | 1   | 25121               | Handle Lock  |
| 4    | 1   | 25122               | Handle   |
| 5    | 1   | 25687               | Outside Plate Guide                                    |
| 6    | 1   | 25688               | Power Drive Plate Weldment                             |
| 7    | 1   | 25703               | Bolt On Plate  |
| 8    | 2   | FW 1/4              | Flatwasher - 1/4" Zinc Plated USS                      |
| 9    | 1   | GR 1/4 X 28         | Grease Fitting 1/4-28 Straight Standard Zerk           |
| 10   | 2   | HB1/2-20X1.75Z5     | Hex Bolt 1/2-20x1 3/4 Gr 5 Zinc Hex Cap Screw          |
| 11   | 2   | HB1/4-20X0.625Z5    | Hex Bolt 1/4-20x5/8 Gr 5 Zinc Hex Cap Screw            |
| 12   | 1   | HB3/8-16X2Z5        | Hex Bolt 3/8-16x2 Gr 5 Zinc Hex Cap Screw              |
| 13   | 1   | HN3/8-16CZ5         | Hex Nut 3/8"-16 Gr 5 Zinc Finished                     |
| 14   | 2   | LN1/2-13NCZ5        | LN 1/2-13 Zinc Plated Nylon Insert Lock Nut            |
| 15   | 2   | LW 1/2              | LW -1/2" Zinc Plated Medium Split                      |
| 16   | 2   | PB 1/2-13X2         | Plow Bolts - 1/2-13 x 2 Flat Head Gr.5                 |
| 17   | 3   | SHSS1/2X5/8X3/8-16Z | Socket Head Shoulder Screws - 1/2 Shldr x 5/8 x 3/8-16 |
| 18   | 1   | TLWHEEL9            | Power Drive Eccentric                                  |
| 19   | 1   | TLWHEEL2012         | Outside Handle Washer                                  |
| 20   | 1   | TLWHEEL2013         | Inside Cam Washer                                      |
| 21   | 1   | TLWHEEL20121        | Inside Handle Washer                                   |

# Gas Tank / Fenders - Up to SN 15R095

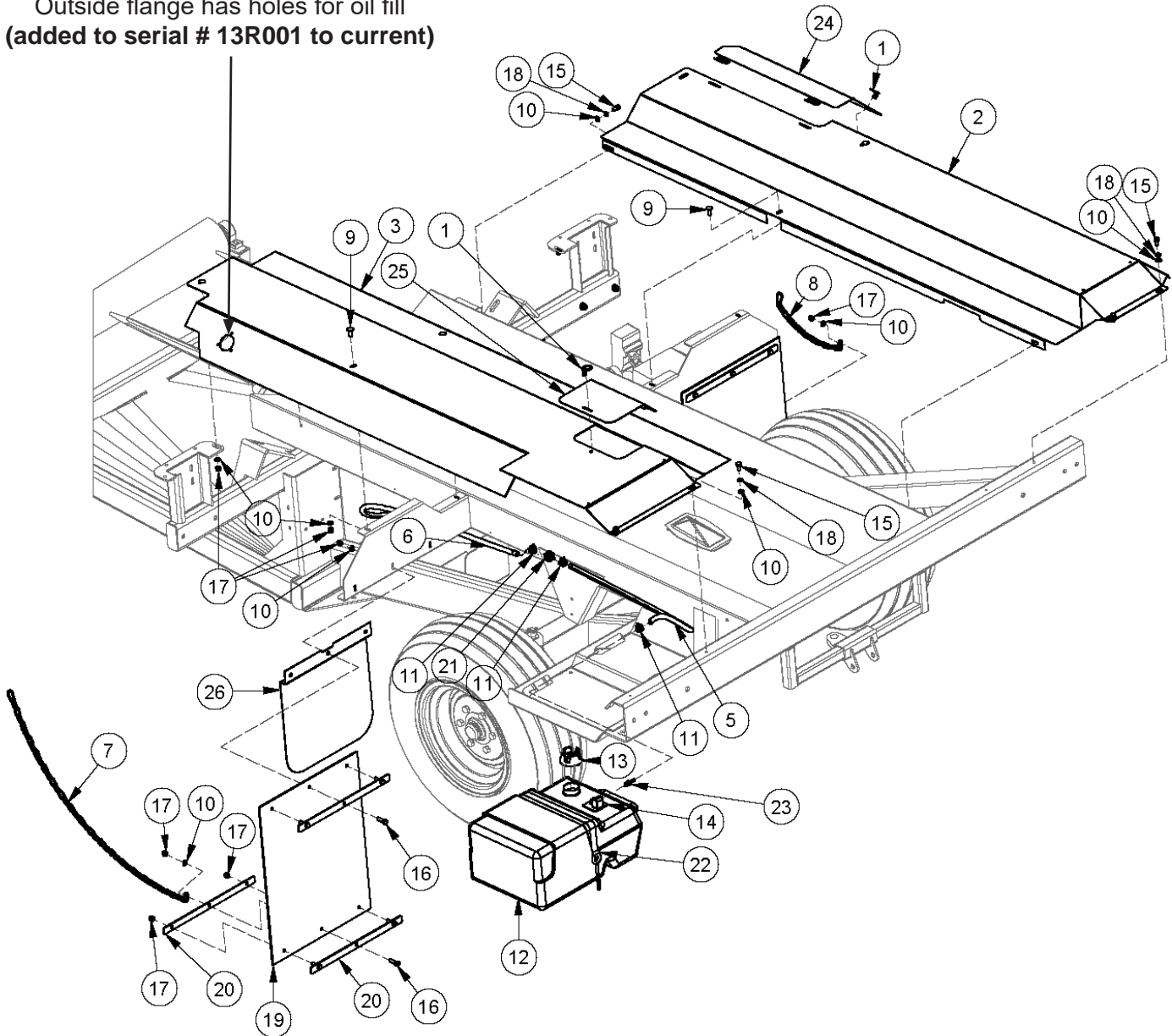


## Gas Tank - Fenders - Up to SN 15R095

| ITEM | QTY | PART #            | DESCRIPTION  |
|------|-----|-------------------|--|
| 1    | 1   | TL5X2-500-145     | Right Fender   |
| 2    | 1   | TL5X2-500-146     | Left Fender  |
| 3    | 1   | TL5X2-500-147     | Engine Cover   |
| 4    | 1   | TL5X2-500-148     | Fuel Cap Cover   |
| 5    | 1   | TL5X2-500-149     | Heat Shield  |
| 6    | 2   | TL550-100-054     | Mud Flap   |
| 7    | 6   | TL500-100-164     | Mud Flap Strap   |
| 8A   |     | TL5X2-500-150     | Fuel Tank c/w Outlet (Ref # 8-13)                            |
| 8    | 1   | TL550-204-100     | Fuel Tank  |
| 9    | 1   | TL550-204-101     | Vented Fuel Tank Cap   |
| 10   | 1   | TL550-204-103     | Fuel Gauge   |
| 11   | 1   | TL5X2-201-108     | Hose Adaptor   |
| 12   | 1   | TL5X2-201-107     | Fuel Line  |
| 13   | 4   | TL550-204-109     | Hose Clamp   |
| 14   | 1   | TL550-200-111     | Fuel Filter  |
| 15   | 1   | TL550-204-110     | Fuel Tank Tie Down Strap                                     |
| 16   | 1   | TLBATSP35         | 12V Battery  |
| 17   | 1   | TL5X2-007-101     | Rubber Battery Pad   |
| 18   | 1   | TL500-301-221     | Battery Hold-Down  |
| 19   | 2   | HB 5/16-18X6.0 Z5 | Hex Bolt - 5/16-18 x 6 Grade 5 Zinc Hex Cap Screw            |
| 20   | 2   | LN 5/16 N         | Locknut - 5/16-18 Type NE Zinc Plated Nylon Insert           |
|      | 6   | HB 5/16-18X1.0 Z5 | Hex Bolt 5/16-18 x 1" Grade 5 Zinc Plated Hex Cap Screw N.C. |
|      | 6   | FW 5/16           | Flatwasher - 5/16" Zinc Plated USS (3840)                    |
|      | 6   | HN 5/16           | Hex Nut 5/16"-18 Grade 5 Zinc Plated Finished Hex Nut N.C.   |
|      |     | 3/16 x 1" Chain   | Mud Flap Chain (Left Side: 11 Links) (Right Side: 34 Links)  |

# Gas Tank / Fenders - SN 15R100 to Current

Outside flange has holes for oil fill  
(added to serial # 13R001 to current)

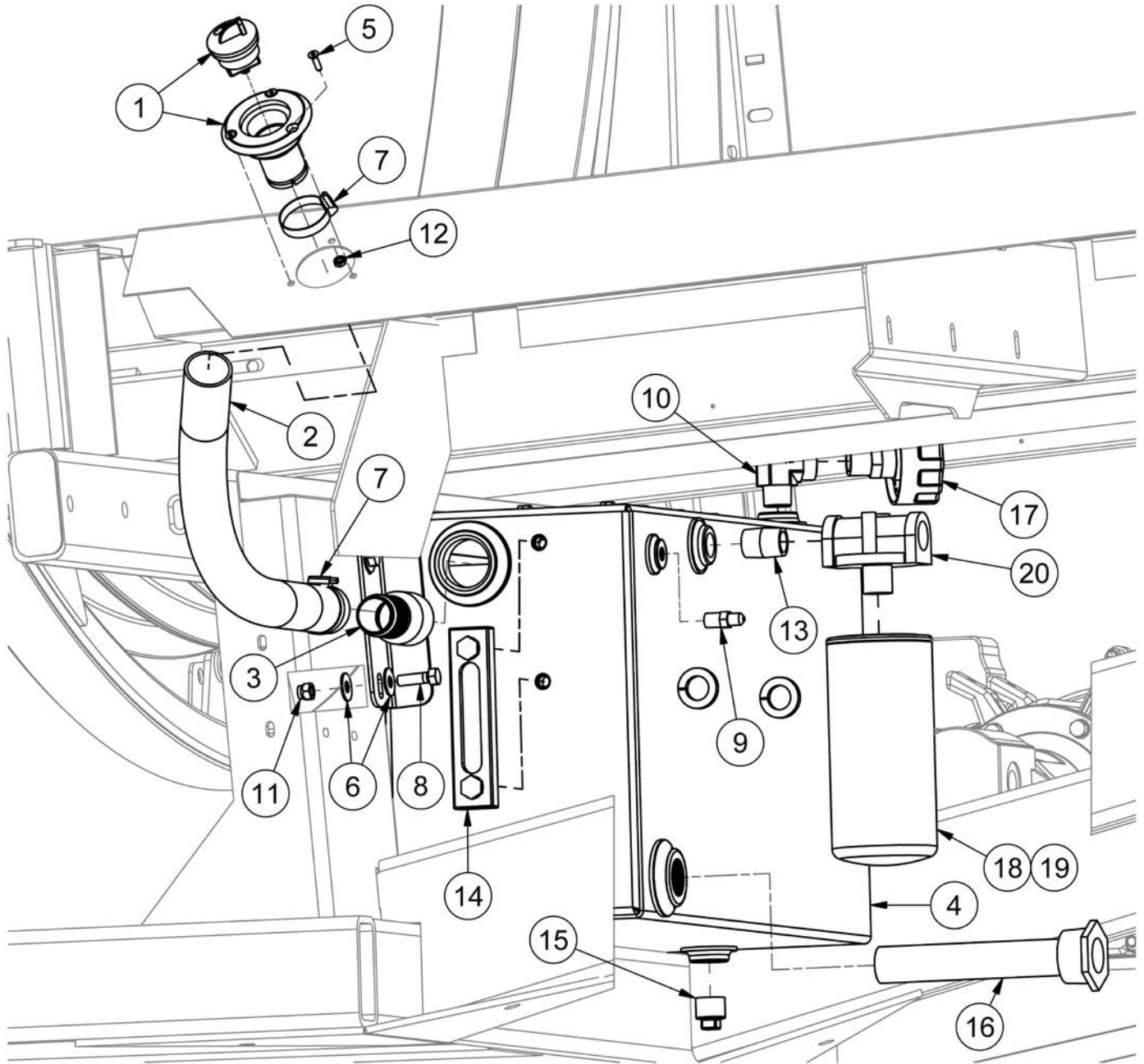


## Gas Tank / Fenders - SN 15R100 to Current

| ITEM | QTY | PART NUMBER        | DESCRIPTION   |
|------|-----|--------------------|---|
| 1    | 2   | 36268              | Cam Lock  |
| 2    | 1   | 36628              | Left Side Fender  |
| 3    | 1   | 36646              | Right Side Fender   |
| 4    | 1   | 38442              | Right Mud Flap Chain  |
| 5    | 1   | 40956              | Short Fuel Line   |
| 6    | 1   | 40957              | Long Fuel Line  |
| 7    | 1   | 40958              | Right Mud Flap Chain  |
| 8    | 1   | 40959              | Right Mud Flap Chain  |
| 9    | 6   | CB 3/8-16X1.0 Z5   | Carriage Bolt - 3/8-16 x 1" Grade 5 Zinc                        |
| 10   | 26  | FW 3/8             | Flatwasher Plated, 3/8" Zinc Plated USS                         |
| 11   | 3   | GC 4               | Gear Clamp #4 .25 to .625"                                      |
| 12   | 1   | TL550-204-100      | Fuel Tank   |
| 13   | 1   | TL550-204-101      | Vented Cap for Fuel Tank  |
| 14   | 1   | TL550-204-103      | Fuel Gauge - Bale Wrapper                                       |
| 15   | 12  | HB 3/8-16X 3/4 Z5  | Hex Bolt - 3/8-16 x 3/4" Grade 5 Zinc Plated Hex Cap Screw N.C. |
| 16   | 16  | HB 3/8-16X1.1/4 Z5 | Hex Bolt 3/8-16 x 1 1/4" Grade 5 Zinc Plated Hex Cap Screw N.C. |
| 17   | 38  | LN 3/8 N           | Locknuts - 3/8-16 Zinc Plated Nylon Insert Lock Nut             |
| 18   | 8   | LW 3/8             | Lockwasher - 3/8" Zinc Plated Medium Split (5500)               |
| 19   | 2   | TL500-100-163      | Mud Flap (3/16 x 18 x 24)                                       |
| 20   | 6   | TL500-100-164      | Metal Strip Mud Flap  |
| 21   | 1   | TL550-200-111      | Fuel Filter   |
| 22   | 1   | TL550-204-110      | Tie Down Strap (Fuel Tank)                                      |
| 23   | 1   | TL5X2-201-108      | 1/4 Barb x 1/4 NPT Fitting                                      |
| 24   | 1   | TL5X2-500-147      | Engine Cover  |
| 25   | 1   | TL5X2-500-148      | Fuel Cap Cover  |
| 26   | 2   | TL5X2-500-149      | Heat Shield   |



# Oil Tank

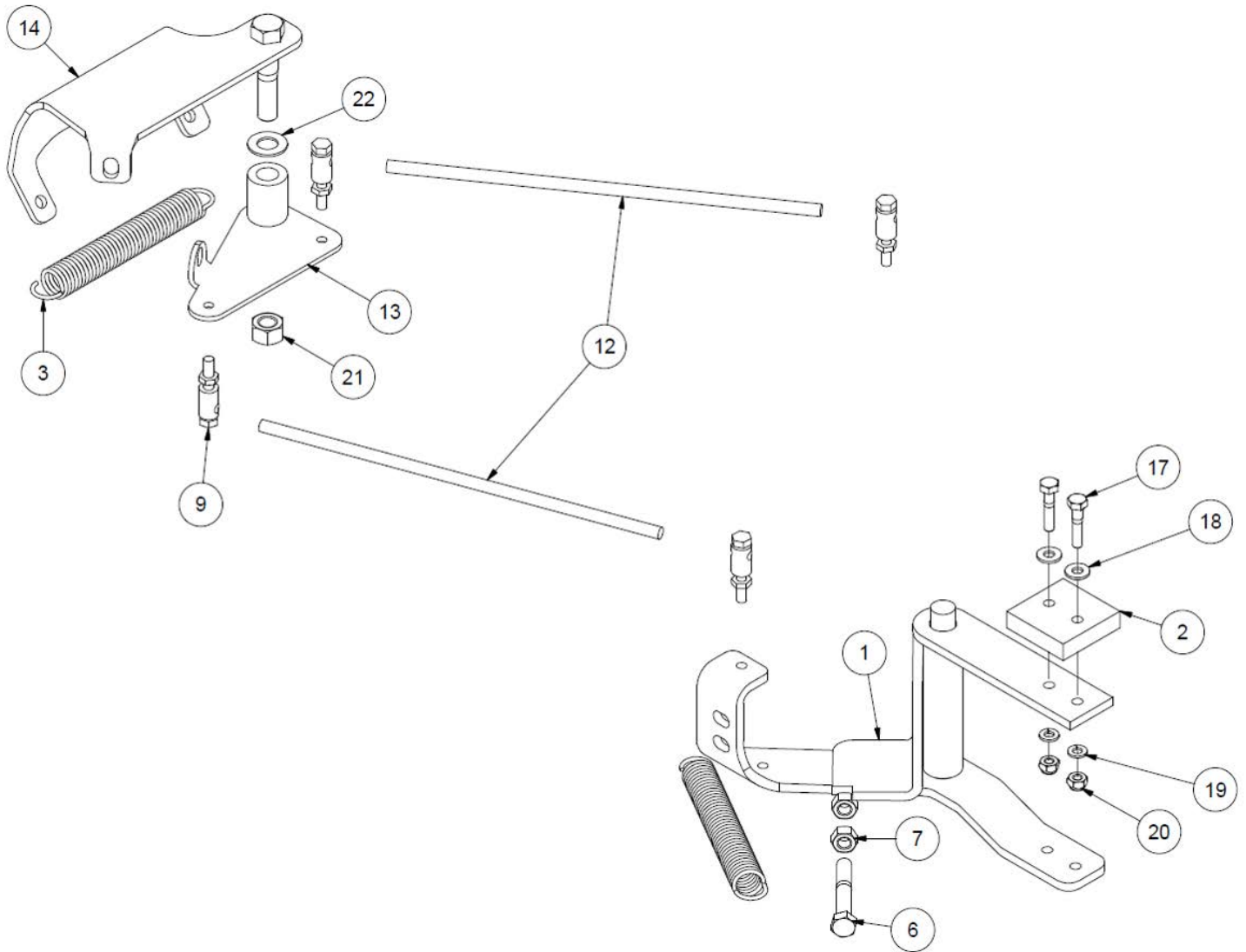


## Oil Tank

Oil in Unit: AW32 Hydraulic Oil

| ITEM | QTY | PART NUMBER         | DESCRIPTION                                      |
|------|-----|---------------------|--|
| 1    | 1   | 30870               | Hydraulic Oil Fill Ass'y                         |
| 2    | 1   | 30883               | TLR5000 Hydraulic Fill Hose                      |
| 3    | 1   | 30894               | Barbed Fitting, 1.5 NPT - 1.5 Barb               |
| 4    | 1   | 31695               | ECV, Wrapper, Hydraulic Oil Tank                 |
| 5    | 3   | FHSCS10-24X0.75     | Hex Bolt - 3/16"-24 x 3/4" Flat Socket Cap Screw |
| 6    | 8   | FW 3/8              | Flatwasher - 3/8" Zinc Plated USS                |
| 7    | 2   | GC 24               | Gear Clamp #24 1" to 2"                          |
| 8    | 4   | HB3/8-16X1.25Z5     | Hex Bolt 3/8-16x1 1/4 Gr 5 Zinc Hex Cap Screw    |
| 9    | 1   | HF 2404-4-4         | Hyd. Fitting - Male JIC - Male Pipe              |
| 10   | 1   | HF 5502-12-12       | Hyd. Fitting - 90 Deg. Elbow 12-12               |
| 11   | 4   | LN3/8-16NCZ5        | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut      |
| 12   | 3   | LN10-24KCZ          | #10-24 Steel Locknut Zinc External Tooth Washer  |
| 13   | 1   | PI 3/4 CLOSE NIPPLE | Close Nipple SCH 80 3/4                          |
| 14   | 1   | TL500-100-171       | Sight Gauge                                      |
| 15   | 1   | TL500-100-174       | Plug, Magnetic 3/4"                              |
| 16   | 1   | TL500-100-175       | Suction Filter/Strainer                          |
| 17   | 1   | VAL HB70-B-8        | HB70-B-8-L-1-NE-G-1-R Filter Breather            |
| 18   | 1   | VAL HEK44-20.180    | ECV Hydraulic Filter                             |
| 19   | 1   | 42733               | High Pressure Filter Replacement Element         |
| 20   | 1   | VAL HF620           | HF620.20-B17-NE-XA-NA-XB-NA Filter Base          |

# Throttle Linkage

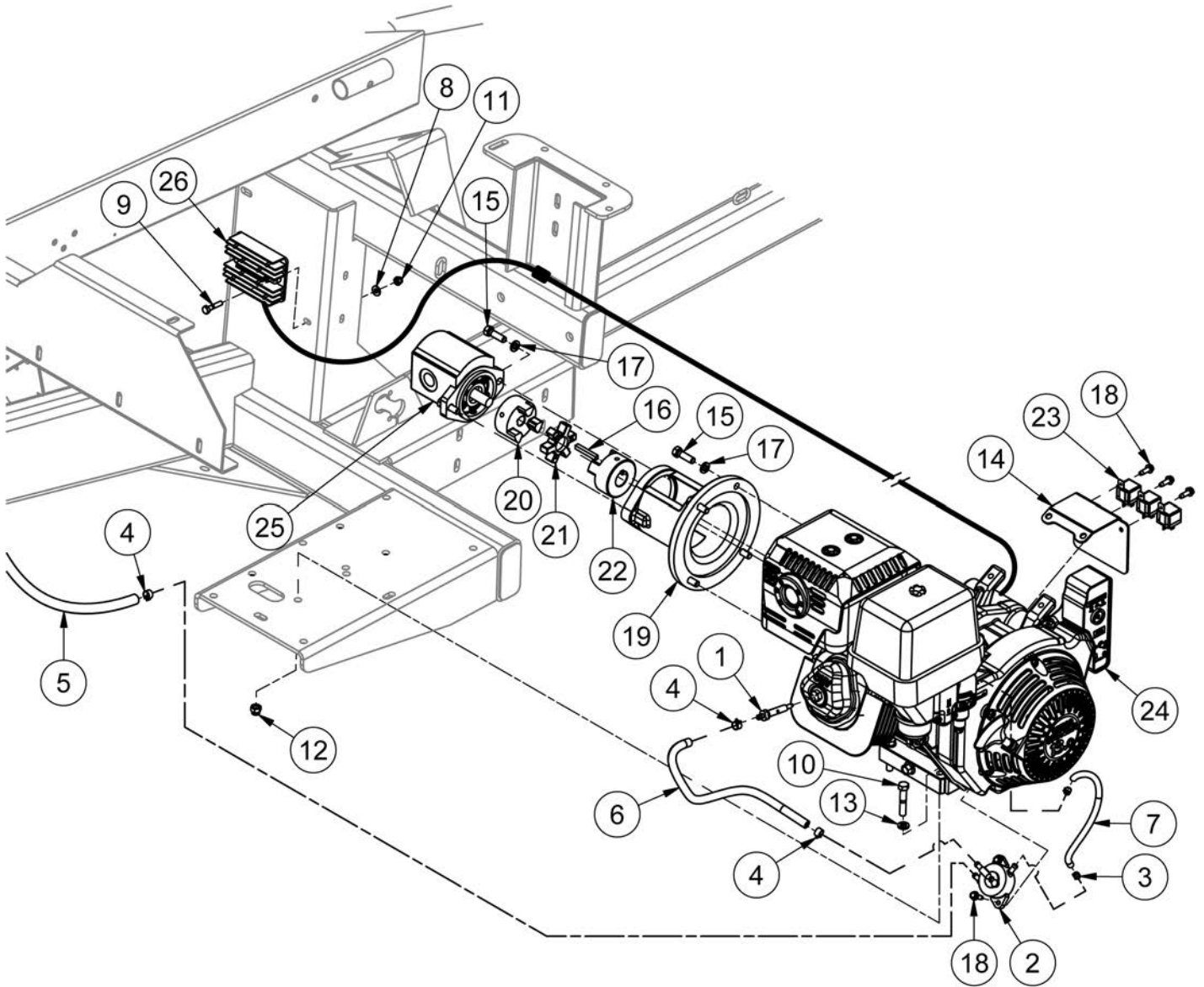


## Throttle Linkage

| ITEM | QTY | PART NUMBER        | DESCRIPTION  |
|------|-----|--------------------|--|
| 1    | 1   | TL5X2-500-154      | Main Link  |
| 2    | 1   | TL5X2-100-232      | Striker Block  |
|      | 1   | TL550-100-069      | Throttle Spring  |
| 4    |     | TL550-100-065      | Ball Joint   |
| 5    | 1   | TL5X2-100-231      | Control Rod  |
| 6    | 2   | HB 3/8-16X2.1/2 Z5 | Hex Bolt 3/8"-16 x 2-1/2" Grade 5 Zinc Plated Hex Cap Screw NC |
| 7    | 2   | HN 3/8             | Hex Nut 3/8"-16 Grade 5 Zinc Plated Finished NC                |
| 8    | 1   | TL599-100-067      | 13 HP Engine Throttle Base                                     |
| 9    |     | TL550-100-067      | Linkage Pivot  |
| 10   | 1   | TL599-100-069      | 1/4-28 UNF Rod x 4   |
| 11   | 1   | TL5X2-100-230      | 13 HP Swing Link   |
| 12   | 2   | TL5X2-500-155      | 1/4-28 UNF Rod x 9 1/2   |
| 13   | 1   | TL5X2-500-156      | 20 HP Swing Link   |
| 14   | 1   | TL6X2-120-001      | 20 HP Engine Throttle Base                                     |
| 15   | 1   | TL6X2-120-004      | 20 HP Control Rod  |
| 16   | 1   | TL5X2-500-157      | 20 HP Main Link  |
| 17   | 2   | HB 1/4-20X1.1/4 Z5 | Hex Bolt - 1/4"-20 x 1-1/4" Grade 5 Zinc Plated Hex Cap Screw  |
| 18   | 2   | FW 1/4             | Flatwasher - 1/4" Zinc Plated USS                              |
| 19   | 2   | LW 1/4             | Lockwasher - 1/4" Zinc Plated Medium Split                     |
| 20   | 2   | HN 1/4             | Hex Nut 1/4"-20 Grade 5 Zinc Plated Finished NC                |
| 21   | 1   | LN 1/4 N           | Locknuts - 1/4-20 Zinc Plated Nylon Insert                     |
| 22   | 1   | FWSAE 1/2          | Flatwasher, 1/2" Zinc Plated SAE                               |

**NOTE:** 17,18,19,and 20 each have 2 items regardless of the linkage used

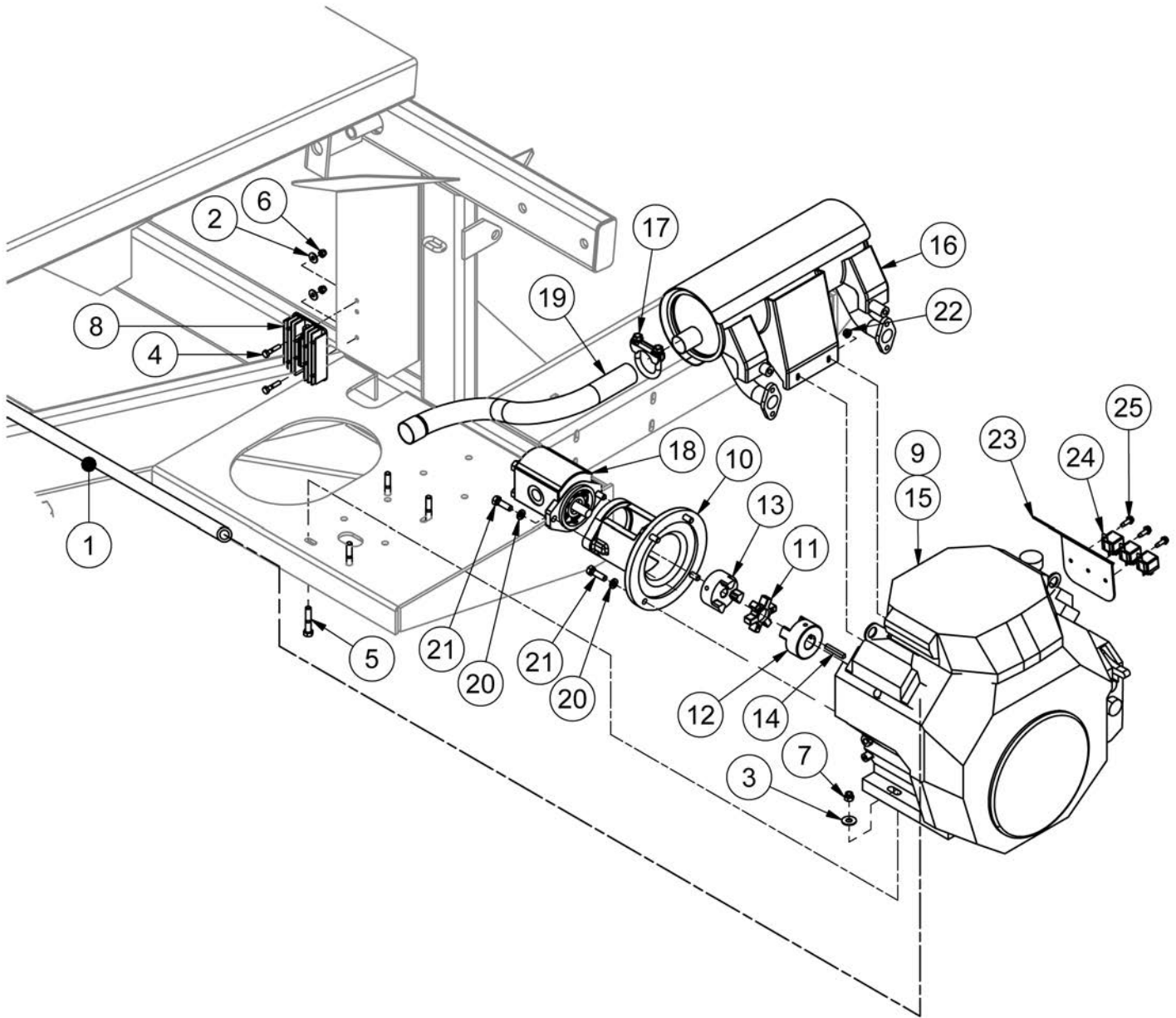
# 13 hp Engine



## 13 hp Engine

| ITEM | QTY | PART NUMBER       | DESCRIPTION  | NOTE |
|------|-----|-------------------|--|------|
| 1    | 1   | 25591             | 13HP Valve Cover Bolt for Fuel Pump                |      |
| 2    | 1   | 25649             | Fuel Pump (Honda #16700Z0J013)                     |      |
| 3    | 2   | 25677             | 5/16 Hose Clamp for Gas Line 3/8                   |      |
| 4    | 3   | 25704             | Gas Line Clamp 1/2"                                |      |
| 5    | 1   | 40957             | Long Fuel Line                                     |      |
| 6    | 1   | 40962             | Piston Discharge Line                              |      |
| 7    | 1   | 40963             | Engine Fuel Line                                   |      |
| 8    | 2   | FW 1/4            | Flatwasher - 1/4" Zinc Plated USS                  |      |
| 9    | 2   | HB1/4-20X1.25Z5   | Hex Bolt 1/4-20x1 1/4 Gr 5 Zinc Hex Cap Screw      |      |
| 10   | 4   | HB3/8-16X2Z5      | Hex Bolt 3/8-16x2 Gr 5 Zinc Hex Cap Screw          |      |
| 11   | 2   | LN1/4-20NCZ5      | LN 1/4-20 Zinc Plated Nylon Insert Lock Nut        |      |
| 12   | 4   | LN3/8-16NCZ5      | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut        |      |
| 13   | 4   | LW 3/8            | LW -3/8" Zinc Plated Medium Split                  |      |
| 14   | 1   | 37779             | 13hp Engine Relay Mount                            |      |
| 15   | 6   | HB3/8-16X1.25Z5   | Hex Bolt 3/8-16x1 1/4 Gr 5 Zinc Hex Cap Screw      |      |
| 16   | 1   | KS40960           | Keystock .250 X 1.750                              |      |
| 17   | 6   | LW 3/8            | LW -3/8" Zinc Plated Medium Split                  |      |
| 18   | 5   | MS 1/4 X 0.75 SDS | 1/4 x 3/4 Hex Washer Head Self Drilling Screw Zinc |      |
| 19   | 1   | TL500-100-182     | Adapter, Engine to Pump                            |      |
| 20   | 1   | TL500-100-183     | Lovejoy Coupling Pump Side                         |      |
| 21   | 1   | TL500-100-184     | Coupling Spacer                                    |      |
| 22   | 1   | TL500-100-185     | Love Joy Coupling Engine Side                      |      |
| 23   | 3   | TL500-100-220     | 35 AMP Relay                                       |      |
| 24   | 1   | TL5X2-100-200     | 13 HP Honda 18 Amp Engine                          |      |
| 25   | 1   | TL5X2-101-181     | Hydraulic Pump (20 HP Engine)                      |      |
| 26   | 1   | TL31620-ZG5-033   | Honda 20 Amp Rectifier                             |      |

# 20 hp Engine

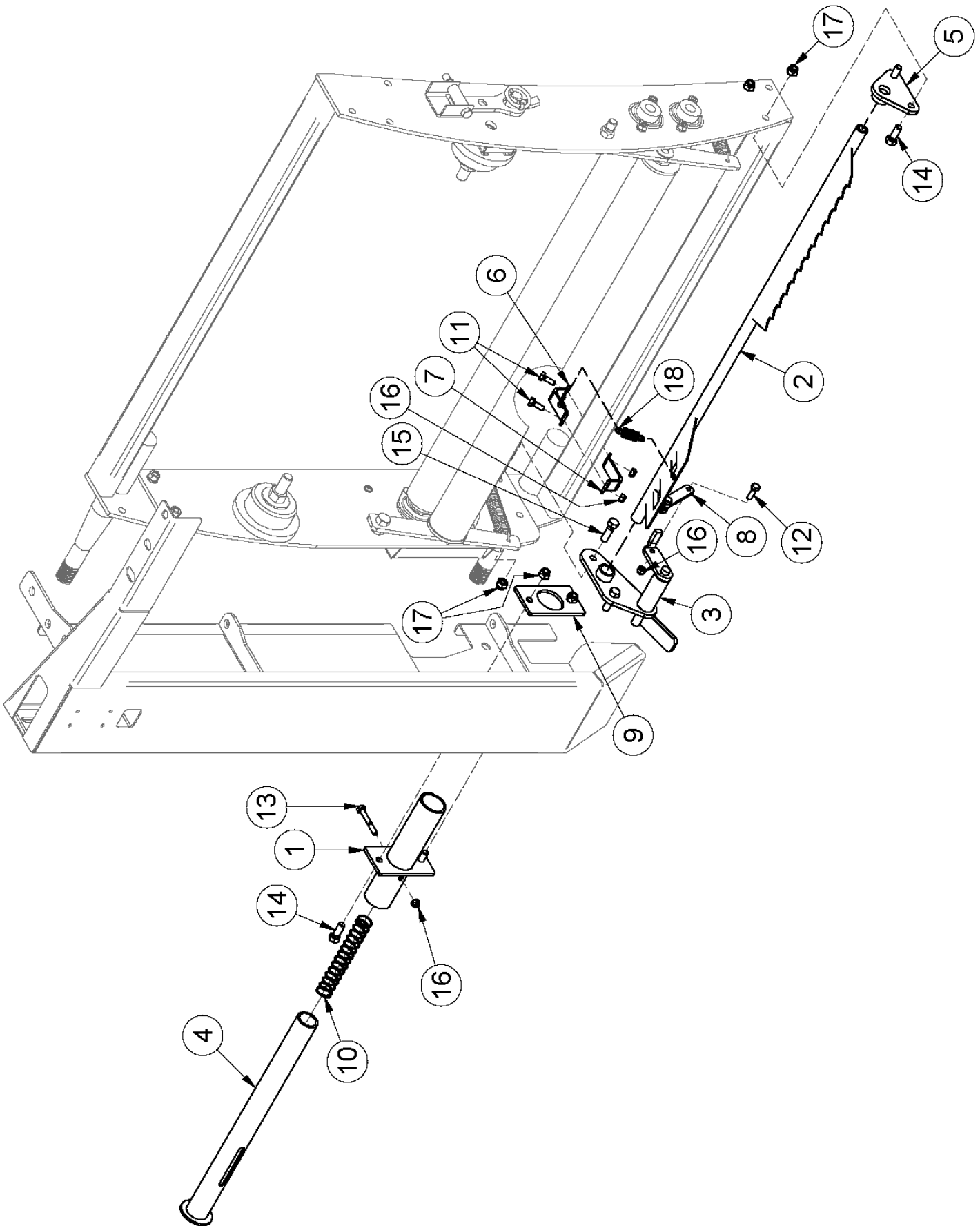


## 20 hp Engine

| ITEM | QTY | PART NUMBER       | DESCRIPTION  | NOTE        |
|------|-----|-------------------|--|-------------|
| 1    | 1   | 40957             | Long Fuel Line                                     |             |
| 2    | 2   | FW 1/4            | Flatwasher - 1/4" Zinc Plated USS                  |             |
| 3    | 4   | FW 3/8            | Flatwasher - 3/8" Zinc Plated USS                  |             |
| 4    | 2   | HB1/4-20X1.25Z5   | Hex Bolt 1/4-20x1 1/4 Gr 5 Zinc Hex Cap Screw      |             |
| 5    | 4   | HB3/8-16X2Z5      | Hex Bolt 3/8-16x2 Gr 5 Zinc Hex Cap Screw          |             |
| 6    | 2   | LN1/4-20NCZ5      | LN 1/4-20 Zinc Plated Nylon Insert Lock Nut        |             |
| 7    | 4   | LN3/8-16NCZ5      | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut        |             |
| 8    | 1   | TL31750-Z2E-803   | Rectifier Honda, GX630 20HP                        |             |
| 9    | 1   | TL20HP-ECV        | 20 HP Honda Engine w/ 16GPM Pump                   | Items 10-25 |
| 10   | 1   | TL500-100-182     | Adapter, Engine to Pump                            |             |
| 11   | 1   | TL500-100-184     | Coupling Spacer                                    |             |
| 12   | 1   | TL500-100-185     | Love Joy Coupling Engine Side                      |             |
| 13   | 1   | TL500-100-183     | Lovejoy Coupling Pump Side                         |             |
| 14   | 1   | KS40960           | Key .25 x 1.75                                     |             |
| 15   | 1   | TL6X2-100-200     | 20 HP Honda Engine                                 |             |
| 16   | 1   | TLVHRM6           | Muffler  |             |
| 17   | 1   | MC 1 1/2          | Muffler Clamp 1 1/2" Pipe (MC7112)                 |             |
| 18   | 1   | 45471             | 16GPM Hydraulic Pump                               |             |
| 19   | 1   | 36945             | 20hp Muffler Pipe                                  |             |
| 20   | 6   | LW 3/8            | LW -3/8" Zinc Plated Medium Split                  |             |
| 21   | 6   | HB3/8-16X1.25Z5   | Hex Bolt 3/8-16x1 1/4 Gr.5 Zinc Hex Cap Screw      |             |
| 22   | 3   | HNC1/4            | Serrated Hex Nut                                   |             |
| 23   | 1   | 37245             | 20HP ECV Engine Relay Mount                        |             |
| 24   | 3   | TL500-100-220     | 35 AMP Relay                                       |             |
| 25   | 3   | MS 1/4 X 0.75 SDS | 1/4 x 3/4 Hex Washer Head Self Drilling Screw Zinc |             |



# Film Snap



## Film Snap

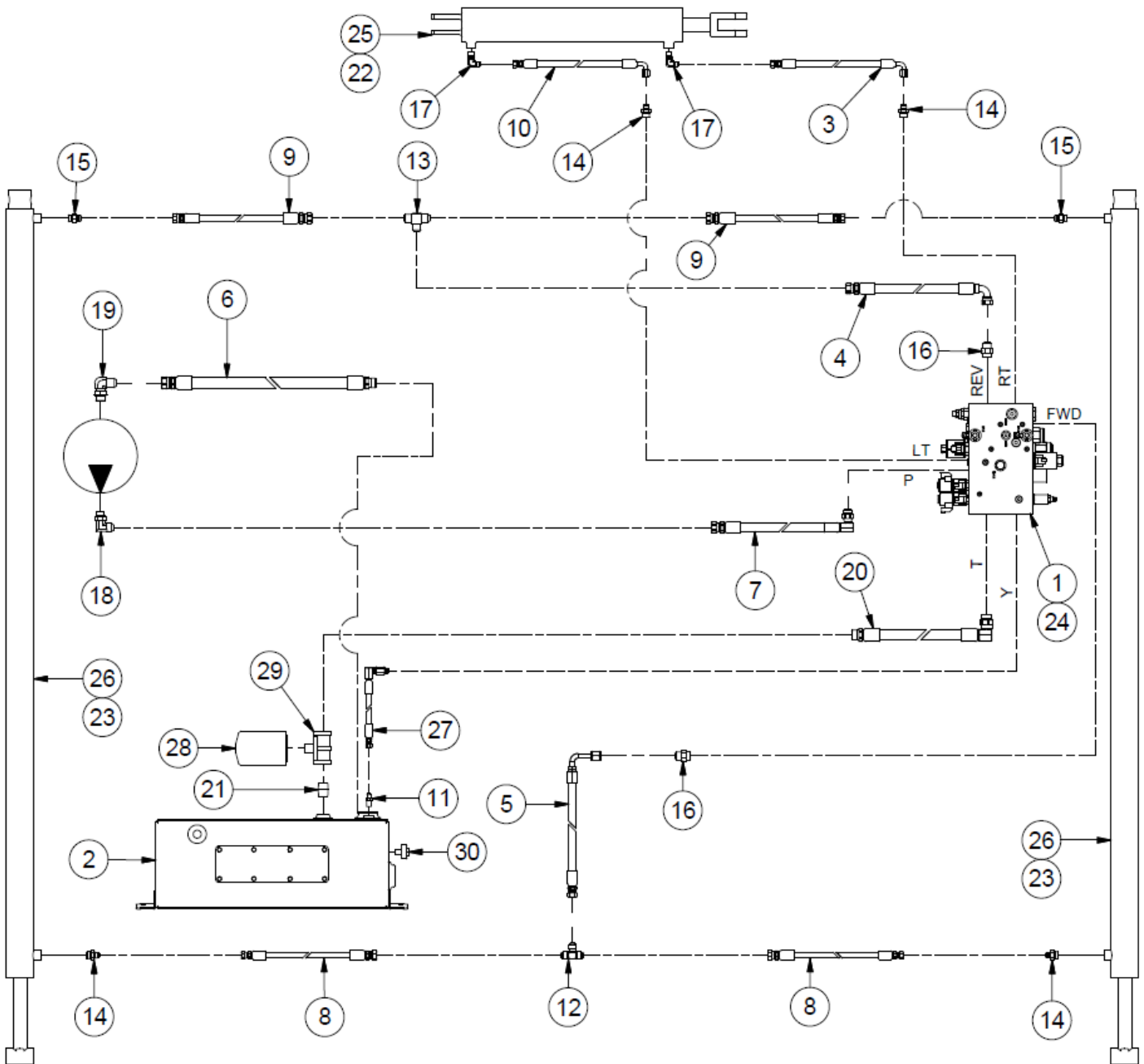
| ITEM | QTY | PART NUMBER        | DESCRIPTION  |
|------|-----|--------------------|--|
| 1    | 1   | 33352              | Wrap Cut Tube Support  |
| 2    | 1   | 33353              | Wrap Cut   |
| 3    | 1   | 33354              | Wrap Cut Swivel  |
| 4    | 1   | 33355              | Cut Push Tube  |
| 5    | 1   | 33356              | Pivot Support Bracket  |
| 6    | 1   | 36021              | Spring Mount   |
| 7    | 1   | 36026              | Bracket For Film Snap  |
| 8    | 1   | 36068              | Swivel Plate   |
| 9    | 1   | 36629              | Pipe Support   |
| 10   | 1   | 36900              | Film Snap Compression Spring                                   |
| 11   | 2   | HB 1/4-20X 3/4 Z5  | Hex Bolt - 1/4"-20 x 3/4" Grade 5 Zinc Plated Hex Cap Screw NC |
| 12   | 2   | HB 1/4-20X1.0 Z5   | Hex Bolt 1/4-20 x 1" Grade 5 Zinc Plated Hex Cap Screw NC      |
| 13   | 1   | HB 1/4-20X2.0 Z5   | Hex Bolt Plated Gr. 5 NC                                       |
| 14   | 4   | HB 3/8-16X1.0 Z5   | Hex Bolt 3/8-16 x 1" Grade 5 Zinc Plated Hex Cap Screw NC      |
| 15   | 2   | HB 3/8-16X1.1/4 Z5 | Hex Bolt 3/8-16 x 1 1/4" Grade 5 Zinc Plated Hex Cap Screw NC  |
| 16   | 5   | LN 1/4 N           | Locknuts - 1/4-20 Zinc Plated Nylon Insert                     |
| 17   | 6   | LN 3/8 N           | Locknuts - 3/8-16 Zinc Plated Nylon Insert                     |
| 18   | 1   | TL500-100-062      | Extension Spring   |

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## Section 3: Hydraulics

**NOTE:** Actual parts may vary from illustrations

# Front Circuits



## Front Circuits

| ITEM | QTY | PART NUMBER         | DESCRIPTION  |
|------|-----|---------------------|--|
| 1    | 1   | 30298               | ECV Bale Wrapper Main Manifold Block                 |
| 2    | 1   | 31695               | ECV, Wrapper, Hydraulic Oil Tank                     |
| 3    | 1   | 31775               | HH78-6AT1(6FJX90S,6FJX) HCL 78"                      |
| 4    | 1   | 31776               | HH61.5-10AT1(10FJX90S,10FJX) HCL61.5"                |
| 5    | 1   | 31777               | HH38-8AT1(10FJX90L,8FJX) HCL 38"                     |
| 6    | 1   | 31779               | HH40-12G4H(12MP,12FJX) HCL40"                        |
| 7    | 1   | 31780               | HH54-10AT1(10MBX90,10FJX) HCL54.0"                   |
| 8    | 2   | 31799               | HH42-6AT1(6FJX,8FJX) HCL 42"                         |
| 9    | 2   | 31938               | HH43-8AT1(10FJX,8FJX) HCL 43"                        |
| 10   | 1   | 32501               | HH95-6AT1(6FJX90L,6FJX) HCL 95"                      |
| 11   | 1   | HF 2404-4-4         | Hydraulic Fitting - Male JIC - Male Pipe             |
| 12   | 1   | HF 2603-8-8-8       | Hydraulic Fitting                                    |
| 13   | 1   | HF 2603-10-10-10    | Hyd Fitting MJIC to MJIC to MJIC                     |
| 14   | 4   | HF 6400-6-8         | Hydraulic Fitting - Male JIC - Male ORB              |
| 15   | 2   | HF 6400-8-8         | Hydraulic Fitting - O-Ring to JIC Adapter            |
| 16   | 2   | HF 6400-10-10       | Hydraulic Fitting - Male JIC - Male ORB              |
| 17   | 2   | HF 6801-6-6         | Hydraulic Fitting - 90 Degree O-Ring to JIC          |
| 18   | 1   | HF 6801-10-10       | Forged Fitting - 5/8" JIC x 5/8" SAE 90 Deg. Elbow   |
| 19   | 1   | HF 6801-12-12       | Forged Fitting - 3/4" JIC X 3/4" SAE 90 Degree Elbow |
| 20   | 1   | 31787               | HH30- 12G4H(12MP,12MBX90) 30HCL                      |
| 21   | 1   | PI .75 CLOSE NIPPLE | Close Nipple Sch 80 3/4                              |
| 22   | 1   | SK AGU201125-10     | Seal Kit   |
| 23   | 2   | SK25                | Seal Kit for Ram Cylinder                            |
| 24   | 1   | SK1031DBSK          | Seal Kit for Main ECV Manifold                       |
| 25   | 1   | TL500-100-103       | Hydraulic Cylinder, 2 x 16                           |
| 26   | 2   | TL550-100-043       | Ram Cylinder   |
| 27   | 1   | TLE101-09           | Hose - HH25-4ATI(4FJXH-6MBX90)25"HCL                 |
| 28   | 1   | VAL HEK44           | HEK44-20-135-AS-SP010-B Filter Element               |
| 29   | 1   | VAL HF620           | HF620.20-B17-NE-XA-NA-XB-NA Filter Base              |
| 30   | 1   | VAL HL91            | HL91-20-T1-T-B Level Gauge                           |

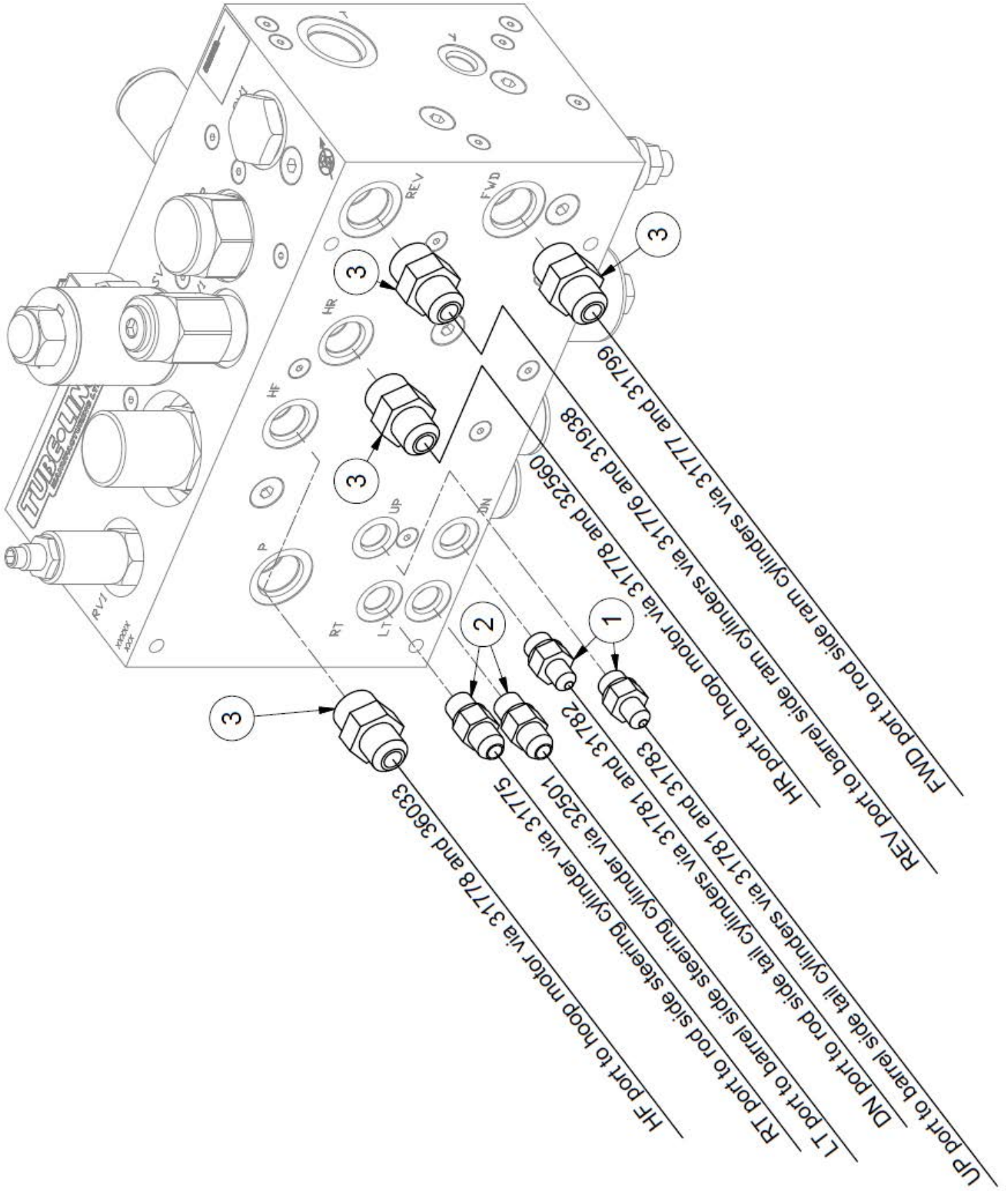


## Rear Circuits

| ITEM | QTY | PART NUMBER             | DESCRIPTION  | NOTE        |
|------|-----|-------------------------|--|-------------|
| 1    | 2   | 31778                   | HH69-8AT1(8FJX90S,8FJX) HCL 69"                              |             |
| 2    | 2   | 31781                   | HH112"-4AT2( 6FJX, 6FJX90S)112"HCL                           |             |
| 3    | 1   | 31782                   | HH68"-4AT2( 6FJX, 6FJX90S)68"HCL                             |             |
| 4    | 1   | 31783                   | HH54"-4AT2(6FJX, 6FJX)54"HCL                                 |             |
| 5    | 1   | 32649                   | ECV Spindown Check Valve Assembly<br>(in Body with Adaptors) | Items 6 - 9 |
| 6    | 1   | 43576                   | CV10-20 Spindown Check Valve Cartridge                       |             |
| 7    | 2   | HF 6400-8-8             | Hydraulic Fitting - O-Ring to JIC Adapter                    |             |
| 8    | 1   | HF 2601-8-8-8           | JIC to Pipe Branch Tee                                       |             |
| 9    | 1   | SK43577                 | CV10-20 Spindown Check Valve Seal Kit                        |             |
| 10   | 1   | 32650                   | HH5 - 8AT1(10MBX90,8FJX) HCL 5"                              |             |
| 11   | 1   | 36033                   | HH10-8AT1(10MBX90,8FJX) HCL 10"                              |             |
| 12   | 2   | 36422                   | Hydraulic Cylinder for TLR5000 Lift Tail                     |             |
| 13   | 2   | SK AGU301250-10         | Seal Kit F/Tail Gate (Cylinder 3.0")                         |             |
| 14   | 1   | HF 6400-4-6             | Hydraulic Fitting - Male JIC - Male ORB                      |             |
| 15   | 2   | HF 6400-6-6             | Hydraulic Fitting - Male JIC - Male ORB                      |             |
| 16   | 2   | HF 6400-8-8             | Hydraulic Fitting - O-Ring to JIC Adapter                    |             |
| 17   | 1   | HF 6602-4-4-4           | Hyd Fitting Run Tee M-JIC/F-JIC-M-JIC                        |             |
| 18   | 2   | HF 6801-4-6             | Hydraulic Fitting - Male JIC - Male ORB 90 Degree            |             |
| 19   | 1   | HF 6804-4-6-4           | Hyd Fitting - Male JIC - Male ORB Tee                        |             |
| 20   | 1   | VAL<br>MLHPQ200C7URS-NE | Hyd. Motor (Hoop Motor) Rear Ported with Sensor              |             |
| 21   | 1   | SKMLHPQUDE              | Seal Kit 400 Motor   |             |
| 22   | 1   | 32665                   | ECV Hoop Speed Sensor  |             |



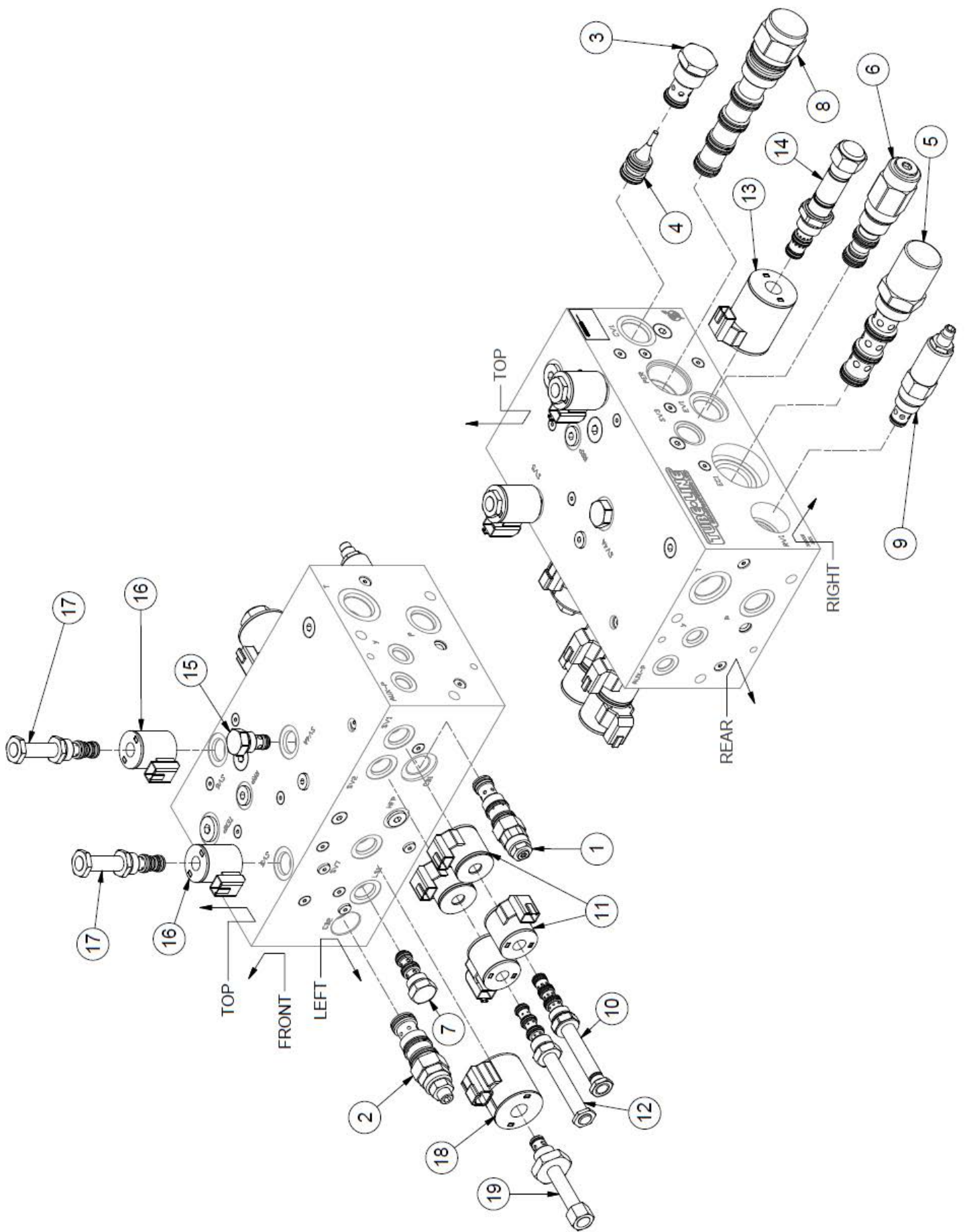
# Manifold Ports



## Manifold Ports

| ITEM | QTY | PART NUMBER  | DESCRIPTION                             |
|------|-----|--------------|---|
| 1    | 2   | HF 6400-4-6  | Hydraulic Fitting - Male JIC - Male ORB |
| 2    | 2   | HF 6400-6-6  | Hydraulic Fitting - Male JIC - Male ORB |
| 3    | 4   | HF 6400-8-10 | Hydraulic Fitting - Male JIC - Male ORB |

# Manifold Valves



## Manifold Valves

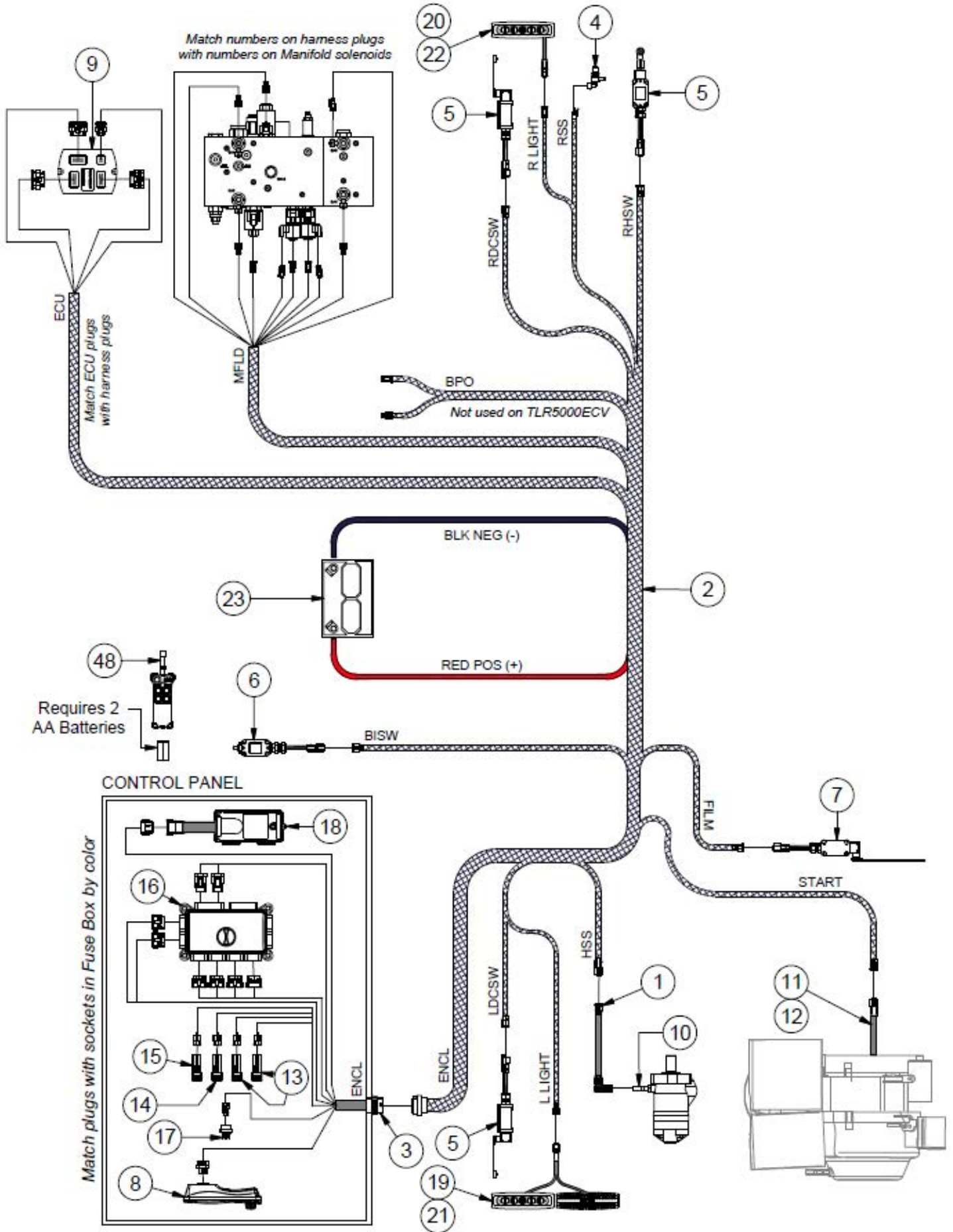
| ITEM | QTY | PORT     | PART NUMBER | DESCRIPTION                       |
|------|-----|----------|-------------|-----------------------------------|
| 1    | 1   | CB1      | 40981       | Counter Balance Valve             |
| 2    | 1   | CB2      | 43664       | Counter Balance Valve             |
| 3    | 1   | CV1      | 43667       | Check Valve                       |
| 4    | 1   | CV1      | 43668       | Pilot Piston                      |
| 5    | 1   | EC1      | 43626       | Cartridge Logic Valve             |
| 6    | 1   | EV1      | 43625       | Cartridge Logic Valve             |
| 7    | 1   | LS1      | 43627       | Shuttle Valve                     |
| 8    | 1   | PER      | 43665       | Directional Valve                 |
| 9    | 1   | RV1      | 43663       | Relief Valve                      |
| 10   | 1   | SV1      | 43669       | Solenoid Valve                    |
| 11   | 4   | SV1, SV2 | 43629       | 12V DC Solenoid Valve Coil        |
| 12   | 1   | SV2      | 32664       | Solenoid Valve                    |
| 13   | 1   | SV3      | 43660       | 12V DC Solenoid Valve Coil        |
| 14   | 1   | SV3      | 43661       | Pilot Flow Control Solenoid Valve |
| 15   | 1   | SV4A     | 43662       | Flow Control Valve                |
| 16   | 2   | SV5,SV6  | 43628       | 12V DC Solenoid Valve Coil        |
| 17   | 2   | SV5,SV6  | 43666       | Pilot Reducing Solenoid Valve     |
| 18   | 1   | SV7      | 43670       | 12V DC Solenoid Valve Coil        |
| 19   | 1   | SV7      | 38784       | Pilot Relief Solenoid Valve       |

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# Section 4: Electrical

**NOTE:** Actual parts may vary from illustrations

# Main Electrical Harness

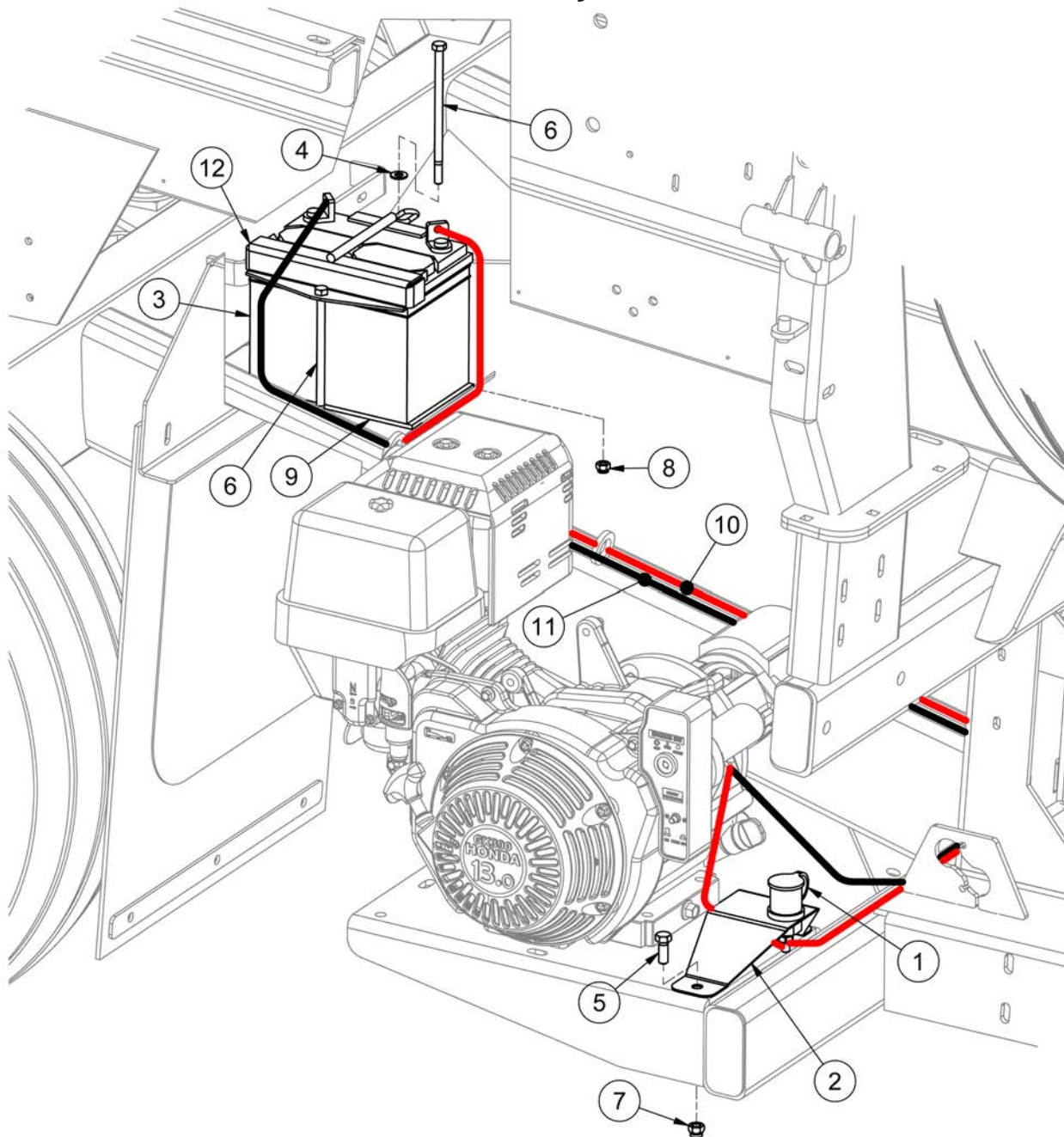


## Main Electrical Harness

| ITEM | QTY | PART NUMBER | DESCRIPTION  |
|------|-----|-------------|--|
| 1    | 1   | 32607       | ECV Wrapper and Liner, M12 to Duetch Jumper              |
| 2    | 1   | 32625       | ECV Wrapper, Main Wiring Harness                         |
| 3    | 1   | 32626       | ECV Wrapper, Panel Harness                               |
| 4    | 1   | 32632       | ECV Wrapper and Liner, Speed Sensor                      |
| 5    | 3   | 32633       | ECV Wrapper, Left and Right Door Switch, Ram Home Switch |
| 6    | 1   | 32634       | ECV Wrapper, Bale Trigger Switch                         |
| 7    | 1   | 32635       | ECV Wrapper, Film Sensor Switch                          |
| 8    | 1   | 32629       | ECV Display Screen                                       |
| 9    | 1   | 32652       | ECV, ECU Programmed for Balewrapper (Current Rev)        |
| 10   | 1   | 32665       | ECV Hoop Speed Sensor                                    |
| 11   | 1   | 32666       | Wiring Engine Harness for 13 HP Honda - ECV Wrapper      |
| 12   | 1   | 32667       | Wiring Engine Harness for 20 HP Honda - ECV Wrapper      |
| 13   | 2   | 33322       | Light Function Switch & Remote Engine By-pass            |
| 14   | 1   | 33322-L     | Function Switch with Light ON-OFF                        |
| 15   | 1   | 33323       | Function Switch for E-Stop                               |
| 16   | 1   | 33324       | Fuse Box for ECV Wrapper Control Box                     |
| 17   | 1   | 33325       | Steering Joystick for ECV                                |
| 18   | 1   | 36968       | Remote Control Reciever & Antenna                        |
| 19   | 1   | 43617       | TLNWLKLED-ECV Twin Harness                               |
| 20   | 1   | 43618       | TLNWLKLED-ECV Single Harness                             |
| 21   | 1   | 43619       | TLNWLK-ECV Twin Harness                                  |
| 22   | 3   | 43620       | TLNWLK-ECV Single Harness                                |
| 23   | 1   | TLBATSP35   | SP-35 Interstate Battery                                 |
| 24   | 1   | TLHHCX2HD   | Hand Held Remote (Orange)                                |

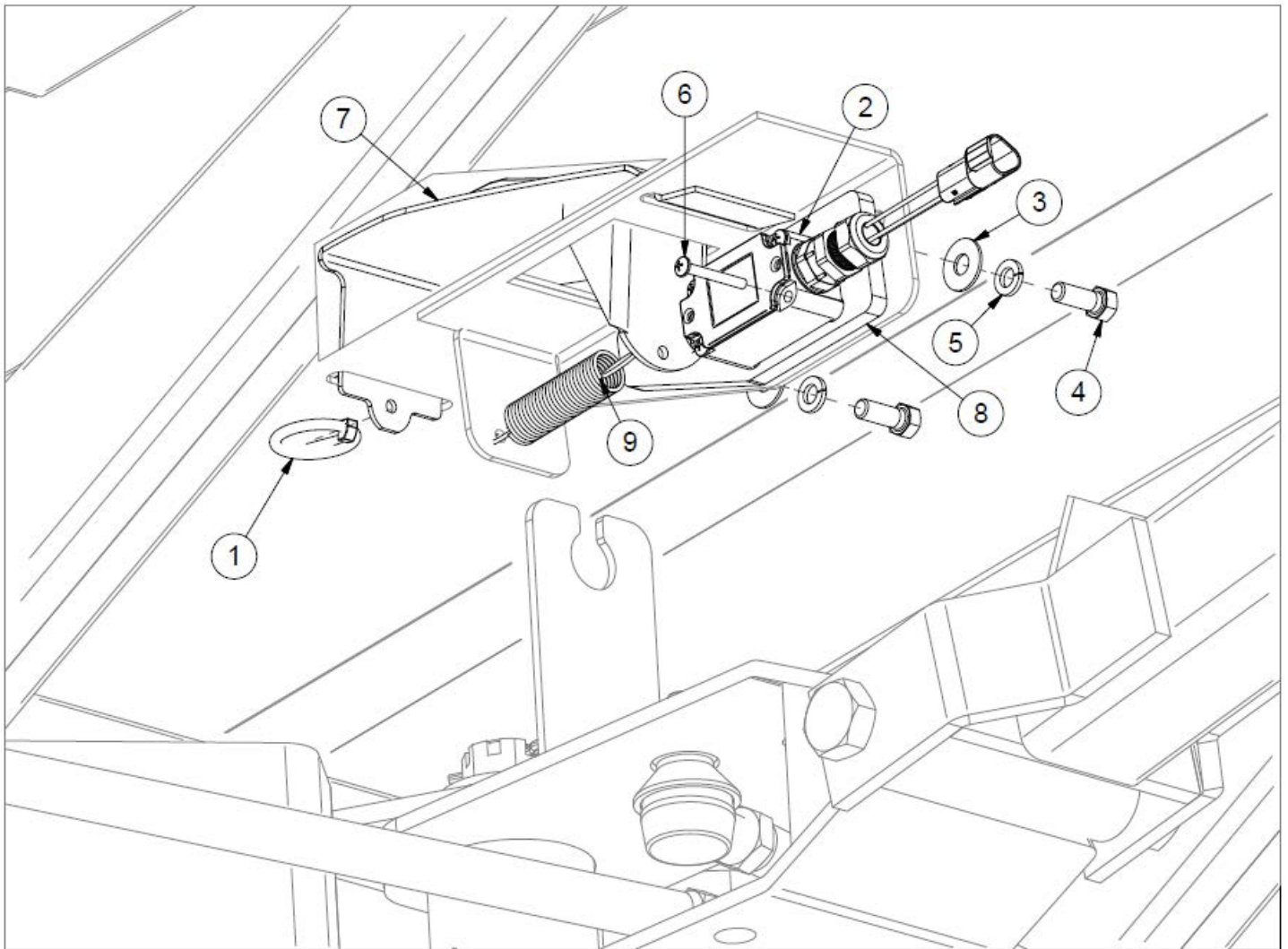


## Battery



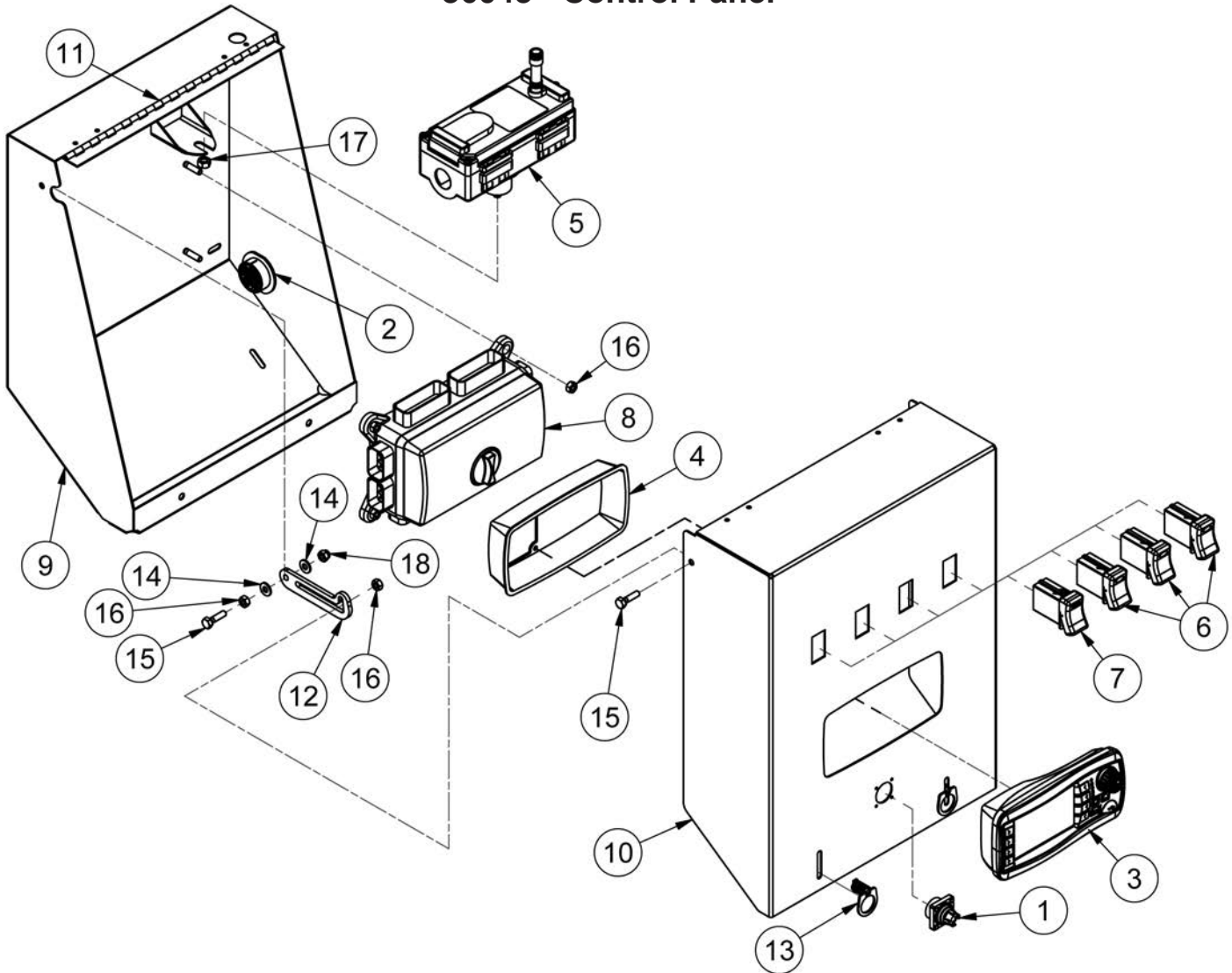
| ITEM | QTY | PART NUMBER     | DESCRIPTION                                  |
|------|-----|-----------------|--|
| 1    | 1   | 30873           | Battery Post                                 |
| 2    | 1   | 31383           | Insulated Jumper Mount                       |
| 3    | 1   | 45924           | SP-40 Battery                                |
| 4    | 1   | FW 5/16         | Flatwasher - 5/16" Zinc Plated USS           |
| 5    | 2   | HB3/8-16X1Z5    | Hex Bolt 3/8-16x1 Gr 5 Zinc Hex Cap Screw    |
| 6    | 2   | HB 5/16-18X6 Z5 | Hex Bolt 5/16-18x6 Gr 5 Zinc Hex Cap Screw   |
| 7    | 2   | LN3/8-16NCZ5    | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut  |
| 8    | 2   | LN5/16-18NCZ5   | LN 5/16-18 Zinc Plated Nylon Insert Lock Nut |
| 9    | 1   | TL5X2-007-101   | Battery Rubber, 3/16 x 5 x 8 Mud Flap        |
| 10   | 1   | TL5X2-500-159   | Red Battery Cable                            |
| 11   | 1   | TL5X2-500-160   | Black Battery Cable                          |
| 12   | 1   | TL500-301-221   | Battery Hold-Down                            |

## Table Trigger



| ITEM | QTY | PART NUMBER    | DESCRIPTION   |
|------|-----|----------------|---|
| 1    | 1   | 25680          | Lynch Pin 3/16 x 1.5                                |
| 2    | 1   | 32634          | ECV Wrapper, Bale Trigger Switch                    |
| 3    | 2   | FW 3/8         | Flatwasher - 3/8" Zinc Plated USS                   |
| 4    | 2   | HB 3/8-16X1 Z5 | Hex Bolt 3/8-16x1 Grade 5 Zinc Plated Hex Cap Screw |
| 5    | 2   | LW 3/8         | LW - 3/8" Zinc Plated Medium Split                  |
| 6    | 4   | MS #10X24X1.5  | Machine Screw - (Inch)                              |
| 7    | 1   | TL5X2-500-152  | Trigger Weldment                                    |
| 8    | 1   | TL5X2-500-153  | Table Switch Mount Plate                            |
| 9    | 1   | TL550-100-069  | Throttle Spring                                     |

## 36043 - Control Panel

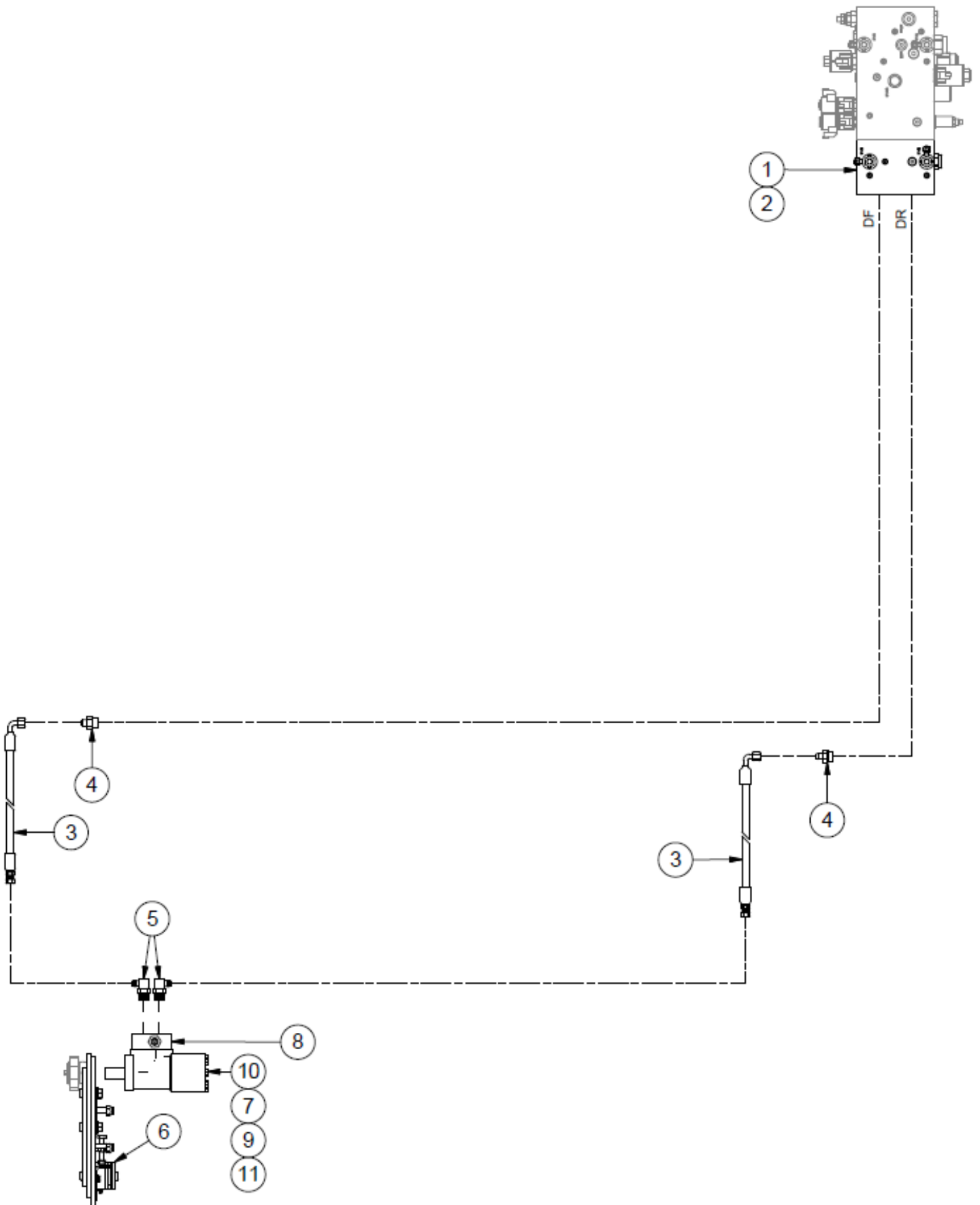


| ITEM | QTY | PART NUMBER  | DESCRIPTION                                   |
|------|-----|--------------|---|
| 1    | 1   | 32624        | ECV, Thumbstick Power Drive & Steering        |
| 2    | 1   | 32626        | ECV Wrapper, Panel Harness                    |
| 3    | 1   | 32629        | ECV Display Screen                            |
| 4    | 1   | 32630        | ECV Wrapper, Dashboard Mount                  |
| 5    | 1   | 32648        | Remote Receiver (ECV Wrapper)                 |
| 6    | 3   | 33322        | Light Function Switch & Remote Engine By-pass |
| 7    | 1   | 33323        | Function Switch for E-Stop                    |
| 8    | 1   | 33324        | Fuse Box for ECV Wrapper Control Box          |
| 9    | 1   | 35610        | Control Panel Box                             |
| 10   | 1   | 36044        | ECV Control Panel Face                        |
| 11   | 2   | 35633        | ECV Control Panel Piano Hinge                 |
| 12   | 1   | 35637        | Control Panel Link                            |
| 13   | 2   | 36268        | Cam Lock                                      |
| 14   | 4   | FW 1/4       | Flatwasher - 1/4" Zinc Plated USS             |
| 15   | 2   | HB1/4-20X1Z5 | Hex Bolt 1/4-20x1 Grade 5 Zinc Hex Cap Screw  |
| 16   | 6   | HN1/4-20CZ5  | Hex Nut 1/4"-20 Grade 5 Zinc Finished         |
| 17   | 1   | HN5/16-18CZ5 | Hex Nut 5/16"-18 Grade 5 Zinc Finished        |
| 18   | 2   | LN1/4-20NCZ5 | LN 1/4-20 Zinc Plated Nylon Insert Lock Nut   |

## Section 5: Optional Features

**NOTE:** Actual parts may vary from illustrations

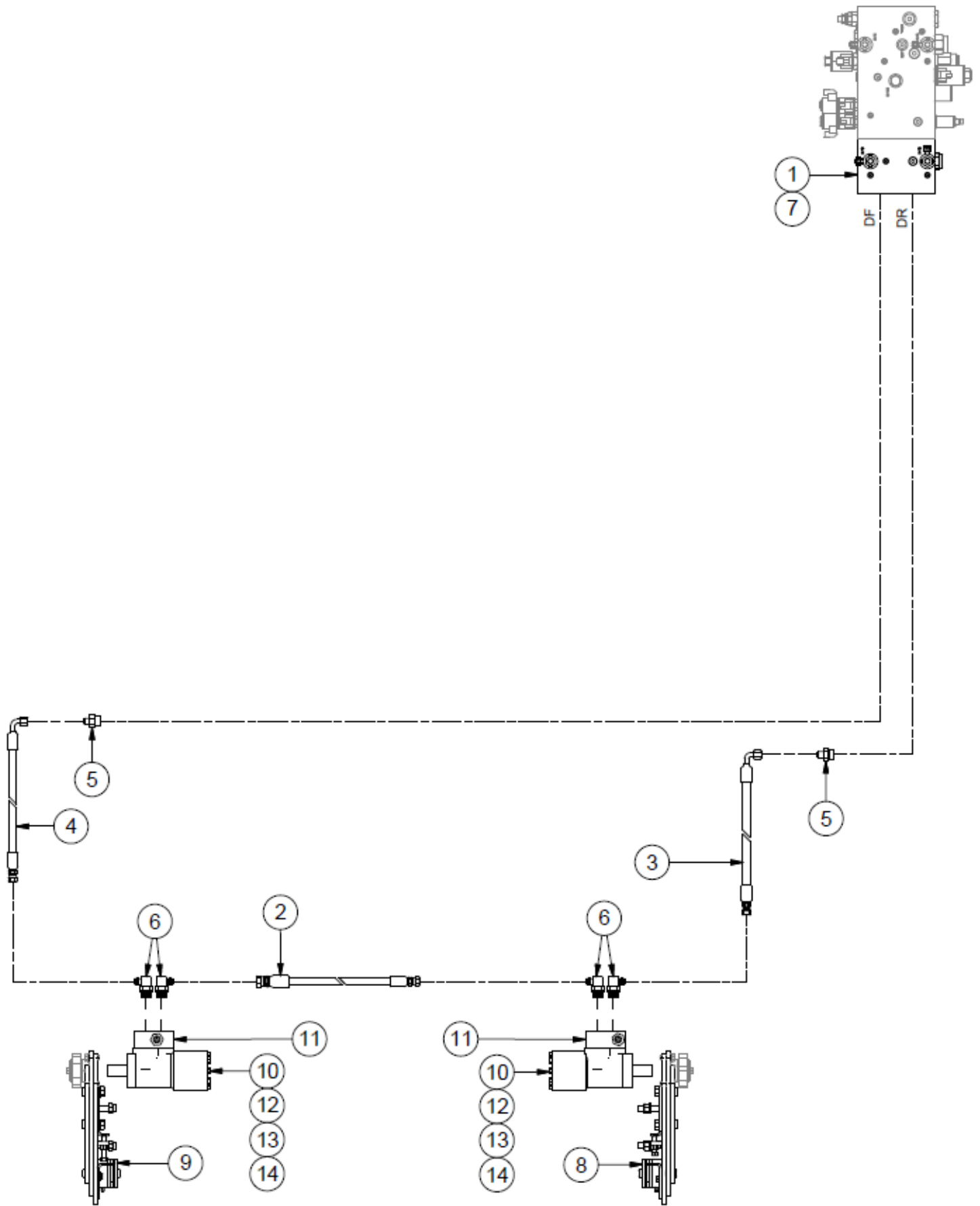
# TLHPD5000ECV - Single Power Drive



## TLHPD5000ECV - Single Power Drive

| ITEM | QTY | PART NUMBER              | DESCRIPTION                                       | NOTE             |
|------|-----|--------------------------|---|------------------|
| 1    | 1   | 30299                    | ECV Bale Wrapper Powerdrive Block                 |                  |
| 2    | 1   | SK1032AASK               | ECV Powerdrive Manifold Seal Kit                  |                  |
| 3    | 2   | 31785                    | HH156 - 6AT1-(6FJXH-6FJX90S)-HCL-156 Hose Assy.   |                  |
| 4    | 2   | HF 6400-6-10             | Hyd Fitting -Male JIC - Male ORB                  |                  |
| 5    | 2   | HF 6801-6-10             | Hyd. Fitting -Male JIC - Male ORB 90 Degree Elbow |                  |
| 6    | 1   | TL109-100-360            | Power Drive Assembly                              | Refer to Pg.2-36 |
| 7    | 1   | TL550-200-138            | Hydraulic Motor c/w Crossover                     | Items 8-11       |
| 8    | 1   | 30856                    | Hydraulic Cross Port Relief for Motor- Spreaders  |                  |
| 9    | 4   | HB 5/16-18X1.1/2<br>SHCS | Hex Bolt - 5/16-18 x 1 1/2" Socket Head Cap Screw |                  |
| 10   | 1   | VAL 1008                 | Motor, Hydraulic - (BS208107A)                    |                  |
| 11   | 1   | SKMLHPQUDE               | Seal Kit 400 Motor                                |                  |

# TLHPDD5000ECV - Dual Power Drive Hydraulics



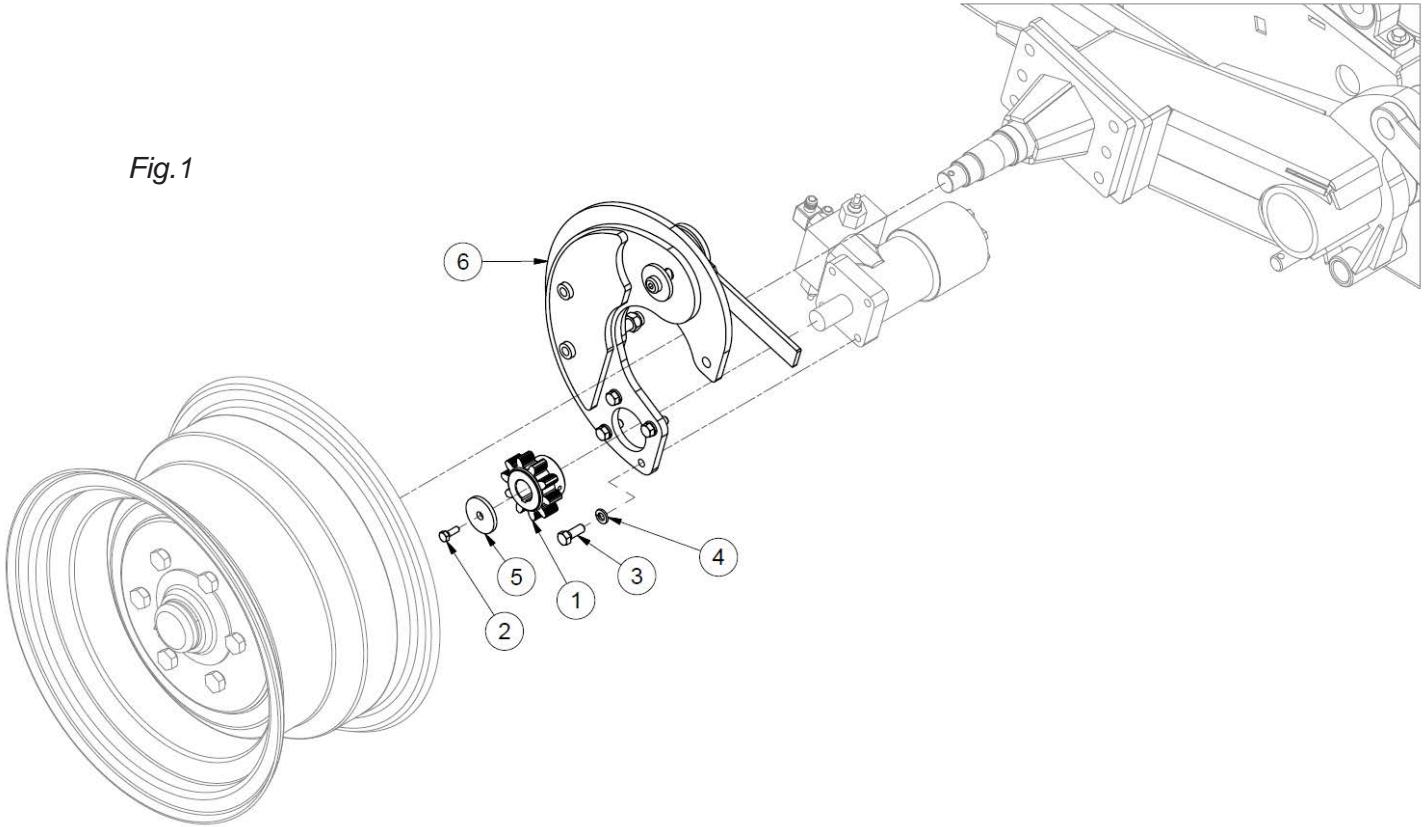
## TLHPDD5000ECV - Dual Power Drive Hydraulics

| ITEM | QTY | PARTNUMBER               | DESCRIPTION                                       | NOTE             |
|------|-----|--------------------------|---|------------------|
| 1    | 1   | 30299                    | ECV Bale Wrapper Powerdrive Block                 |                  |
| 2    | 1   | 31784                    | HH93 - 6ATI(6FJX,6FJX) 93" E/E                    |                  |
| 3    | 1   | 31785                    | HH156 - 6AT1-(6FJXH-6FJX90S)-HCL-156 Hose Assy.   |                  |
| 4    | 1   | 31786                    | HH203 - 6AT1-(6FJXH-6FJX90S)-HCL-203 Hose Assy.   |                  |
| 5    | 2   | HF 6400-6-10             | Hyd Fitting -Male JIC - Male ORB                  |                  |
| 6    | 4   | HF 6801-6-10             | Hyd. Fitting -Male JIC - Male ORB 90 Degree Elbow |                  |
| 7    | 1   | SK1032AASK               | ECV Powerdrive Manifold Seal Kit                  |                  |
| 8    | 1   | TL109-100-355            | Power Drive Assembly                              | Refer to Pg.5-6  |
| 9    | 1   | TL109-100-360            | Power Drive Assembly                              | Refer to Pg.2-34 |
| 10   | 2   | TL550-200-138            | Hydraulic Motor c/w Crossover                     | Items 11-14      |
| 11   | 1   | 30856                    | Hydraulic Cross Port Relief for Motor- Spreaders  |                  |
| 12   | 4   | HB 5/16-18X1.1/2<br>SHCS | Hex Bolt - 5/16-18 x 1 1/2" Socket Head Cap Screw |                  |
| 13   | 1   | VAL 1008                 | Motor, Hydraulic - (BS208107A)                    |                  |
| 14   | 2   | SKMLHPQUDE               | Seal Kit 400 Motor                                |                  |



# Single Power Drive Assembly

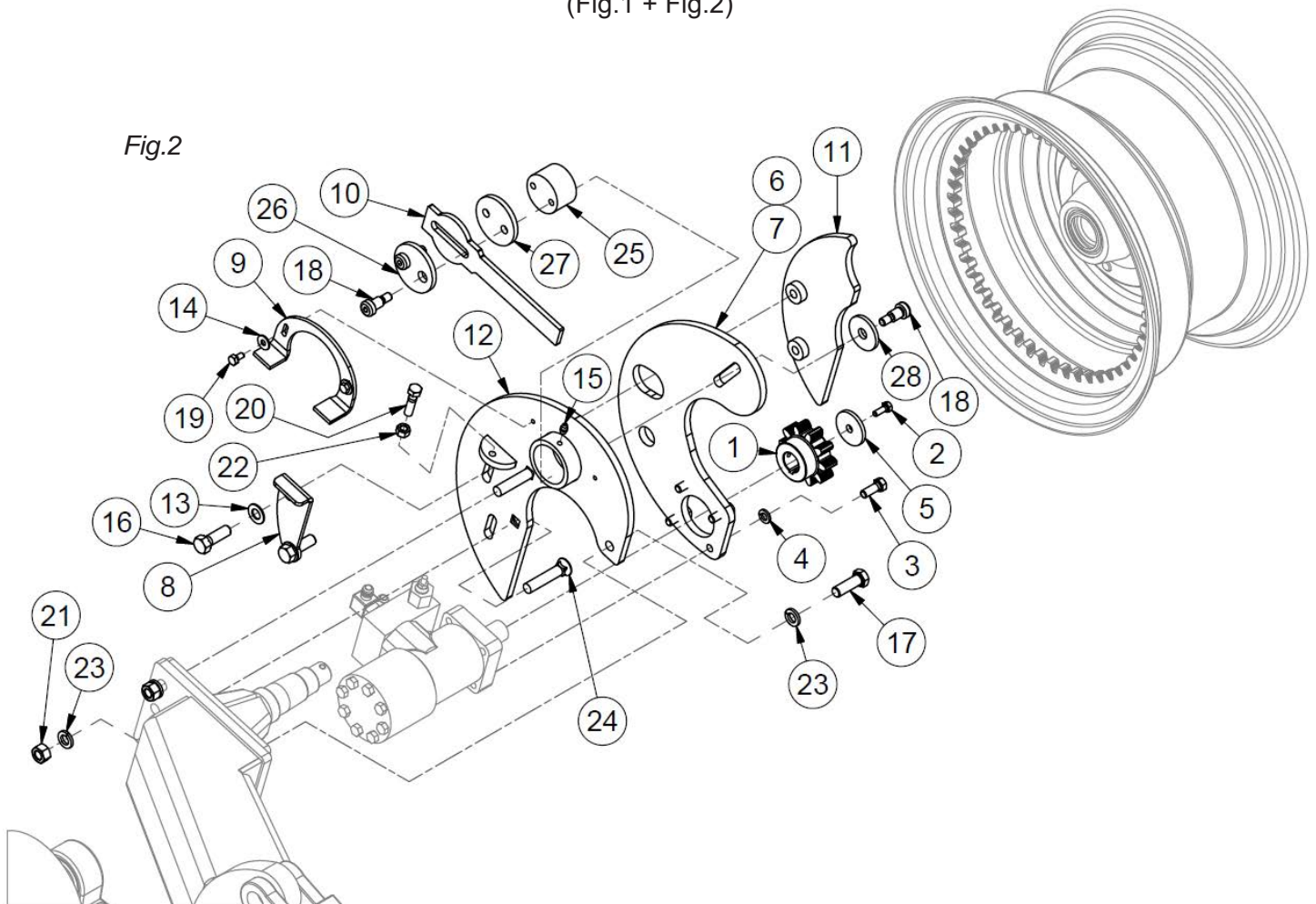
Fig.1



# Dual Power Drive Assembly

(Fig.1 + Fig.2)

Fig.2



## Single Power Drive Assembly

Fig.1

| ITEM | QTY | PART NUMBER       | DESCRIPTION   | NOTE             |
|------|-----|-------------------|---|------------------|
| 1    | 1   | 28772             | Power Drive Sprocket 2009 UP                          |                  |
| 2    | 1   | HB 1/4-20X0.75 Z5 | Hex Bolt 1/4-20x3/4 Grade 5 Zinc Plated Hex Cap Screw |                  |
| 3    | 4   | HB 3/8-16X1 Z5    | Hex Bolt 3/8-16x1 Grade 5 Zinc Plated Hex Cap Screw   |                  |
| 4    | 4   | LW 3/8            | LW - 3/8" Zinc Plated Medium Split                    |                  |
| 5    | 1   | TL500-100-060     | Wheel Hub Washer                                      |                  |
| 6    | 1   | TL109-100-360     | Brake Assembly  | Refer to Pg.2-34 |

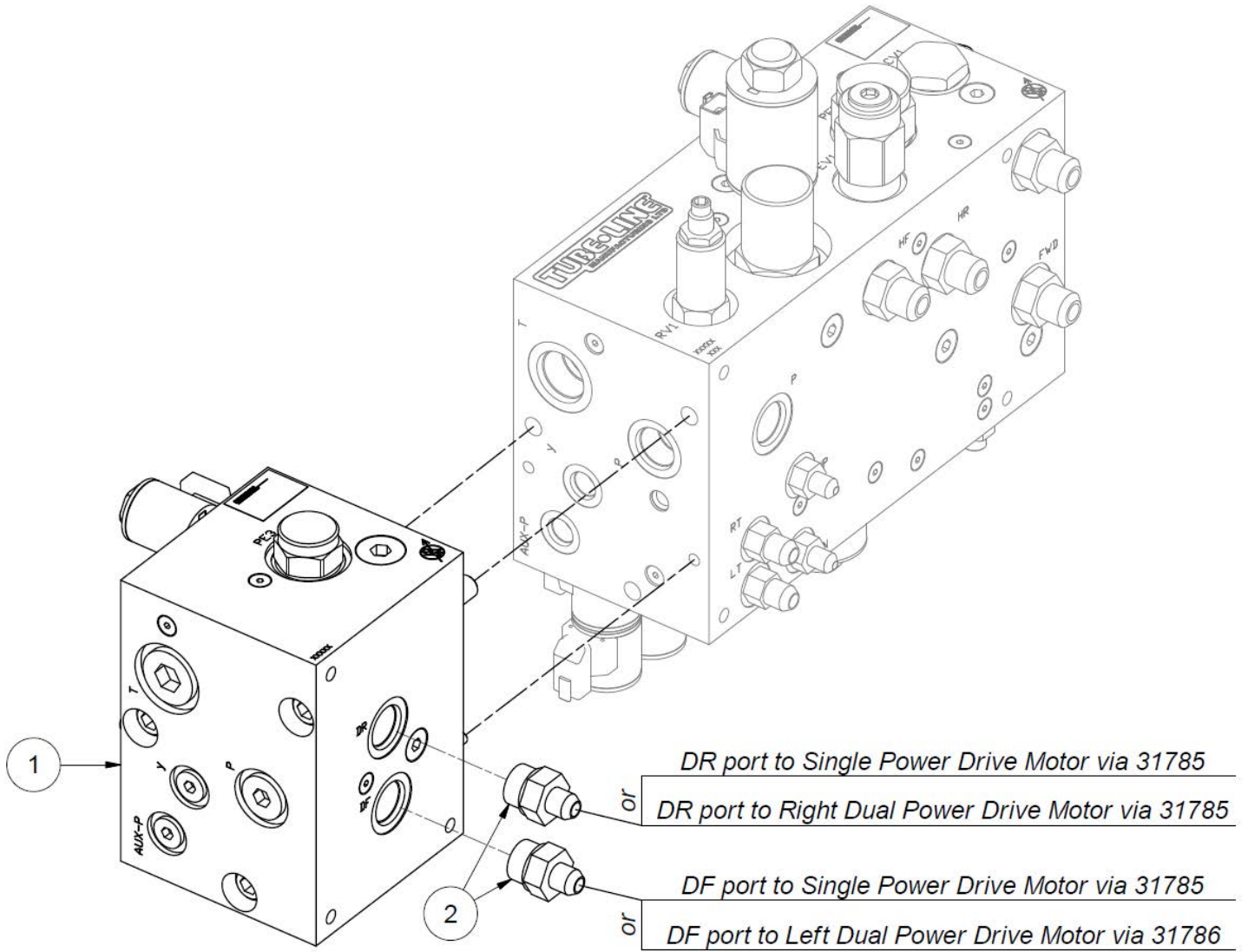
## Dual Power Drive Assembly

(Fig.1 + Fig.2)

Fig.2

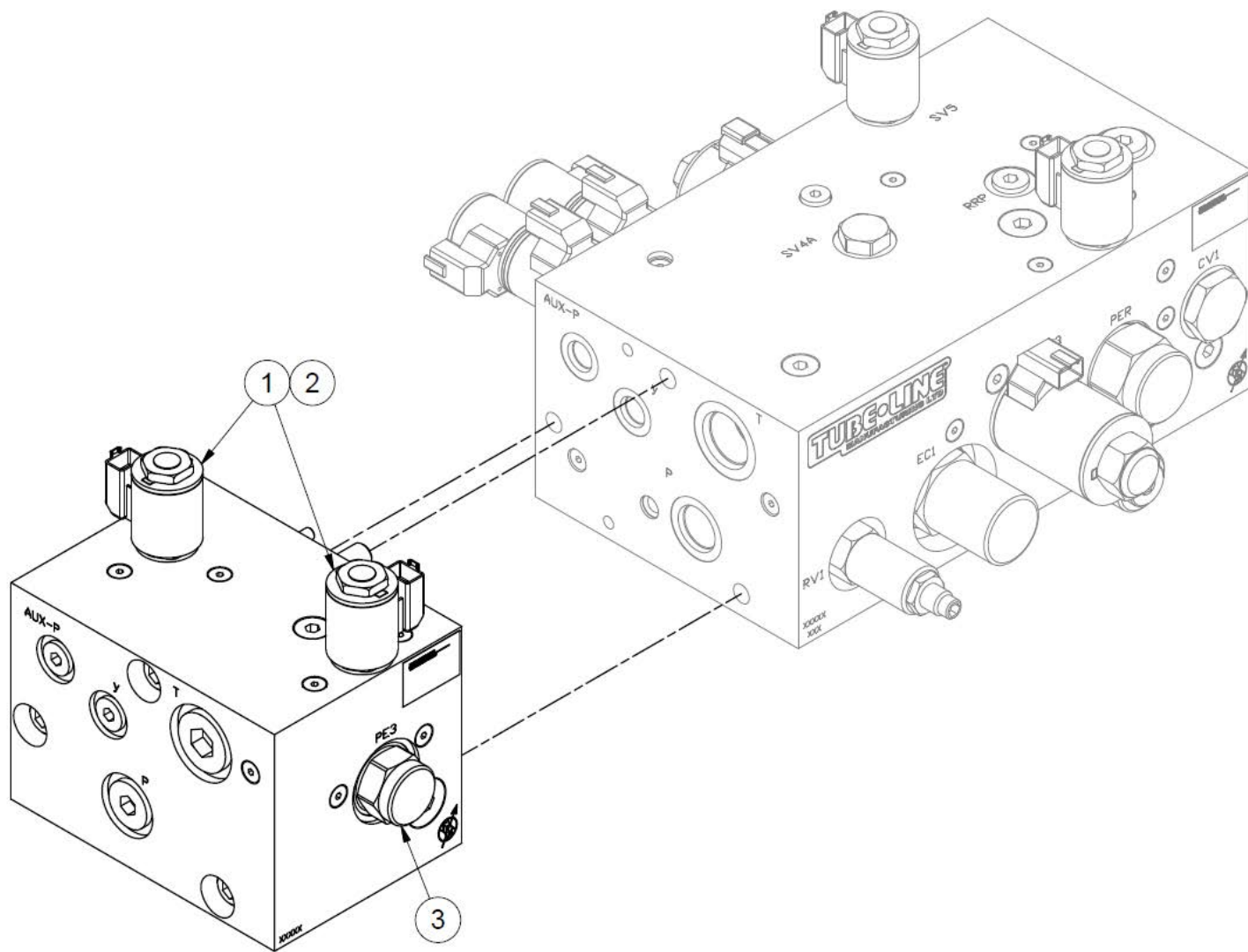
| ITEM | QTY | PART NUMBER        | DESCRIPTION   | NOTE       |
|------|-----|--------------------|---|------------|
| 1    | 2   | 28772              | Power Drive Sprocket 2009 UP                            |            |
| 2    | 2   | HB 1/4-20X0.75 Z5  | Hex Bolt 1/4-20x3/4 Grade 5 Zinc Plated Hex Cap Screw   |            |
| 3    | 2   | HB 3/8-16X1 Z5     | Hex Bolt 3/8-16x1 Grade 5 Zinc Plated Hex Cap Screw     |            |
| 4    | 24  | LW 3/8             | LW - 3/8" Zinc Plated Medium Split                      |            |
| 5    | 2   | TL500-100-060      | Wheel Hub Washer  |            |
| 6    | 1   | TL109-100-355      | Power Drive Assembly                                    | Items 7-28 |
| 7    | 1   | 25116              | Drive Engaging Plate                                    |            |
| 8    | 1   | 25119              | Outside Plate Guide                                     |            |
| 9    | 1   | 25121              | Handle Lock   |            |
| 10   | 1   | 25122              | Handle  |            |
| 11   | 1   | 25123              | Bolt On Plate   |            |
| 12   | 1   | 25124              | Plate - Power Drive Weldment                            |            |
| 13   | 2   | FW 1/2             | Flatwasher - 1/2" Zinc Plated USS                       |            |
| 14   | 2   | FW 1/4             | Flatwasher - 1/4" Zinc Plated USS                       |            |
| 15   | 1   | GR 1/4 X 28        | Grease Fitting 1/4-28 Straight-Standard Zerk            |            |
| 16   | 2   | HB 1/2-13X1.5 Z5   | Hex Bolt 1/2-13x1 1/2 Grade 5 Zinc Plated Hex Cap Screw |            |
| 17   | 1   | HB 1/2-20 X1.5 YZ8 | Hex Bolt 1/2-20x1 1/2 Grade 8 Zinc Hex Cap Screw        |            |
| 18   | 3   | HB 1/2X5/8 SS      | Socket Head Shoulder Screws - 1/2 Shldr x 5/8 x 3/8-16  |            |
| 19   | 2   | HB 1/4-20X0.5 Z5   | Hex Bolt 1/4-20x1/2 Grade 5 Zinc Plated Hex Cap Screw   |            |
| 20   | 1   | HB 3/8-16X1.5 Z5   | Hex Bolt 3/8-16x1 1/2 Grade 5 Zinc Plated Hex Cap Screw |            |
| 21   | 2   | HN 1/2             | Hex Nut 1/2"-13 Grade 5 Zinc Plated Finished            |            |
| 22   | 1   | HN 3/8             | Hex Nut 3/8"-16 Grade 5 Zinc Plated Finished            |            |
| 23   | 3   | LW 1/2             | LW - 1/2" Zinc Plated Medium Split                      |            |
| 24   | 2   | PB 1/2-13X2.5      | Plow Bolts - 1/2-13 x 2 1/2 Flat Head Gr.5              |            |
| 25   | 1   | TLWHEEL9           | Power Drive Eccentric                                   |            |
| 26   | 1   | WHEEL2012          | Outside Handle Washer                                   |            |
| 27   | 1   | WHEEL20121         | Inside Handle Washer                                    |            |
| 28   | 1   | WHEEL2013          | Inside Cam Washer                                       |            |

## Power Drive Manifold Ports



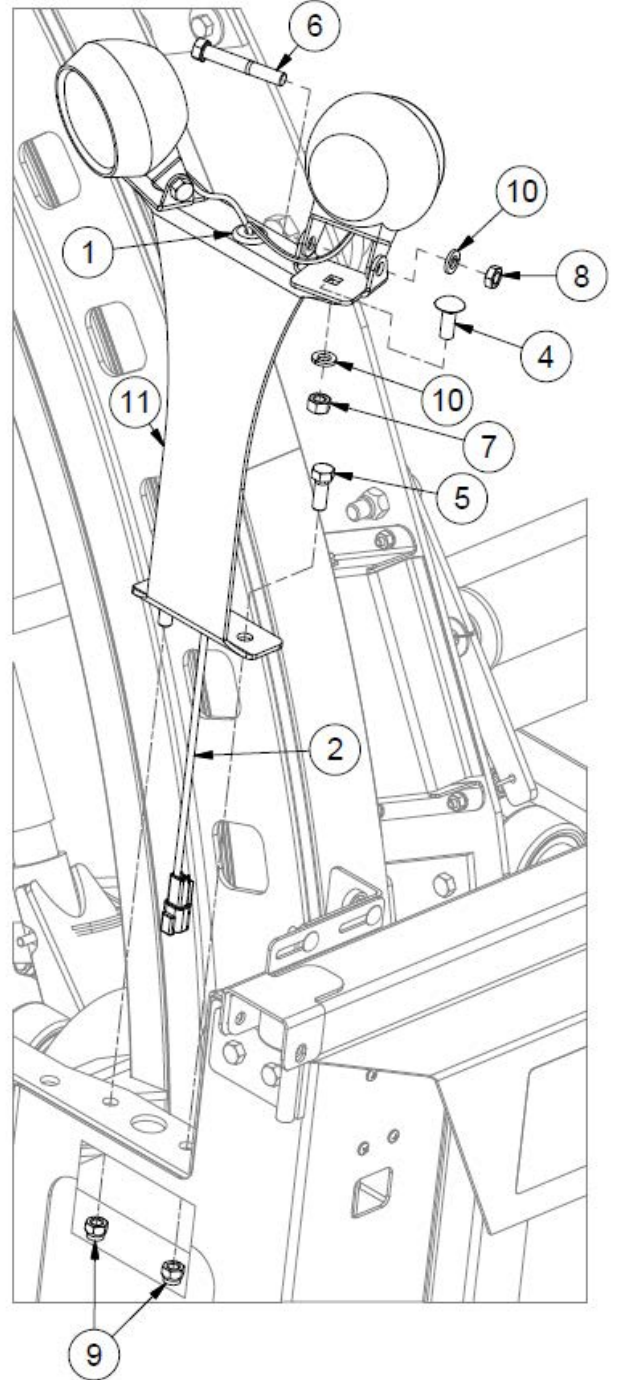
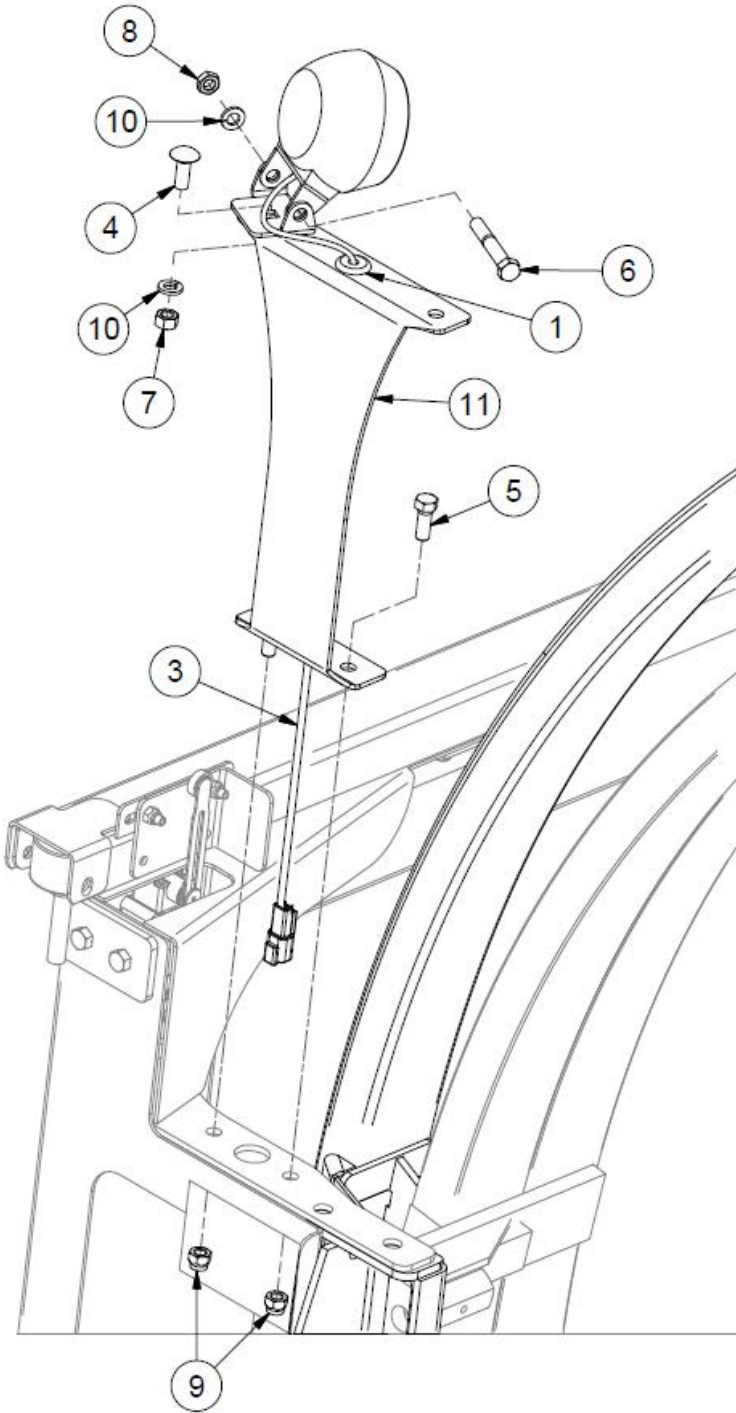
| ITEM | QTY | PART NUMBER  | DESCRIPTION                             |
|------|-----|--------------|---|
| 1    | 1   | 30299        | ECV Bale Wrapper Powerdrive Block       |
| 2    | 2   | HF 6400-6-10 | Hydraulic Fitting - Male JIC - Male ORB |

## Power Drive Manifold Valves



| ITEM | QTY | PORT     | PARTNUMBER | DESCRIPTION                   |
|------|-----|----------|------------|-------------------------------|
| 1    | 2   | SV8, SV9 | 43666      | Pilot Reducing Solenoid Valve |
| 2    | 2   | SV8, SV9 | 43628      | 12V DC Solenoid Valve Coil    |
| 3    | 1   | PE3      | 43671      | Directional Valve             |

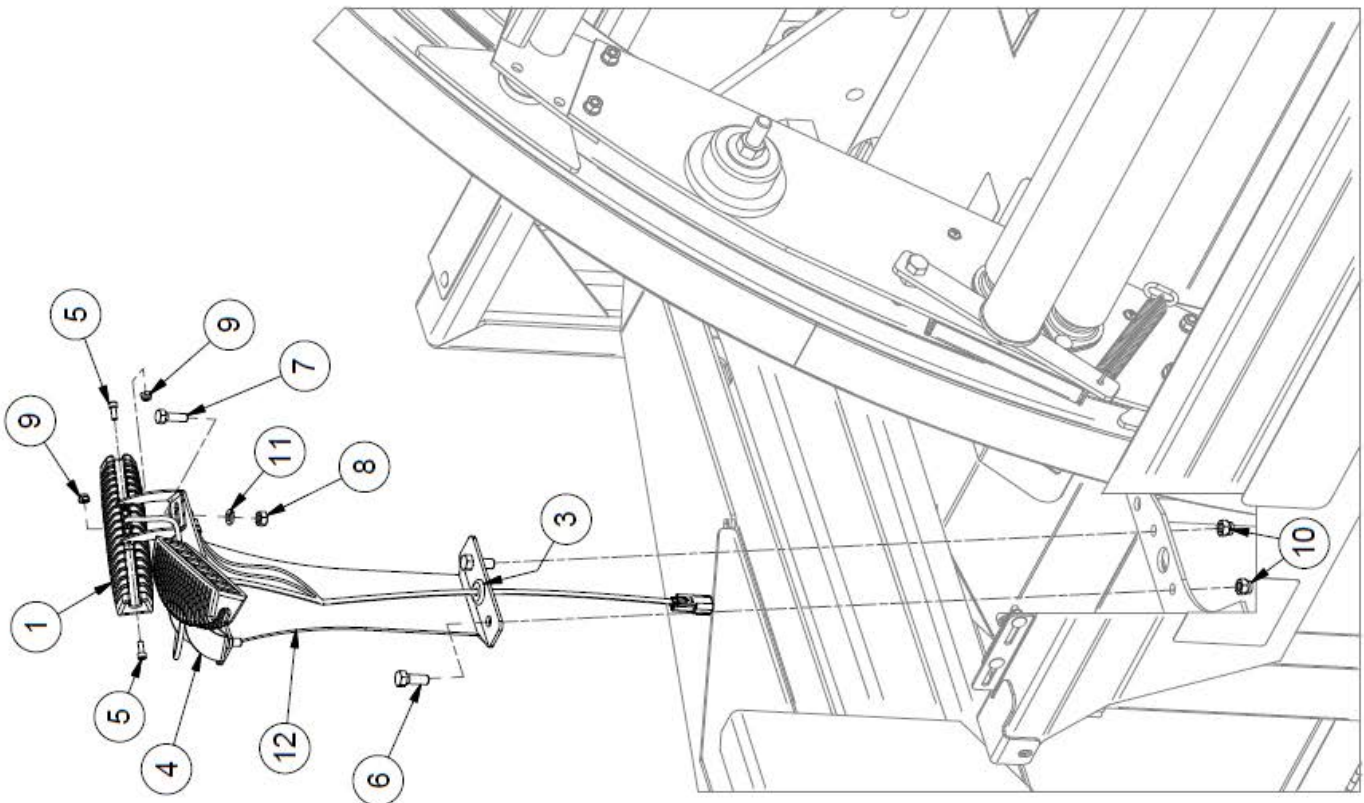
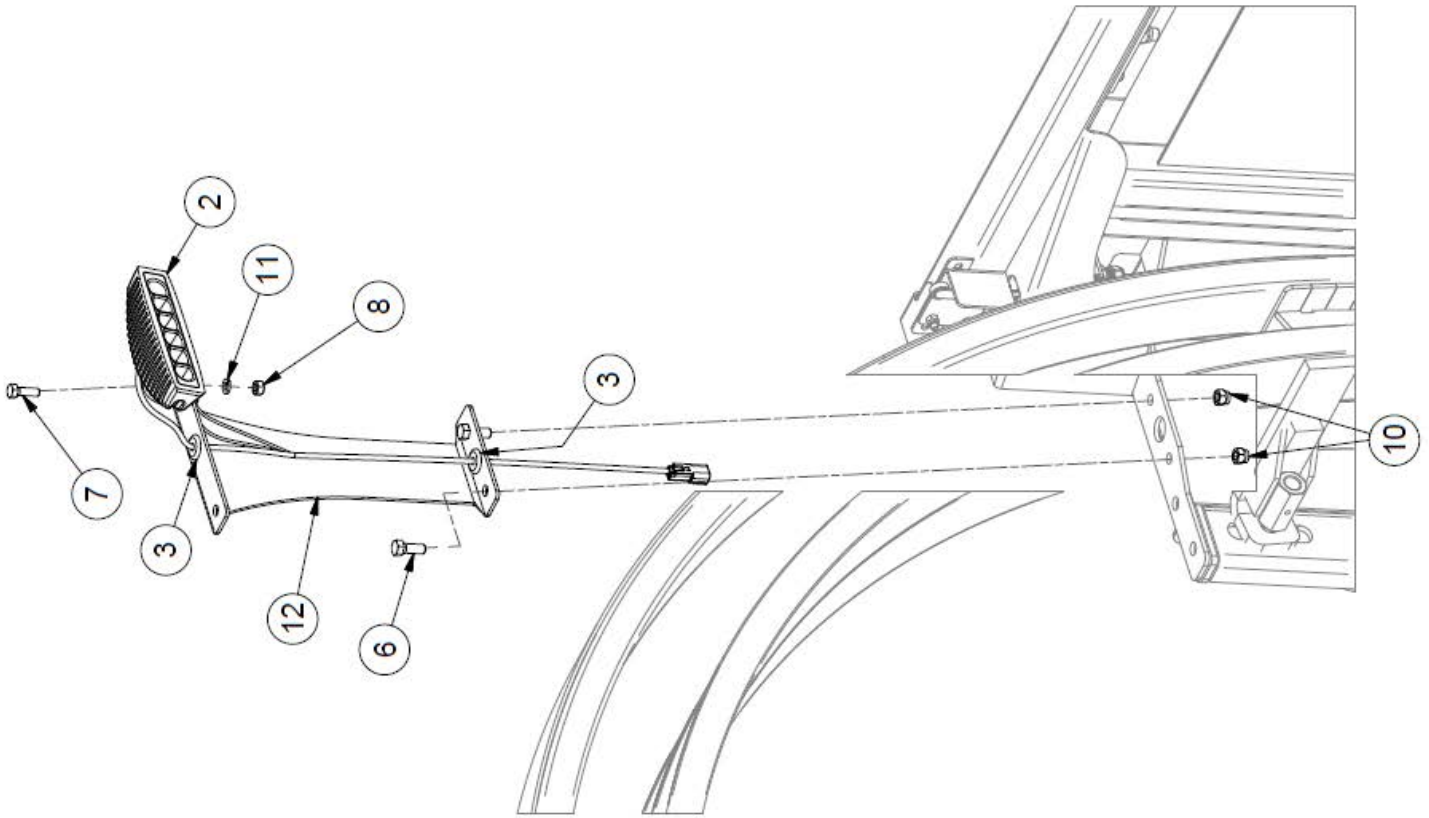
# TLNWLK-ECV - Night Light Kit



## TLNWLK-ECV - Night Light Kit

| ITEM | QTY | PART NUMBER      | DESCRIPTION   | NOTE         |
|------|-----|------------------|---|--------------|
| 1    | 4   | 30862            | Grommet for Night Lights                                |              |
| 2    | 1   | 43619            | TLNWLK-ECV Twin Harness                                 | Incl. Lights |
| 3    | 1   | 43620            | TLNWLK-ECV Single Harness                               | Incl. Light  |
| 4    | 3   | CB 3/8-16 X1 Z5  | Carriage Bolt - 3/8-16 x 1" Grade 5 Zinc                |              |
| 5    | 4   | HB 3/8-16X1 Z5   | Hex Bolt 3/8-16x1 Grade 5 Zinc Plated Hex Cap Screw     |              |
| 6    | 3   | HB 3/8-24X2.5 Z5 | Hex Bolt 3/8-24x2 1/2 Grade 5 Zinc Plated Hex Cap Screw |              |
| 7    | 3   | HN 3/8           | Hex Nut 3/8"-16 Grade 5 Zinc Plated Finished            |              |
| 8    | 3   | HN 3/8 JAM       | Hex Nut - 3/8-24 Zinc Plated Hex Jam Nut                |              |
| 9    | 4   | LN 3/8 N         | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut             |              |
| 10   | 6   | LW 3/8           | LW - 3/8" Zinc Plated Medium Split                      |              |
| 11   | 2   | TL5X2-100-201    | Light Bracket   |              |

# TLNWLKLED-ECV Night Light Kit

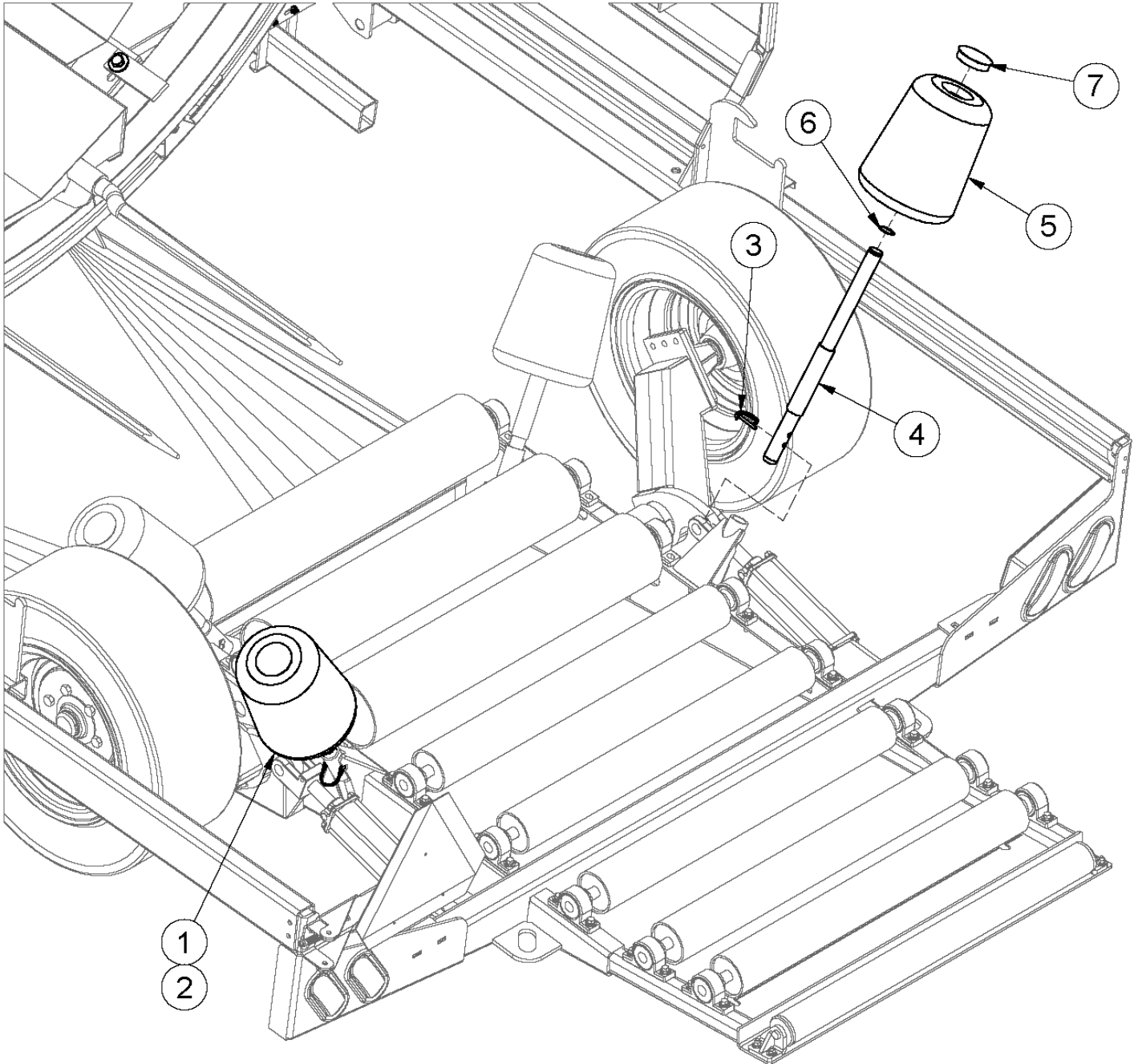


## TLNLWKLED-ECV Night Light Kit

| ITEM | QTY | PART NUMBER       | DESCRIPTION  | NOTE         |
|------|-----|-------------------|--|--------------|
| 1    | 1   | 43617             | TLNWLKLED-ECV Twin Harness                           | Incl. Lights |
| 2    | 1   | 43618             | TLNWLKLED-ECV Single Harness                         | Incl. Light  |
| 3    | 4   | 30862             | Grommet for Night Lights                             |              |
| 4    | 3   | 33223             | LED Light Bracket                                    |              |
| 5    | 6   | HB #10-32X.5 SHCS | Hex Bolt - 10-32 x 1/2 Socket Head Cap Screw         |              |
| 6    | 4   | HB 3/8-16X1 Z5    | Hex Bolt 3/8-16x1 Grade 5 Zinc Plated Hex Cap Screw  |              |
| 7    | 3   | HB 5/16-18X1 Z5   | Hex Bolt 5/16-18x1 Grade 5 Zinc Plated Hex Cap Screw |              |
| 8    | 3   | HN 5/16           | Hex Nut 5/16"-18 Grade 5 Zinc Plated Finished        |              |
| 9    | 6   | LN #10 F          | Center Locknuts (10-32) 2-Way Fine Thread            |              |
| 10   | 4   | LN 3/8 N          | LN 3/8-16 Zinc Plated Nylon Insert Lock Nut          |              |
| 11   | 3   | LW 5/16           | LW - 5/16" Zinc Plated Medium Split                  |              |
| 12   | 2   | TL5X2-100-201     | Light Bracket  |              |



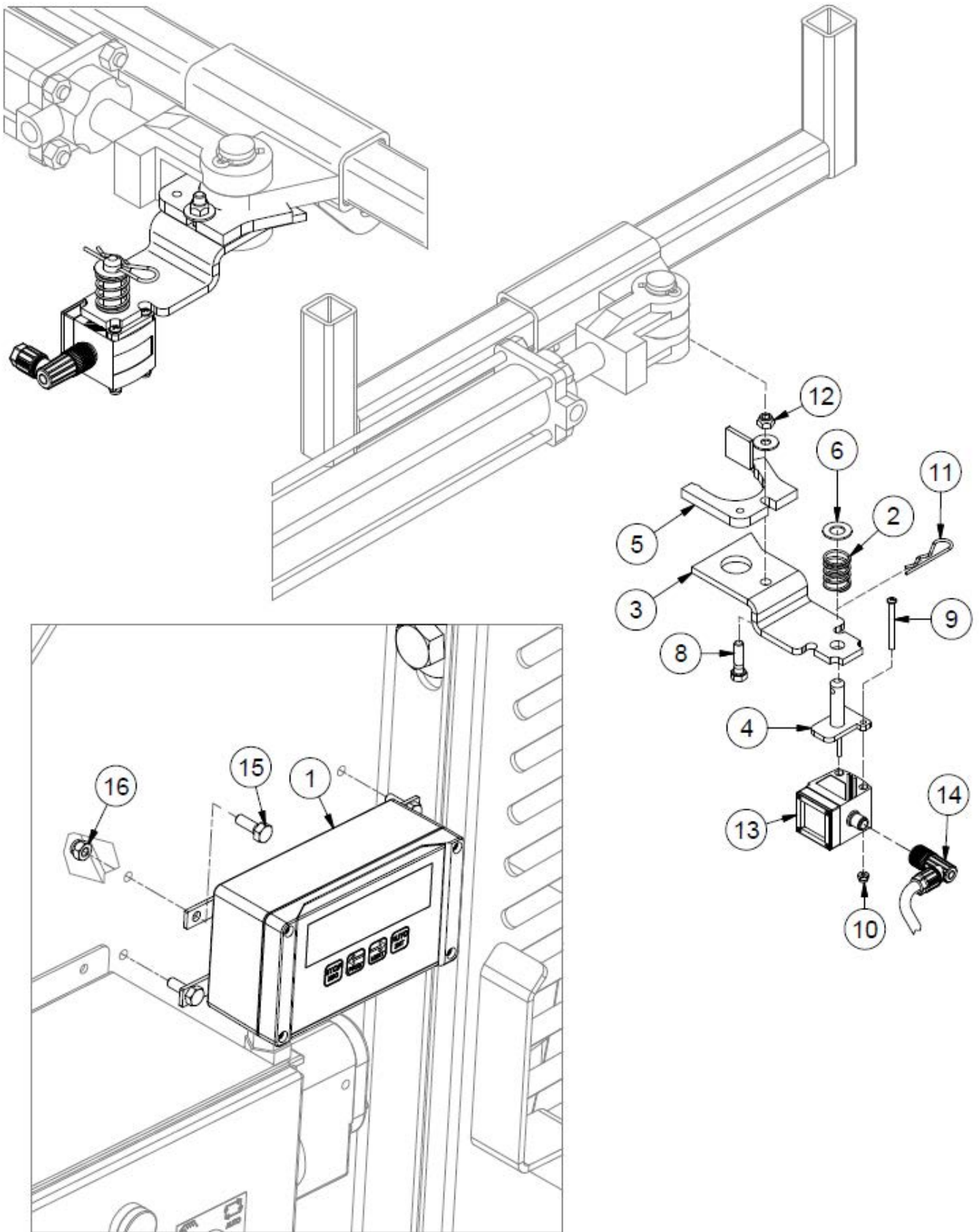
# TLGR - Guide Roller Kit



## TLGR - Guide Roller

| <b>ITEM</b> | <b>QTY</b> | <b>PART NUMBER</b> | <b>DESCRIPTION</b>                      |
|-------------|------------|--------------------|---|
| 1           | 2          | TLGRA              | Guide Roller (Single)                   |
| 2           | 1          | TLGR               | Guide Roller Kit                        |
| 3           | 2          | TL550-301-233      | Lock Pin - 5/16 PTO Pin                 |
| 4           | 2          | TL550-301-239      | Guide Roller Spindle                    |
| 5           | 2          | TL550-301-238      | Guide Roller                            |
| 6           | 2          | RR 1.25            | Retaining Ring (Spaenaur No. R3100-125) |
| 7           | 2          | TL245-057          | Nylon Plug 3"                           |

# TLGSECV - Laser Guidance System

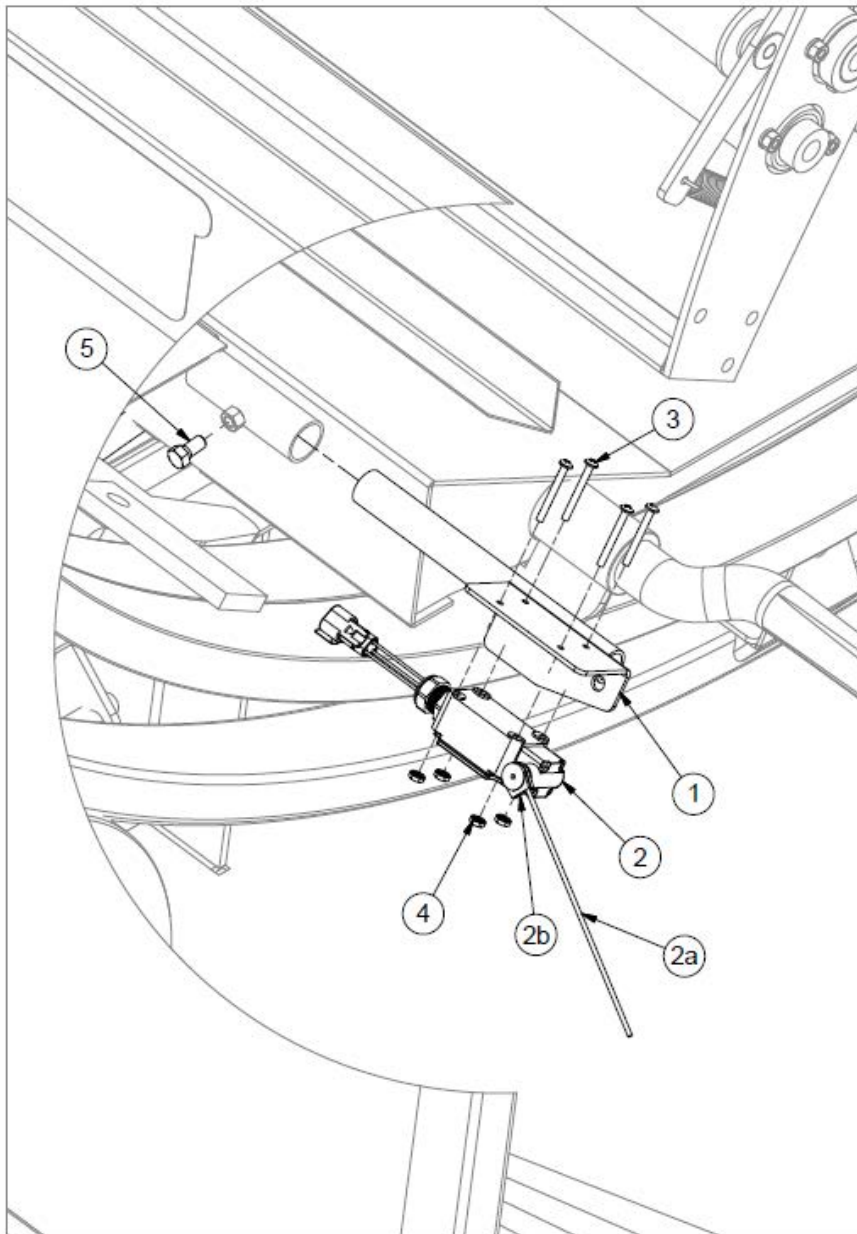


## TLGSECV - Laser Guidance System

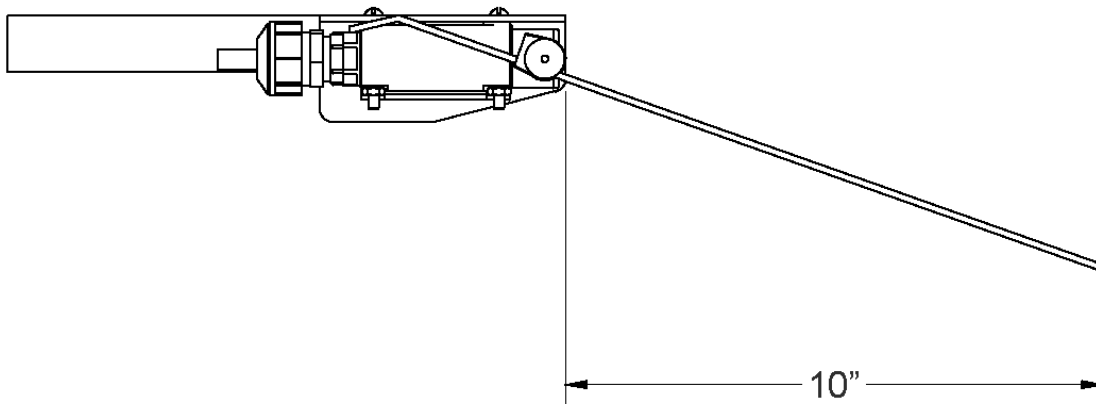
| ITEM | QTY | PART NUMBER         | DESCRIPTION  |
|------|-----|---------------------|--|
| 1    | 1   | 27566               | Spring Compression .97 OD x 2.0 Long                           |
| 2    | 1   | 39367               | Laser Pin Bracket  |
| 3    | 1   | 39372               | Pivot Bracket  |
| 4    | 1   | 40846               | Stiffener Plate  |
| 5    | 1   | FW 1/2              | Flatwasher - 1/2" Zinc Plated USS (1096)                       |
| 6    | 1   | FW 5/16             | Flatwasher - 5/16" Zinc Plated USS (3840)                      |
| 7    | 1   | HB 5/16-18X1.1/4 Z5 | Hex Bolt - 5/16"-18 x 1 1/4" Grade 5 Zinc Plated Hex Cap Screw |
| 8    | 2   | HB 8-32X32 Z5       | Hex Bolt - #8-32 x 2 Zinc Finish Flat Socket Cap Screw         |
| 9    | 2   | HN 8                | Hex Nut #8-32 Zinc   |
| 10   | 1   | HP .125 X 1.5       | Hair Pin   |
| 11   | 1   | LN 5/16             | Center Locknuts  |
| 12   | 1   | 39387               | Sensor for Wrapper Guiding System                              |
|      | 1   | 42314               | ECV Laser Guidance Wire Assembly                               |

TLGSECV is retrofittable to pre 2018. However, it requires a software update at the manufacturer. Contact Tubeline Mfg for additional information and installation instructions to modify main wiring harness and add the alaser guidance option to the machine.

## TLPSSK - Plastic Sensor Shutdown Kit



Sensor wire must be adjusted so that only one layer of plastic is covering the end of the wire while wrapping. Adjustment can be made on the bracket and on the sensor wire. The end of the sensor wire behind the switch can be bent to allow the wire in front of the switch to drop down far enough to trip the switch when no plastic is present.



## TLPSSK - Plastic Sensor Shutdown Kit

| ITEM | QTY | PART NUMBER       | DESCRIPTION   |
|------|-----|-------------------|---|
| 1    | 1   | TLFSB2007         | Film Sensor Mtg. Brkt.                                |
| 2    | 1   | 32635             | ECV Wrapper, Film Sensor Switch                       |
| 2a   | 1   | TL550-100-049     | Wire Arm  |
| 2b   | 1   | TL550-100-082     | Wire Clamp  |
| 3    | 4   | MS #10X24X1.75    | Machine Screw - (Inch)                                |
| 4    | 4   | LN 10-24          | K-Lok Locknut   |
| 5    | 1   | HB 3/8-16X0.75 Z5 | Hex Bolt 3/8-16x3/4 Grade 5 Zinc Plated Hex Cap Screw |

### Plastic Sensor Shutdown Kit Installation

Install film sensor bracket:

1. Locate the wire labeled film sensor (pre-wired machine).
2. Remove the plug and connect to film sensor switch.
3. Install toggle switch in the control panel.
4. Remove the jumper wire between terminal 18 & 19.
5. Connect wires from toggle switch to terminal 18 & 19.

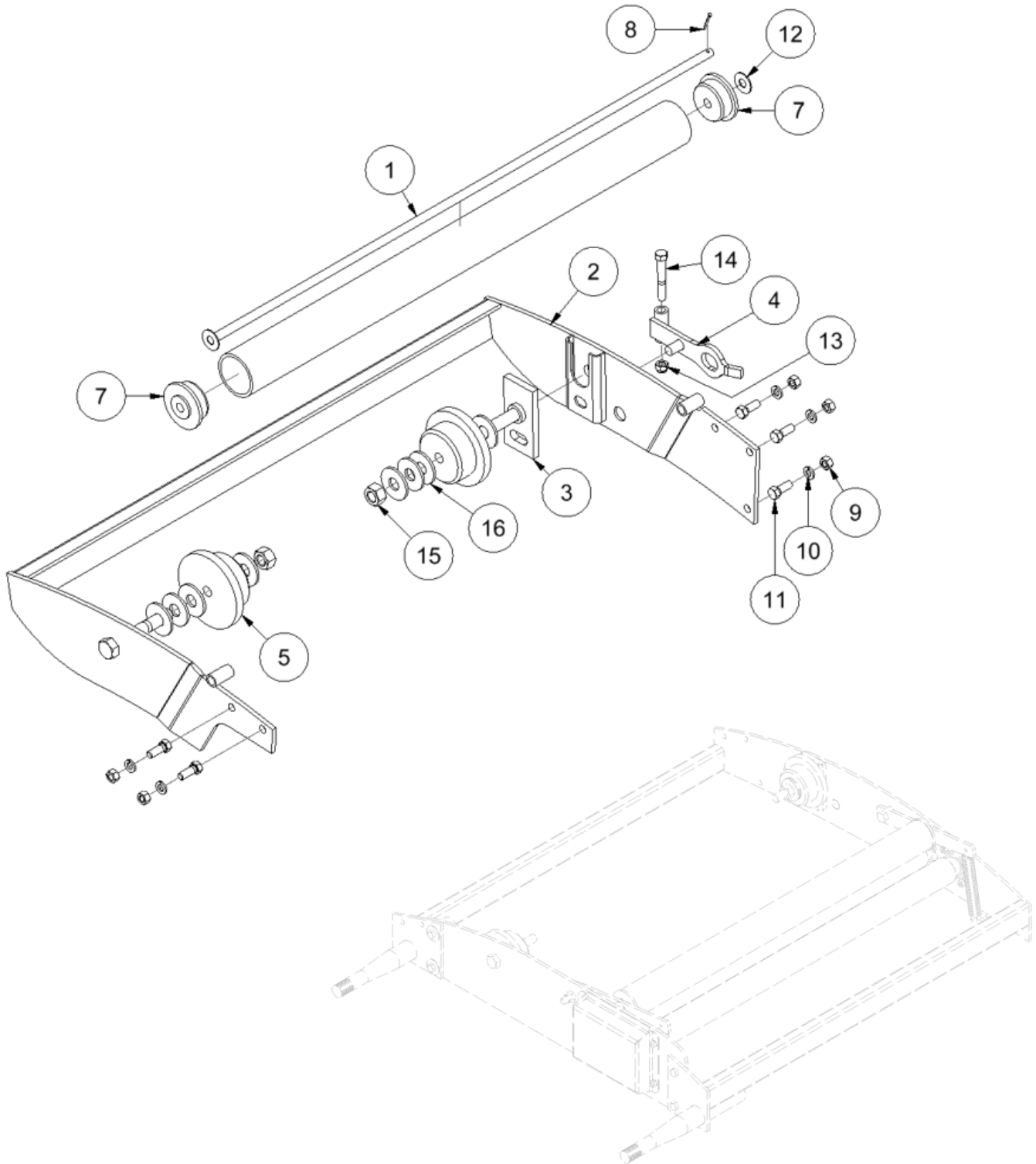
### Plastic Sensor Shutdown Kit Wire Adjustment

Use measurements as initial guide only.

1. Measure length of wire from the hoop face (see previous page).
2. 9.5" wire = approx. 3" between wraps = 8-9 layers per bale.
3. 9.5" wire should stop hoop rotation just after an empty tensioner passes the wire.
4. Lengthen wire 3" for 4 layers of wrap or 1.5" for 6 layers.
5. Shorten wire by 1.5" for 10 layers per bale.

As a guide, if the hoop stops before an empty tensioner passes the film sensor wire, the wire is **too short** and if the hoop **does not** stop with one empty tensioner the film sensor is **too long**.

# TLTWK - Twin Wrap Kit

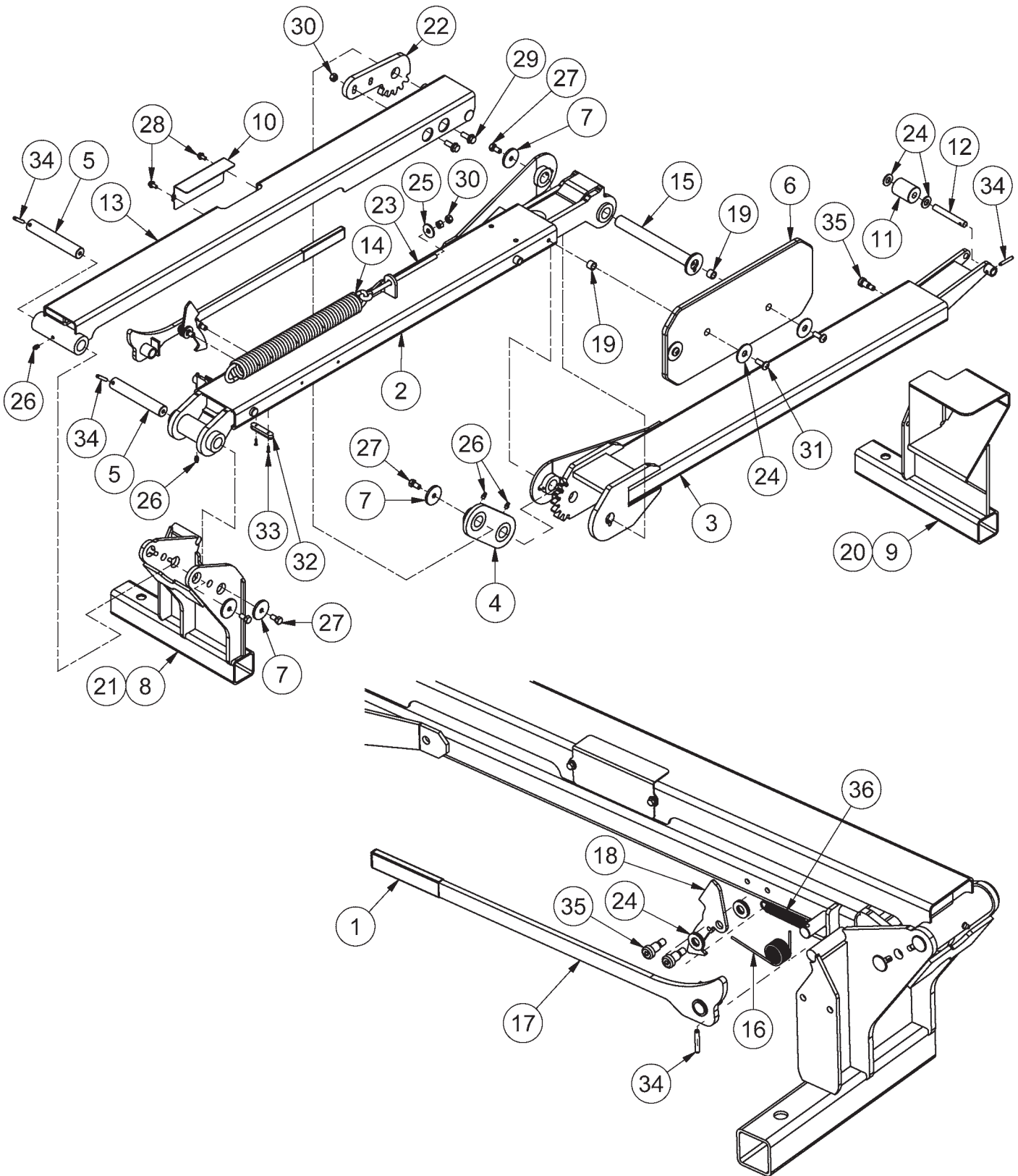


## TLTWK - Twin Wrap Kit

| ITEM | QTY | PART NUMBER        | DESCRIPTION  |
|------|-----|--------------------|--|
|      |     | TL TWK             | Twin Wrap Kit  |
| 1    | 1   | TL TWROD           | Idler Axle   |
| 2    | 1   | TL550-200-139      | Twin Wrap Frame  |
| 3    | 1   | TL550-200-115      | Spool Holder Bracket   |
| 4    | 1   | TL550-200-103      | Spool Holder Latch   |
| 5    | 2   | TL550-200-012      | Wrap Spool Holder  |
| 6    | 1   | TL550-100-022      | Plastic Idler  |
| 7    | 2   | TL500-100-021      | Idler End Caps   |
| 8    | 1   | CP 18X1            | Pin, Cotter 1/8 x 1.0  |
| 9    | 5   | HN 3/8             | Hex Nut 3/8"-16 Grade 5 Zinc Plated Finished NC                |
| 10   | 5   | LW 3/8             | Lockwasher - 3/8" Zinc Plated Medium Split                     |
| 11   | 5   | HB 3/8-16X1.0 Z5   | Hex Bolt 3/8-16 x 1" Grade 5 Zinc Plated Hex Cap Screw NC      |
| 12   | 2   | FW 7/16            | Flatwasher - 7/16" Zinc Plated USS                             |
| 13   | 1   | LN 3/8 N           | Locknuts - 3/8-16 Zinc Plated Nylon Insert Lock Nut            |
| 14   | 1   | HB 3/8-16X2.1/2 Z5 | Hex Bolt 3/8"-16 x 2-1/2" Grade 5 Zinc Plated Hex Cap Screw NC |
| 15   | 2   | HN 5/8             | Hex Nut - 5/8"-11 Grade 5 Zinc Plated Finished NC              |
| 16   | 8   | FW 5/8             | Flatwasher - 5/8" Zinc Plated USS                              |













# TLMPO-5000 - Dispatch Arm



## TLMPO-5000 - Dispatch Arm

| ITEM | QTY | PART NUMBER         | DESCRIPTION  | NOTE              |
|------|-----|---------------------|--|-------------------|
| 1    | 1   | 22707               | Rubber Handle for 3/8 X 1 Flat Bar                   |                   |
| 2    | 1   | 31186               | Folding Pushoff Left Arm                             |                   |
| 3    | 1   | 31188               | Folding Pushoff Right Arm                            |                   |
| 4    | 1   | 31300               | Folding Pushoff Arm Link                             |                   |
| 5    | 2   | 31301               | Pushoff Pin  |                   |
| 6    | 1   | 31302               | Rubber Pushoff Pin                                   |                   |
| 7    | 4   | 31303               | Pin Endcap   |                   |
| 8    | 1   | 31309               | Folding Pushoff Left Base                            | Up to 16R234      |
| 9    | 1   | 31312               | Folding Pushoff Right Base                           | Up to 16R234      |
| 10   | 1   | 31367               | Spring Tension Access Cover                          |                   |
| 11   | 1   | 31369               | Last Pushoff Roller                                  |                   |
| 12   | 1   | 31385               | Pushoff Roller Pivot Pin                             |                   |
| 13   | 1   | 31388               | Folding Pushoff Guide Arm                            |                   |
| 14   | 1   | 31395               | Tension Spring                                       |                   |
| 15   | 1   | 31535               | Pushoff  |                   |
| 16   | 1   | 33230               | Torsion Spring                                       |                   |
| 17   | 1   | 33231               | Folding Pushoff Handle                               |                   |
| 18   | 1   | 36690               | Folding Pushoff Latch                                |                   |
| 19   | 3   | 36942               | Rubber Plate Spacer                                  |                   |
| 20   | 1   | 39696               | Large Hoop Pocket (Weldment)                         | 16R236 to Current |
| 21   | 1   | 39697               | 5000 Pushoff Left Side                               | 16R236 to Current |
| 22   | 1   | 45809               | HRP 0.500 in   |                   |
| 23   | 1   | EB3/8-16X6.0        | Eye Bolt - 3/8-16 x 6" Shank Zinc Turned             |                   |
| 24   | 9   | FW 1/2              | Flatwasher - 1/2" Zinc Plated USS                    |                   |
| 25   | 1   | FW 3/8              | Flatwasher - 3/8" Zinc Plated USS                    |                   |
| 26   | 7   | GR 1/4 X 28         | Grease Fitting 1/4-28 Strght-Standrd Zerk            |                   |
| 27   | 4   | HB3/8-16X0.75Z5     | Hex Bolt 3/8-16x3/4 Gr 5 Zinc Hex Cap Screw          |                   |
| 28   | 2   | HBC1/4X0.5          | Hex Bolt Cerrated 1/4-20 x 1/2 Zinc Flange Bolt      |                   |
| 29   | 2   | HBC3/8X1            | Hex Bolt Cerrated 3/8-16 x 1 Zinc Flange Bolt        |                   |
| 30   | 4   | HN3/8-16CZ5         | Hex Nut 3/8"-16 Gr 5 Zinc Plated Finished            |                   |
| 31   | 3   | MS 3/8X16X1         | Machine Screw - (Inch)                               |                   |
| 32   | 1   | PP00685             | Rubber Stop  |                   |
| 33   | 2   | PP00686             | Wood Screw, #6 x 5/8"                                |                   |
| 34   | 4   | RP 1/4 x 1 1/2      | Pin - Roll Pin 1/4 x 1 1/2                           |                   |
| 35   | 3   | SHSS1/2X5/8X3/8-16Z | Socket Head Shoulder Screw-1/2 Shldr x<br>5/8x3/8-16 |                   |
| 36   | 1   | TL550-100-069       | Throttle Spring                                      |                   |

# Torque Values - Imperial

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

| 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

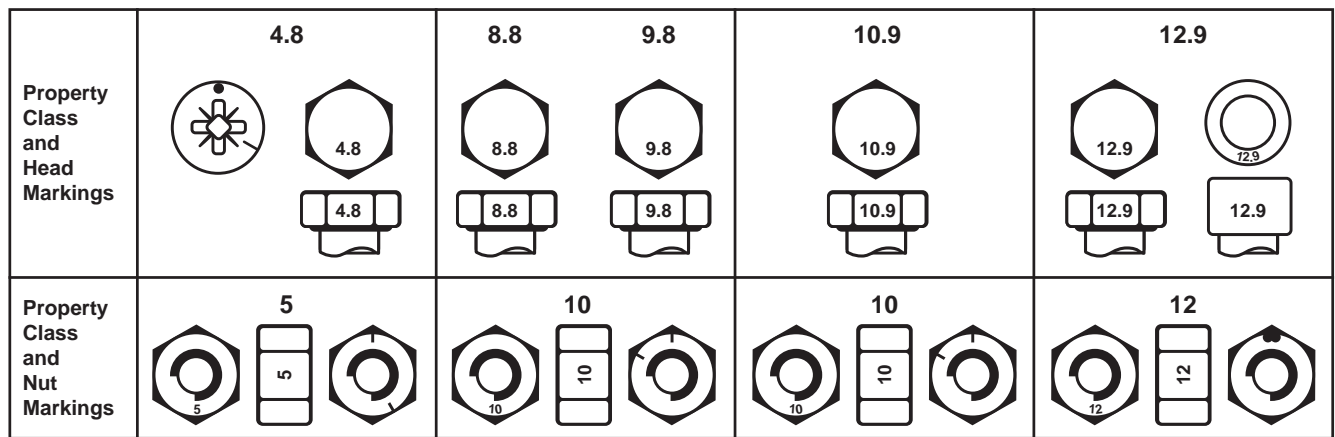
them from failing when tightening.

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 Values - Metric



| 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.

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#### Proposition 65 Warning

Battery posts, terminals, and similar parts may contain lead which are known to the State of California to cause cancer and reproductive harm. Wear gloves and wash hands after handling.



#### WARNING

The engine exhaust from this product contains chemicals known in the state of California to cause cancer, birth defects, or other reproductive harm.

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