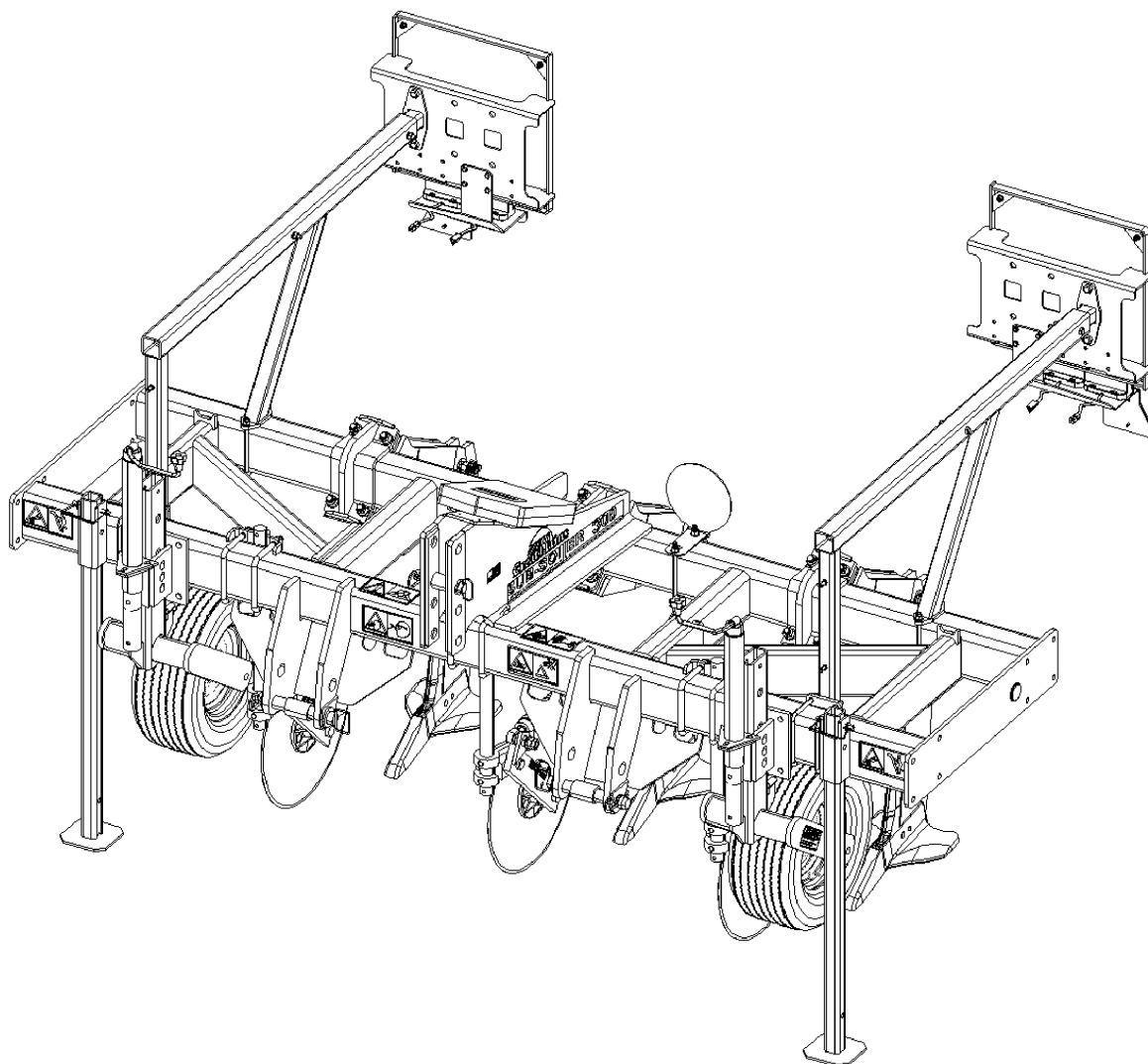


Great Plains

# Tillage

## PARTS MANUAL

VT1520 Sub-Soiler



Original Instructions

596-383P



*Read the Operator's Manual entirely. When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!*

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*Cover photo may show optional equipment not supplied with standard unit.*





# Table Of Contents

|                                                     |           |
|-----------------------------------------------------|-----------|
| <b>Introduction</b>                                 | <b>1</b>  |
| <i>Using This Manual</i>                            | 1         |
| <i>Manual Replacement Information</i>               | 1         |
| <i>Manual Revisions</i>                             | 1         |
| <i>Touch-up Paint</i>                               | 1         |
| <i>Hardware Legend</i>                              | 2         |
| <i>Replacement Hardware</i>                         | 2         |
| <i>Serial Numbers</i>                               | 2         |
| <b>Section 2: Frames</b>                            | <b>3</b>  |
| <i>Center Frame 0300</i>                            | 3         |
| <i>Decals</i>                                       | 5         |
| <i>Lights-Export Only</i>                           | 7         |
| <b>Section 3: Transport</b>                         | <b>9</b>  |
| <i>Gauge Wheel Assembly</i>                         | 9         |
| <i>Hub &amp; Tire Assembly</i>                      | 11        |
| <b>Section 4: Shanks &amp; Coulter</b>              | <b>13</b> |
| <i>Rigid Shank Mount Assembly</i>                   | 13        |
| <i>No-Till Shank &amp; Shin Assembly</i>            | 15        |
| <i>1 1/4" Shank &amp; Shin Assembly</i>             | 17        |
| <i>Standard Auto Reset Shank Mount Assembly</i>     | 19        |
| <i>Hi-Protection Auto Rest Shank Mount Assembly</i> | 21        |
| <i>Coulter Assembly</i>                             | 23        |
| <b>Section 5: Optional</b>                          | <b>25</b> |
| <i>Berm Conditioner Frame</i>                       | 25        |



## General Information

### Using This Manual

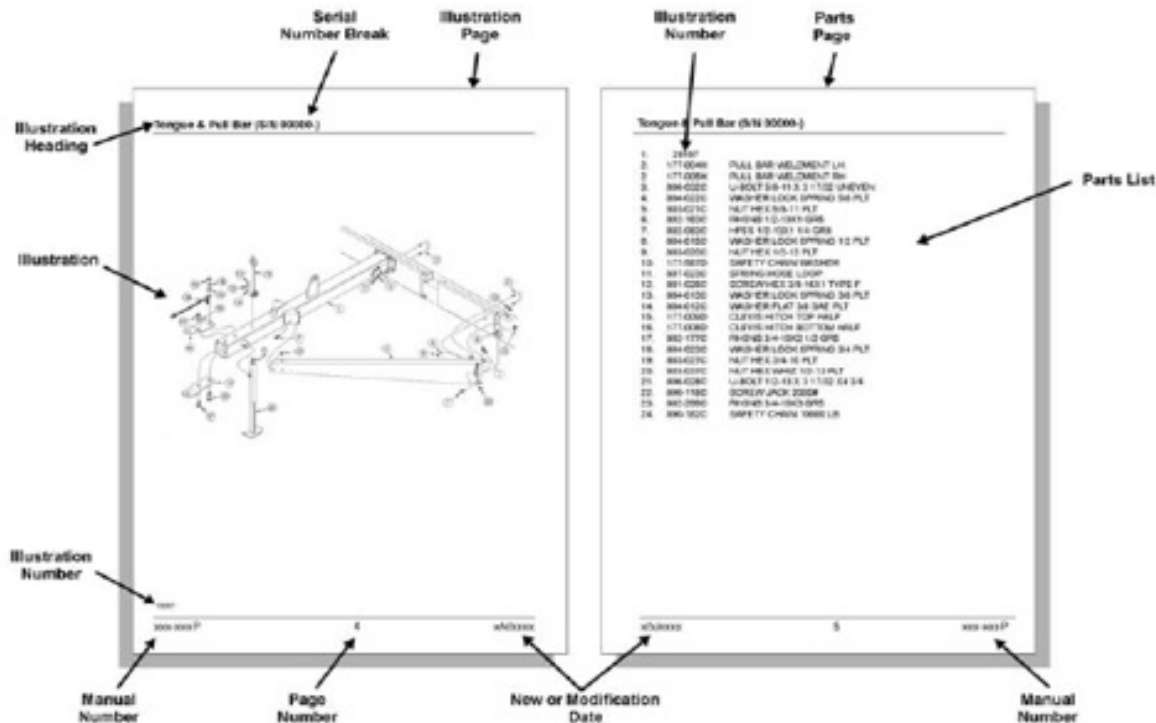
This manual is divided into sections. The first section contains General Information, a Table of Contents, an Alphabetical Page Index, and a Part Number Index. The remaining sections divide the machine into segments (i.e. Frames, Drives, Hydraulics, etc.) which illustrate and list all parts.

The Great Plains parts in this manual are specially designed for this machine and should be replaced with Great Plains parts only.

The information in this manual is current at printing. Some parts may change to assure top performance.

Right-hand and left-hand as used in this manual are determined by facing the direction the machine will travel while in use.

Below is an example of two facing pages from a parts manual. Familiarize yourself with the contents of these pages.



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### Manual Replacement Information

Replacement manuals are available. Refer to your dealer or the Great Plains Publications Catalog for additional information.

### Manual Revisions

When this manual is revised, the modification date is printed on the front cover and on the revised page(s).

### Touch-up Paint

Repaint parts where paint is worn or scratched to prevent rust. Aerosol touch-up paint is available. To order use Great Plains parts numbers below:

|             |          |
|-------------|----------|
| GP Green    | 821-001C |
| GP Black    | 821-002C |
| GP Beige    | 821-003C |
| GP Buckskin | 821-004C |

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## General Information

### Hardware Legend

|                |                                                |
|----------------|------------------------------------------------|
| <b>AR</b>      | As Required                                    |
| <b>BLADE</b>   | Blade Bolt                                     |
| <b>C</b>       | Cap Screw                                      |
| <b>CP</b>      | Cotter Pin                                     |
| <b>CPHSSS</b>  | Cup Point Hex Socket Set Screw                 |
| <b>CPSHSS</b>  | Cup Point Square Head Set Screw                |
| <b>CPSQHSS</b> | Cup Point Square Head Set Screw                |
| <b>CRFCHMS</b> | Cross Recess Flat Countersunk Head Mach. Screw |
| <b>CRPHMS</b>  | Cross Recess Pan Head Machine Screw            |
| <b>CRPHTFS</b> | Cross Recess Pan Head Thread Forming           |
| <b>CRRHMS</b>  | Cross Recess Round Head Machine Screw          |
| <b>CRTHMS</b>  | Cross Recess Truss Head Machine Screw          |
| <b>CSNB</b>    | Countersunk Square Neck Bolt                   |
| <b>FHMS</b>    | Flat Head Machine Screw                        |
| <b>FTC</b>     | Full Thread Cap Screw                          |
| <b>H</b>       | Hex Nut                                        |
| <b>HCLN</b>    | Hex Center Lock Nut                            |
| <b>HFLCS</b>   | Hex Flange Lock Cap Screw                      |
| <b>HFS</b>     | Hex Flange Screw                               |
| <b>HFSLN</b>   | Hex Flange Serrated Lock Nut                   |
| <b>HFSS</b>    | Hex Flange Serrated Screw                      |
| <b>HHCS</b>    | Hex Head Cap Screw or Metric Bolt              |
| <b>HSBHCS</b>  | Hex Socket Button Head Cap Screw               |
| <b>HSFCHCS</b> | Hex Socket Flat Countersunk Head Cap Screw     |
| <b>SHCS</b>    | Hex Socket Head Cap Screw                      |
| <b>HSSS</b>    | Hex Socket Head Screw                          |
| <b>HTLN</b>    | Hex Top Lock Nut                               |
| <b>HWHCS</b>   | Hex Washer Head Cap Screw                      |

|                       |                                             |
|-----------------------|---------------------------------------------|
| <b>HWHMS</b>          | Hex Washer Head Machine Screw               |
| <b>HXBHCS</b>         | Hex Socket Button Head Cap Screw            |
| <b>J</b>              | Hex Jam Nut                                 |
| <b>JIC</b>            | 37 Degree Tapered Thread                    |
| <b>L</b>              | Helical Spring Lock Washer                  |
| <b>LUG</b>            | Lug Bolt                                    |
| <b>NFC</b>            | National Fine Cap Screw                     |
| <b>NPSM</b>           | National Pipe Straight Mechanical           |
| <b>NPTF</b>           | National Pipe Taper Fuel                    |
| <b>P</b>              | Wide Plain Washer                           |
| <b>PHMS</b>           | Pan Head Machine Screw                      |
| <b>PLOW</b>           | Plow Bolt                                   |
| <b>RHMS</b>           | Round Head Machine Screw                    |
| <b>RHSNB</b>          | Round Head Square Neck Bolt                 |
| <b>SCREW LEVELING</b> | Leveling Screw                              |
| <b>SCREW THUMB</b>    | Thumb Screw                                 |
| <b>SCREW WELD</b>     | Weld Screw                                  |
| <b>SFCHMS</b>         | Slotted Flat Countersunk Head Machine Screw |
| <b>SFHMS</b>          | Slotted Fillister Head Machine Screw        |
| <b>SP</b>             | Special                                     |
| <b>SP SCREW</b>       | Special Screw                               |
| <b>SQHSS</b>          | Square Head Set Screw                       |
| <b>SRHMS</b>          | Slotted Round Head Machine Screw            |
| <b>SSS</b>            | Socket Set Screw                            |
| <b>STCS</b>           | Self Tapping Cap Screw                      |
| <b>STHMS</b>          | Slotted Truss Head Machine Screw            |
| <b>WHEEL</b>          | Wheel Studs and Hub Long Bolts              |
| <b>WING</b>           | Wing Bolt                                   |

### Replacement Hardware

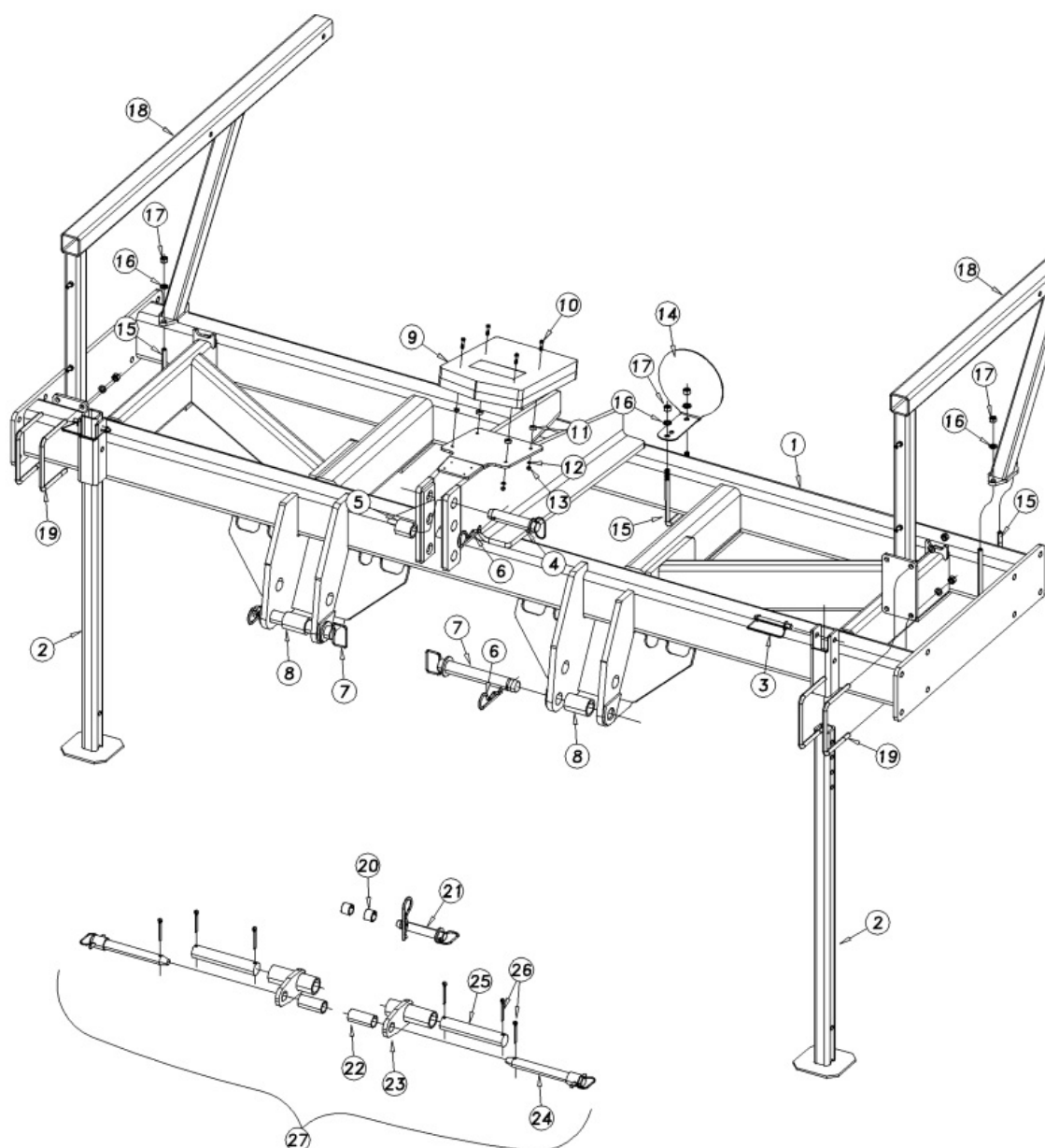
The **Hardware Legend** above lists hardware abbreviations used in the parts lists. All bolts and nuts are grade 5 unless otherwise noted. The use of improper grades of hardware can result in personal injury, damage to equipment, or loss of property.

### Serial Numbers

Always use the serial and model number when ordering parts. Refer to the operator's manual for serial number plate location.

|                                        |                                                                  |
|----------------------------------------|------------------------------------------------------------------|
| (S/N 20001+ or<br>S/N 20001 and above) | Includes serial numbers 20001 and above (to the latest number)   |
| (S/N 10001+→20000)                     | Includes serial numbers between 10000 and 20001                  |
| (S/N 10000- or<br>S/N 10000 and below) | Includes serial numbers 10000 and below (to the earliest number) |

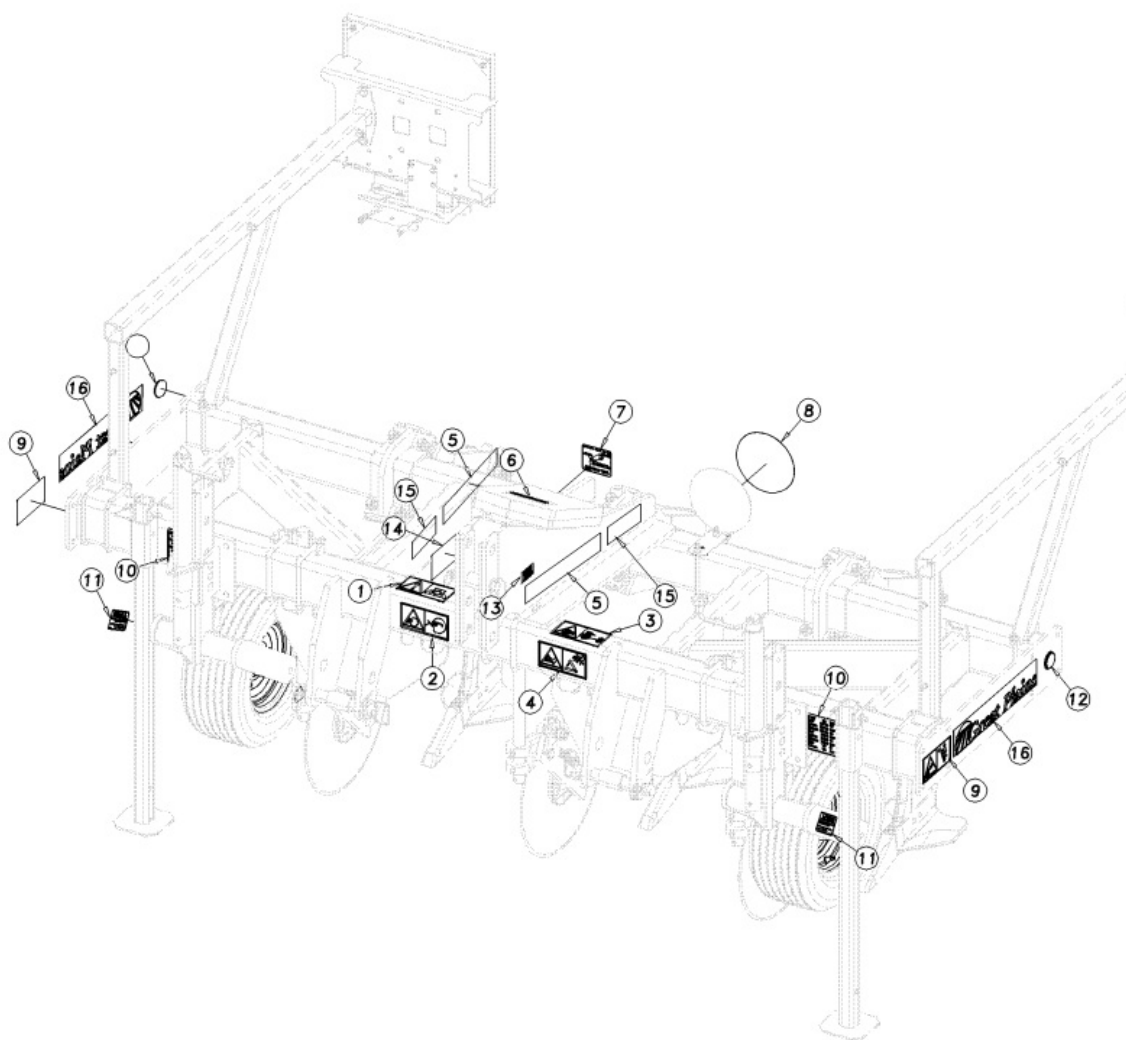
Applies to Models: VT1520



Applies to Models: VT1520

| Ref. | Part No.    | Part Description               | Comments             |
|------|-------------|--------------------------------|----------------------|
|      | dwgTP-77026 | Image No.                      |                      |
| 1    | 596-196H    | 3PT RIPPER 118" FRAME          |                      |
| 2    | 119-281H    | STAND WELDMENT                 |                      |
| 3    | 805-232C    | PIN WIRE SNAP LOCK 1/2 X 3 1/2 |                      |
| 4    | 805-119C    | PIN HTCH 1.25X4.50 USBL        |                      |
| 5    | 501-020D    | BUSHING - CAT 4 UPPER          |                      |
| 6    | 805-167C    | PIN HAIR COTTER .243 WIRE PLT  |                      |
| 7    | 805-168C    | PIN HTCH 1.44X8.38 USBL        |                      |
| 8    | 117-379D    | 20P CAT3 HITCH PIN BUSHING     |                      |
| 9    | 817-516C    | MANUAL PAK 1" W/ GASKET        |                      |
| 10   | 801-005C    | SCREW PAN HD 1/4-20 X 3/4      |                      |
| 11   | 817-042C    | MINI END WHEEL PRESS WHEEL     |                      |
| 12   | 804-006C    | WASHER LOCK SPRING 1/4 PLT     |                      |
| 13   | 803-006C    | NUT HEX 1/4-20 PLT             |                      |
| 14   | 596-271D    | BRACKET SPEED LIMIT            |                      |
| 15   | 806-069C    | U-BOLT 1/2-13 X 4 1/32 X 7 1/4 |                      |
| 16   | 804-015C    | WASHER LOCK SPRING 1/2 PLT     |                      |
| 17   | 803-020C    | NUT HEX 1/2-13 PLT             |                      |
| 18   | 596-245H    | SS EXPORT REAR LIGHT BKT MNT   |                      |
| 19   | 806-034C    | U-BOLT 1/2-13 X 6 1/32 X 5 1/4 |                      |
| 20   | 890-005C    | BUSHING CYL 1 1/4 X 1 X 1      |                      |
| 21   | 805-077C    | PIN HTCH 1.0X4.50 USBL W/PIN   |                      |
| 22   | 117-378D    | 20P LOWER HITCH BUSHING        |                      |
| 23   | 117-059H    | HITCH PIN SUPPORT INSERT       |                      |
| 24   | 805-489C    | PIN HTCH 1.13X8.06 USBL SP HD  |                      |
| 25   | 596-185D    | PIN 1 1/2 X 7 1/2 USEABLE, PLT |                      |
| 26   | 805-060C    | PIN COTTER 7/32 X 2            |                      |
| 27   | 596-060A    | RIPPER CAT 2 HITCH PIN KIT     | Includes items 20-26 |

Applies to Models: VT1520

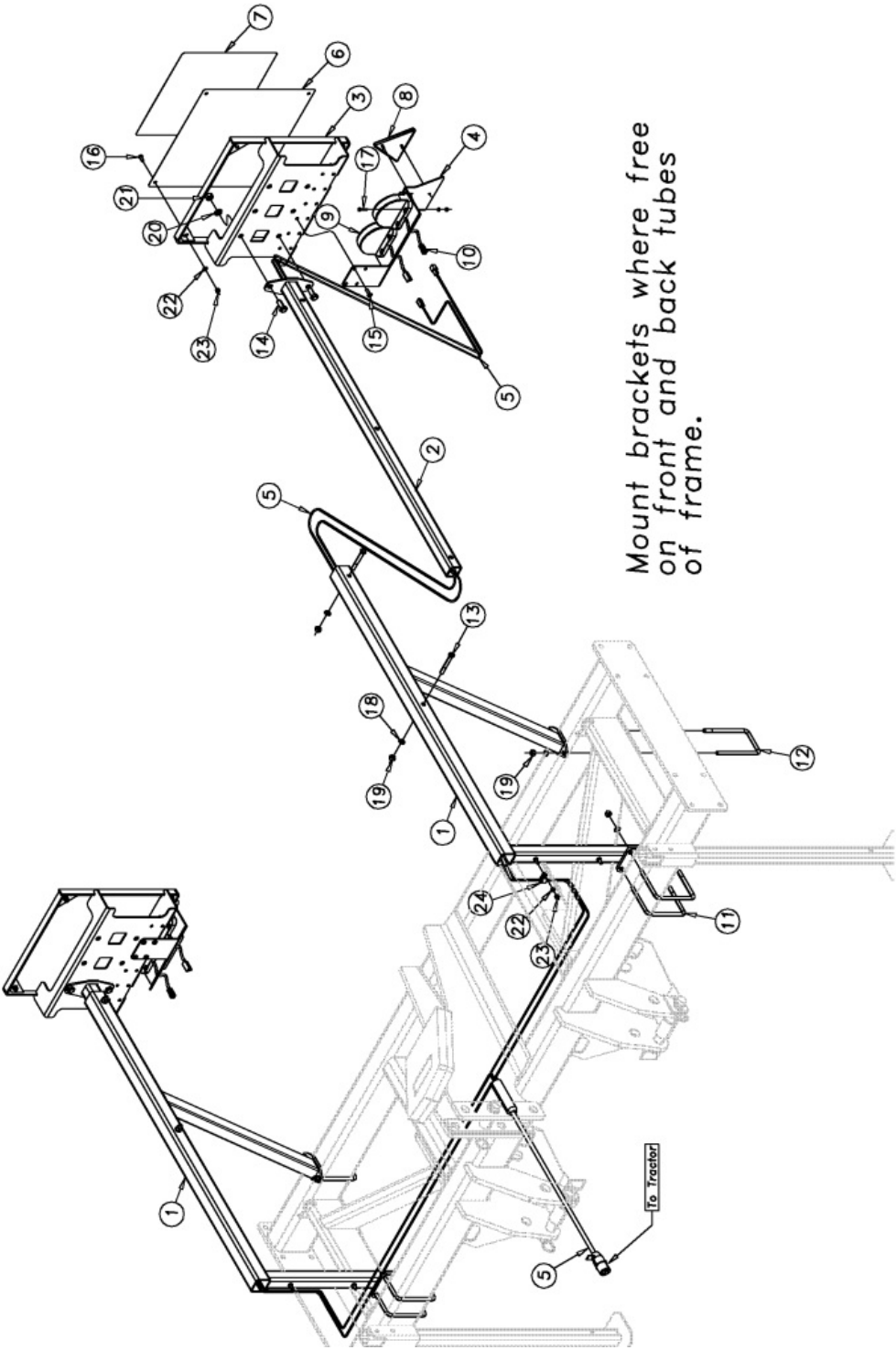




Applies to Models: VT1520

| Ref. | Part No.    | Part Description               | Comments |
|------|-------------|--------------------------------|----------|
|      | dwgTP-77178 | Image No.                      |          |
| 1    | 848-512C    | DECAL PIC READ MANUAL          |          |
| 2    | 848-510C    | DECAL PIC EYE PROTECTION       |          |
| 3    | 848-511C    | DECAL PIC DO NOT RIDE          |          |
| 4    | 848-531C    | DECAL PIC FINGER PINCH POINT   |          |
| 5    | 844-459C    | DECAL - SUB-SOILER             |          |
| 6    | 838-482C    | DECAL GP PLANTING COMPONENTS   |          |
| 7    | 858-105C    | DECAL RIPPER CLAMP BOLT TORQUE |          |
| 8    | 848-398C    | DECAL 30KM PER HR              |          |
| 9    | 848-507C    | DECAL PIC TIRE NOT A STEP      |          |
| 10   | 838-597C    | DECAL SUB-SOILER SHANK DEPTH   |          |
| 11   | 844-674C    | DECAL - TIRE 6.2 BAR/142 NM    |          |
| 12   | 838-615C    | DECAL REFLECTOR AMBER 2X9      |          |
| 13   | 818-190C    | DECAL FLAG                     |          |
| 14   | 848-517C    | DECAL PIC HIGH PRESSURE HYD    |          |
| 15   | 844-458C    | DECAL - VT 1520                |          |
| 16   | 844-463C    | DECAL - GP HRZNTL 3.63X19.77   |          |

Applies to Models: VT1520

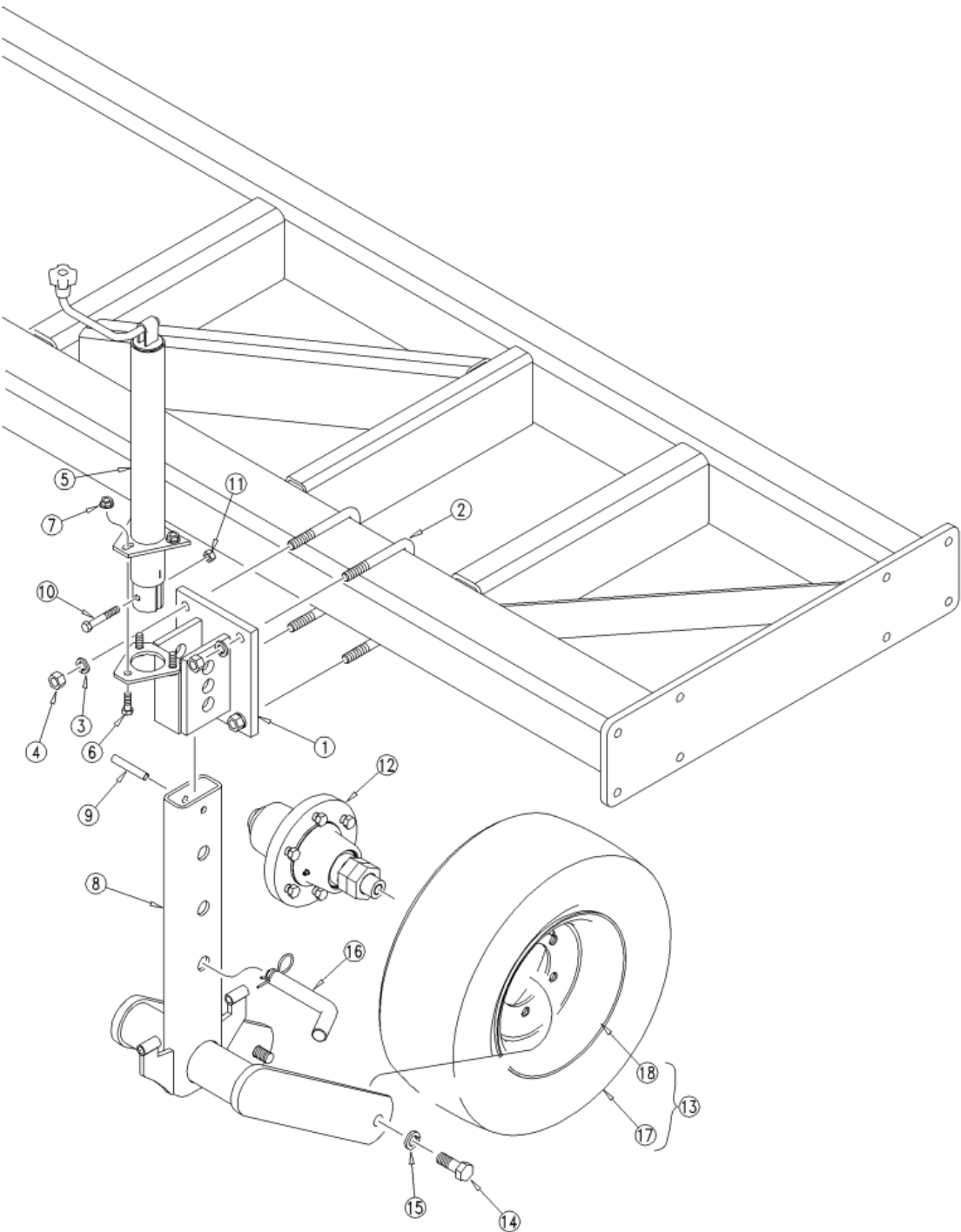


**Lights-Export Only**

Applies to Models: VT1520

| Ref. | Part No.      | Part Description               | Comments                     |
|------|---------------|--------------------------------|------------------------------|
|      | DWGTGTP-69419 | Image No.                      |                              |
| 1    | 596-245H      | SS EXPORT REAR LIGHT BKT MNT   |                              |
| 2    | 596-246H      | SS EXPORT 2-POS LIGHT MNT      |                              |
| 3    | 596-247H      | SIGN MOUNT WLMT                |                              |
| 4    | 596-378D      | SS EXPORT LED MNT BKT - RH     |                              |
| 4    | 596-379D      | SS EXPORT LED MNT BKT - LH     |                              |
| 5    | 833-670C      | HARNESS LIGHT EU SS-LED        |                              |
| 6    | 248-518D      | REFLECTOR PANEL BACK PLATE     |                              |
| 7    | 843-183C      | SQ REFLECTOR PANEL             | (Decal)                      |
| 8    | 833-399C      | RED TRIANGLE REFLECTOR         |                              |
| 9    | 833-600C      | TRU COUNT POWER SWITCH         |                              |
| 10   | 833-654C      | LIGHT, YELLOW LAMP LED EURO    |                              |
| 11   | 806-034C      | U-BOLT 1/2-13 X 6 1/32 X 5 1/4 |                              |
| 12   | 806-069C      | U-BOLT 1/2-13 X 4 1/32 X 7 1/4 |                              |
| 13   | 802-041C      | HHCS 1/2-13X3 1/2 GR5          |                              |
| 14   | 802-051C      | HHCS 5/8-11X1 1/2 GR5          |                              |
| 15   | 802-017C      | HHCS 3/8-16X1 GR5              |                              |
| 16   | 802-014C      | HHCS 3/8-16X3/4 GR5            |                              |
| 17   | 802-224C      | HHCS 1/4-20X1 1/4 GR5          |                              |
| 18   | 804-015C      | WASHER LOCK SPRING 1/2 PLT     | Also used with items 11 & 12 |
| 19   | 803-020C      | NUT HEX 1/2-13 PLT             | Also used with items 11 & 12 |
| 20   | 804-022C      | WASHER LOCK SPRING 5/8 PLT     |                              |
| 21   | 803-021C      | NUT HEX 5/8-11 PLT             |                              |
| 22   | 804-013C      | WASHER LOCK SPRING 3/8 PLT     | Also used with items 15      |
| 23   | 803-014C      | NUT HEX 3/8-16 PLT             | Also used with items 15      |
| 24   | 800-498C      | HOSE CLIP 3/8 ID               |                              |

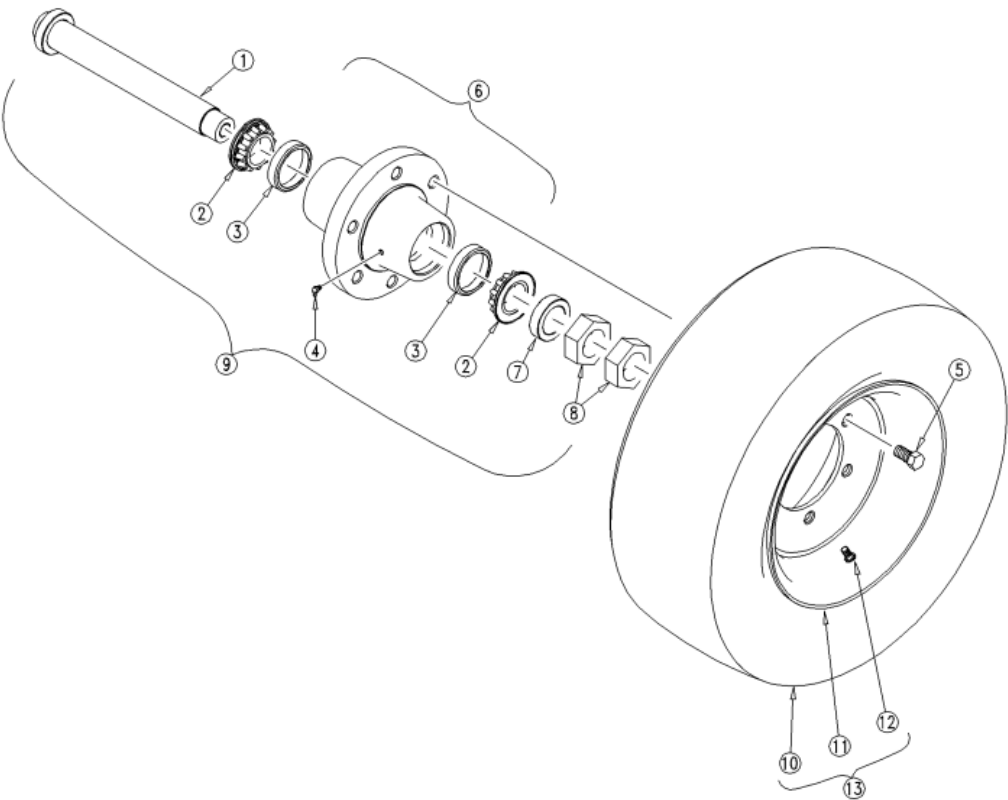
Applies to Models: VT1520



Applies to Models: VT1520

| Ref. | Part No.    | Part Description               | Comments               |
|------|-------------|--------------------------------|------------------------|
|      | dwgTP-77022 | Image No.                      |                        |
| 1    | 596-099H    | RIPPER GUAGE WHEEL MOUNT       |                        |
| 2    | 806-016C    | U-BOLT 5/8-11 X 6 1/32 X 5 3/4 |                        |
| 3    | 804-022C    | WASHER LOCK SPRING 5/8 PLT     |                        |
| 4    | 803-021C    | NUT HEX 5/8-11 PLT             |                        |
| 5    | 890-875C    | SCREW JACK 2000# TP-WND A-FRAM |                        |
| 6    | 802-673C    | HHCS 7/16-14X1 1/4 GR5 PLT     |                        |
| 7    | 803-229C    | NUT HEX FLANGE LOC 7/16-14 PLT |                        |
| 8    | 596-148H    | RIPPER GUAGE WHEEL ARM         |                        |
| 9    | 805-054C    | PIN ROLL 1/2 X 3 LG. PLT       |                        |
| 10   | 802-216C    | HHCS 3/8-16X2 3/4 GR5          |                        |
| 11   | 803-013C    | NUT LOCK 3/8-16 PLT            |                        |
| 12   | 596-146S    | RIPPER GUAGE WHEEL HUB ASY     |                        |
| 13   | 596-243K    | TIRE 20.5 X 8 10 PLY 6BLT BKSN | Includes items 17 & 18 |
| 14   | 802-064C    | HHCS 3/4-10X2 GR5              |                        |
| 15   | 804-023C    | WASHER LOCK SPRING 3/4 PLT     |                        |
| 16   | 805-355C    | PIN BENT 1.0X4.75 USBL W/PIN   |                        |
| 17   | 814-254C    | TIRE 20.5 X 8.0-10 LRE         |                        |
| 18   | 814-533C    | WHEEL10X6 6/6 4.62PH18INSET BK |                        |

Applies to Models: VT1520



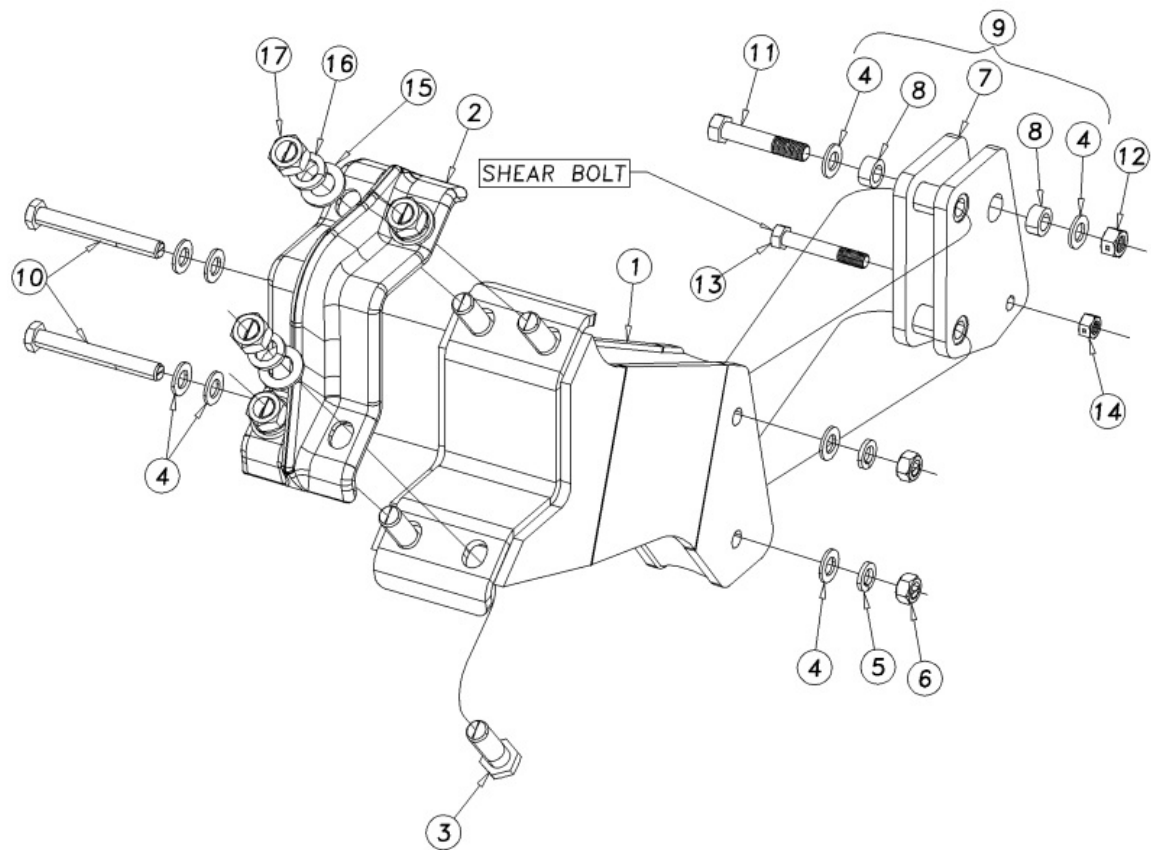
Applies to Models: VT1520

| Ref. | Part No.    | Part Description               | Comments             |
|------|-------------|--------------------------------|----------------------|
|      | dwgTP-77023 | Image No.                      |                      |
| 1    | 596-147H    | RIPPER HUB SPINDLE WELDMENT    |                      |
| 2    | 822-141C    | BRG CONE 1.50ID 13600LA90028   |                      |
| 3    | 822-231C    | BRG CUP 13621                  |                      |
| 4    | 800-058C    | GREASE ZERK 1/4-28 X 45-DEG    |                      |
| 5    | 802-845C    | BOLT WHL 9/16-18X1 1/8 GR5     |                      |
| 6    | 815-066C    | HUB ASSY 6 BOLT 4 5/8 PILOT    | Includes Items 3-5   |
| 7    | 596-230D    | SPINDLE SLEEVE                 |                      |
| 8    | 803-210C    | NUT HEX JAM 1 1/2-12 PLT       |                      |
| 9    | 596-146S    | RIPPER GUAGE WHEEL HUB ASY     | Includes Items 1-8   |
| 10   | 814-254C    | TIRE 20.5 X 8.0-10 LRE         |                      |
| 11   | 814-533C    | WHEEL10X6 6/6 4.62PH18INSET BK |                      |
| 12   | 814-210C    | VALVE STEM METAL TR-575 TUBLES |                      |
| 13   | 596-243K    | TIRE 20.5 X 8 10 PLY 6BLT BKS  | Includes Items 10-12 |

Great Plains  
***Rigid Shank Mount Assembly***

Section 4: Shanks & Coulter

Applies to Models: VT1520





Great Plains

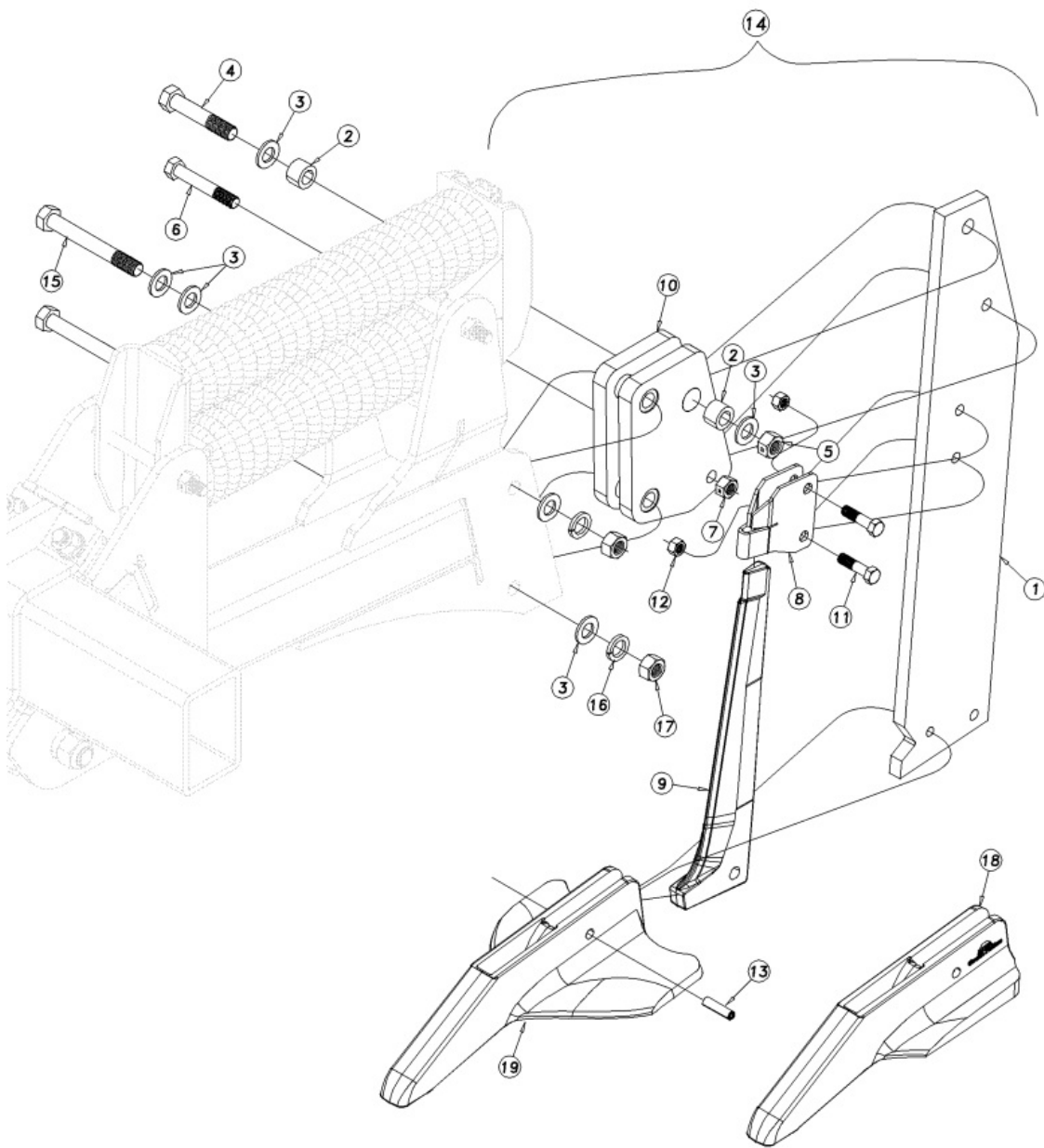
Rigid Shank Mount Assembly

Section 4: Shanks & Coulter

Applies to Models: VT1520

| Ref. | Part No.    | Part Description               | Comments                                                     |
|------|-------------|--------------------------------|--------------------------------------------------------------|
|      | dwgTP-77011 | Image No.                      |                                                              |
| 1    | 598-141H    | SHANK MOUNT, RIGID             |                                                              |
| 2    | 812-470C    | MOUNT CLAMP CASTING            |                                                              |
| 3    | 802-345C    | HHCS 1-8X3 GR8                 |                                                              |
| 4    | 804-093C    | WASHER FLAT 3/4 HARD ASTM F436 |                                                              |
| 5    | 804-023C    | WASHER LOCK SPRING 3/4 PLT     |                                                              |
| 6    | 803-027C    | NUT HEX 3/4-10 PLT             |                                                              |
| 7    | 598-099H    | SHANK HOLDER 1 1/4             | Used in 598-073A                                             |
| 7    | 598-029H    | SHANK HOLDER 3/4               | Used in 598-030A                                             |
| 8    | 599-143D    | SPACER BUSHING                 | Used in 598-073A                                             |
| 8    | 599-117D    | SPACER BUSHING                 | Used in 598-030A                                             |
| 9    | 598-073A    | SHANK HOLDER 1 1/4 SUB ASY     | Includes items 4, 7-8, for 1 1/4" Straight & Parabloc Shanks |
| 9    | 598-030A    | SHANK HOLDER 3/4 SUB ASY       | Includes items 4, 7-8, for 3/4" No-Till Shanks               |
| 10   | 802-487C    | HHCS 3/4-10X6 GR8              |                                                              |
| 11   | 802-068C    | HHCS 3/4-10X4 GR5              |                                                              |
| 12   | 803-026C    | NUT LOCK 3/4-10 PLT            |                                                              |
| 13   | 802-060C    | HHCS 5/8-11X4 GR5              |                                                              |
| 14   | 803-024C    | NUT LOCK 5/8-11 PLT            |                                                              |
| 15   | 804-306C    | WASHER FLAT 1 HARD PLT         |                                                              |
| 16   | 804-027C    | WASHER LOCK SPRING 1 PLT       |                                                              |
| 17   | 803-031C    | NUT HEX 1-8 PLT                |                                                              |

Applies to Models: VT1520



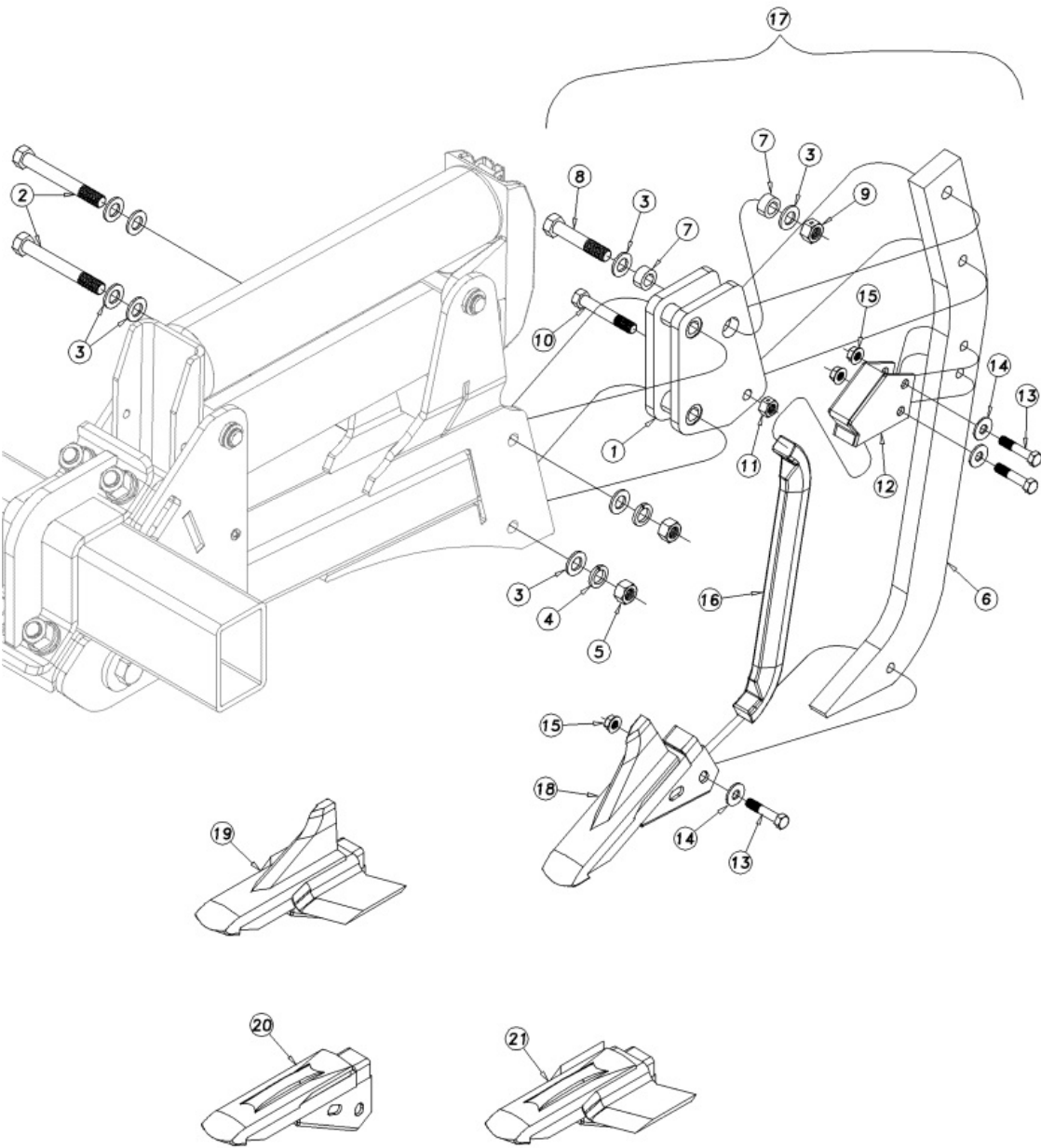
Applies to Models: VT1520

| Ref. | Part No.    | Part Description              | Comments            |
|------|-------------|-------------------------------|---------------------|
|      | dwgTP-77015 | Image No.                     |                     |
| 1    | 820-270C    | SHANK NO-TILL 3/4             |                     |
| 2    | 599-117D    | SPACER BUSHING                |                     |
| 3    | 804-093C    | WASHER FLAT 3/4 HARD ASTMF436 |                     |
| 4    | 802-068C    | HHCS 3/4-10X4 GR5             |                     |
| 5    | 803-026C    | NUT LOCK 3/4-10 PLT           |                     |
| 6    | 802-060C    | HHCS 5/8-11X4 GR5             |                     |
| 7    | 803-024C    | NUT LOCK 5/8-11 PLT           |                     |
| 8    | 598-045D    | RETAINER CLIP 3/4" NT         |                     |
| 9    | 812-654C    | NO TILL WEAR SHIN - CHROME    |                     |
| 10   | 598-029H    | SHANK HOLDER 3/4              |                     |
| 11   | 802-082C    | HHCS 1/2-13X1 3/4 GR5 FTHD    |                     |
| 12   | 803-019C    | NUT LOCK 1/2-13 PLT           |                     |
| 13   | 805-357C    | PIN SPIROL 1/2 X 1 3/4        |                     |
| 14   | 598-143A    | SHANK AND SHIN 3/4" NO TILL   | Includes items 1-13 |
| 15   | 802-487C    | HHCS 3/4-10X6 GR8             |                     |
| 16   | 804-023C    | WASHER LOCK SPRING 3/4 PLT    |                     |
| 17   | 803-027C    | NUT HEX 3/4-10 PLT            |                     |
| 18   | 812-652C    | 4" NO TILL POINT - CHROME     |                     |
| 19   | 812-653C    | 10" NO TILL POINT - CHROME    |                     |

Great Plains  
**1 1/4" Shank & Shin Assembly**

**Section 4: Shanks & Coulters**

Applies to Models: VT1520

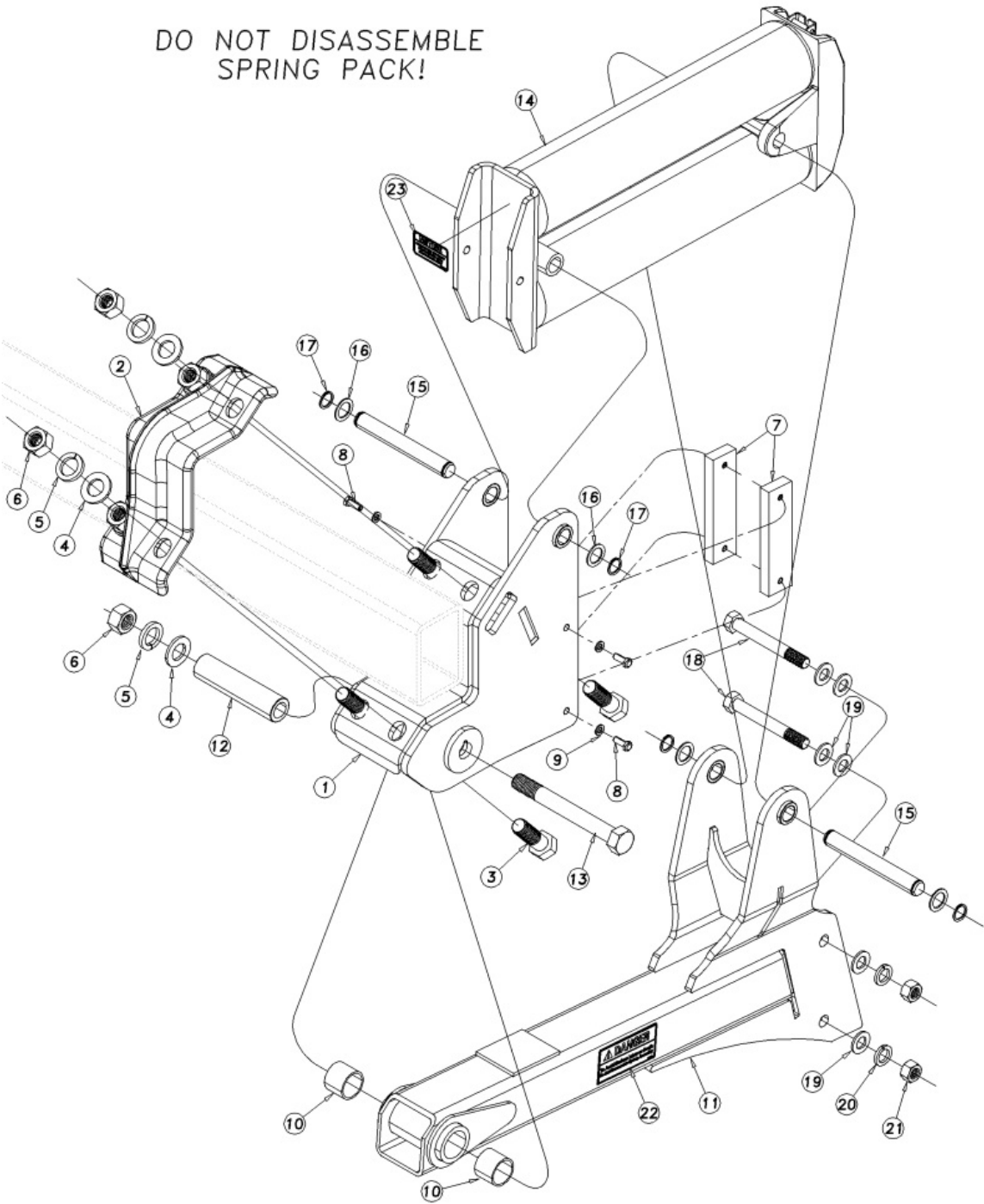


**1 1/4" Shank & Shin Assembly**

Applies to Models: VT1520

| Ref. | Part No.    | Part Description               | Comments            |
|------|-------------|--------------------------------|---------------------|
|      | dwgTP-77014 | Image No.                      |                     |
| 1    | 598-099H    | SHANK HOLDER 1 1/4             |                     |
| 2    | 802-487C    | HHCS 3/4-10X6 GR8              |                     |
| 3    | 804-093C    | WASHER FLAT 3/4 HARD ASTM F436 |                     |
| 4    | 804-023C    | WASHER LOCK SPRING 3/4 PLT     |                     |
| 5    | 803-013C    | NUT LOCK 3/8-16 PLT            |                     |
| 6    | 820-269C    | SHANK STRAIGHT 1 1/4           |                     |
| 7    | 599-143D    | SPACER BUSHING                 |                     |
| 8    | 802-068C    | HHCS 3/4-10X4 GR5              |                     |
| 9    | 803-026C    | NUT LOCK 3/4-10 PLT            |                     |
| 10   | 802-060C    | HHCS 5/8-11X4 GR5              |                     |
| 11   | 803-024C    | NUT LOCK 5/8-11 PLT            |                     |
| 12   | 598-017H    | WEAR SHIN RETAINER 1 1/4 STRT  |                     |
| 13   | 802-130C    | HHCS 1/2-13X2 1/2 GR5          |                     |
| 14   | 804-113C    | WASHER FLAT 1/2 USS HARD PLT   |                     |
| 15   | 803-169C    | NUT HEX FLG LOCK 1/2-13 PLT    |                     |
| 16   | 820-284C    | WEAR SHIN 1 1/4" STRAIGHT      |                     |
| 17   | 598-018A    | SHANK AND SHIN 1 1/4 STRAIGHT  | Includes items 1-16 |
| 18   | 820-280C    | OBS RPB Y 820-838C             |                     |
| 19   | 820-282C    | OBS RPB Y 820-835C             |                     |
| 20   | 820-277C    | OBS RPB Y 820-837C             |                     |
| 21   | 820-279C    | OBS RPB Y 820-836C             |                     |

Applies to Models: VT1520



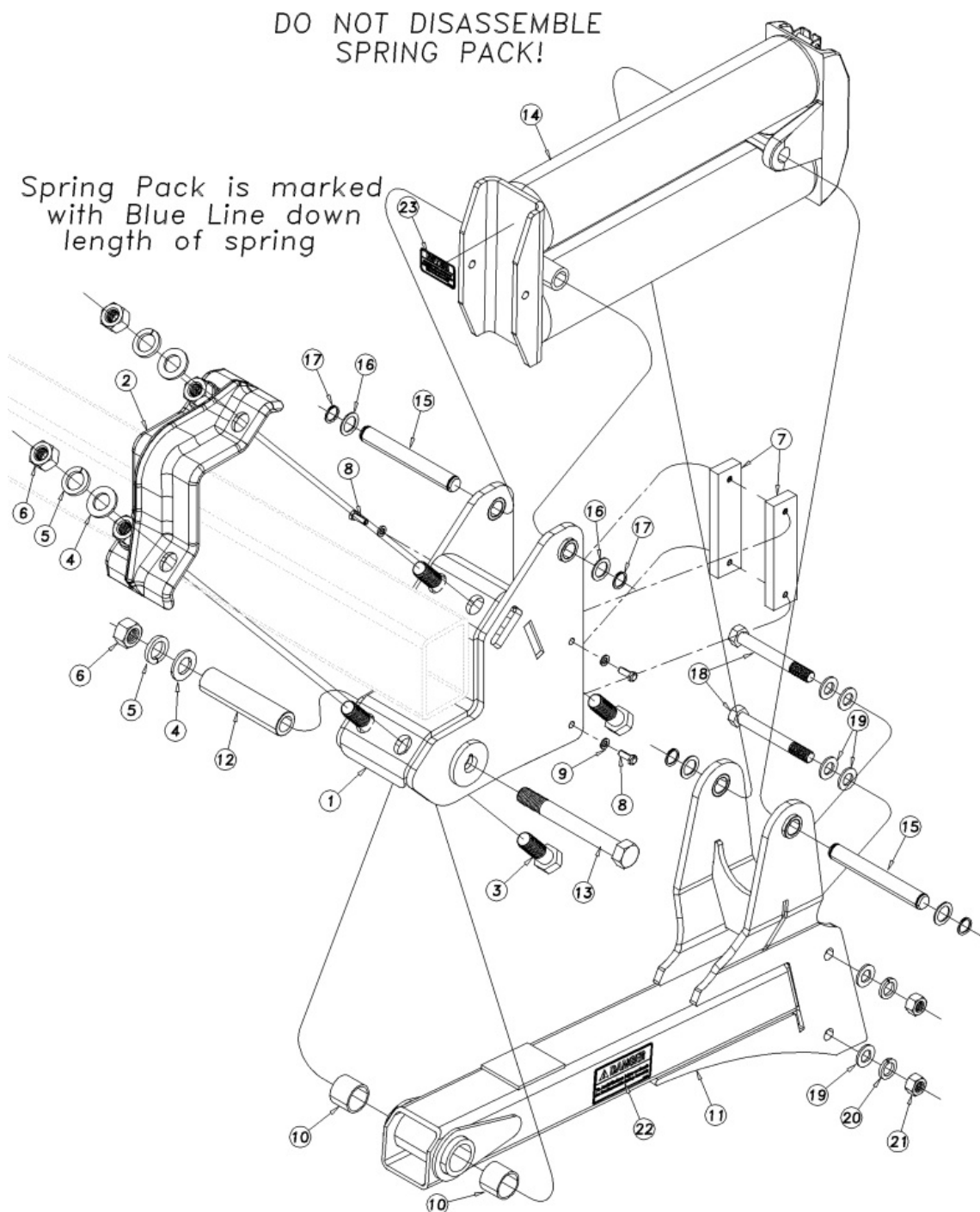
**Standard Auto Reset Shank Mount Assembly**

Applies to Models: VT1520

| Ref. | Part No.    | Part Description               | Comments                        |
|------|-------------|--------------------------------|---------------------------------|
|      | dwgTP-77010 | Image No.                      |                                 |
| 1    | 598-100H    | SHANK MOUNT SPRING RESET       |                                 |
| 2    | 812-470C    | MOUNT CLAMP CASTING            |                                 |
| 3    | 802-345C    | HHCS 1-8X3 GR8                 |                                 |
| 4    | 804-306C    | WASHER FLAT 1 HARD PLT         |                                 |
| 5    | 804-027C    | WASHER LOCK SPRING 1 PLT       |                                 |
| 6    | 803-031C    | NUT HEX 1-8 PLT                |                                 |
| 7    | 837-006C    | SHANK WEAR BLOCK               |                                 |
| 8    | 802-017C    | HHCS 3/8-16X1 GR5              |                                 |
| 9    | 804-013C    | WASHER LOCK SPRING 3/8 PLT     |                                 |
| 10   | 817-987C    | SLEEVE BEARING 1 5/8 I.D.      |                                 |
| 11   | 598-101H    | SPRING RESET SHANK PIVOT ARM   |                                 |
| 12   | 598-061D    | PIVOT TUBE                     |                                 |
| 13   | 802-756C    | HHCS 1-8X8 5/8 GR5 SPTHD PLT   |                                 |
| 14   | 598-104S    | SPRING RESET SPRING SUBASSY    | DO NOT DISASSEMBLE SPRING PACK. |
| 15   | 598-059D    | PIN - 1IN DIA.                 |                                 |
| 16   | 804-192C    | WASHER MACH 1.5X1.00X.075      |                                 |
| 17   | 800-085C    | SNAP RING EXT 1 HEAVY          |                                 |
| 18   | 802-487C    | HHCS 3/4-10X6 GR8              |                                 |
| 19   | 804-093C    | WASHER FLAT 3/4 HARD ASTM F436 |                                 |
| 20   | 804-023C    | WASHER LOCK SPRING 3/4 PLT     |                                 |
| 21   | 803-027C    | NUT HEX 3/4-10 PLT             |                                 |
| 22   | 844-266C    | DECAL DANGER SPRING PACKS      |                                 |
| 23   | 844-451C    | DECAL - SPRING PACK STANDARD   |                                 |

## Hi-Protection Auto Rest Shank Mount Assembly

Applies to Models: VT1520



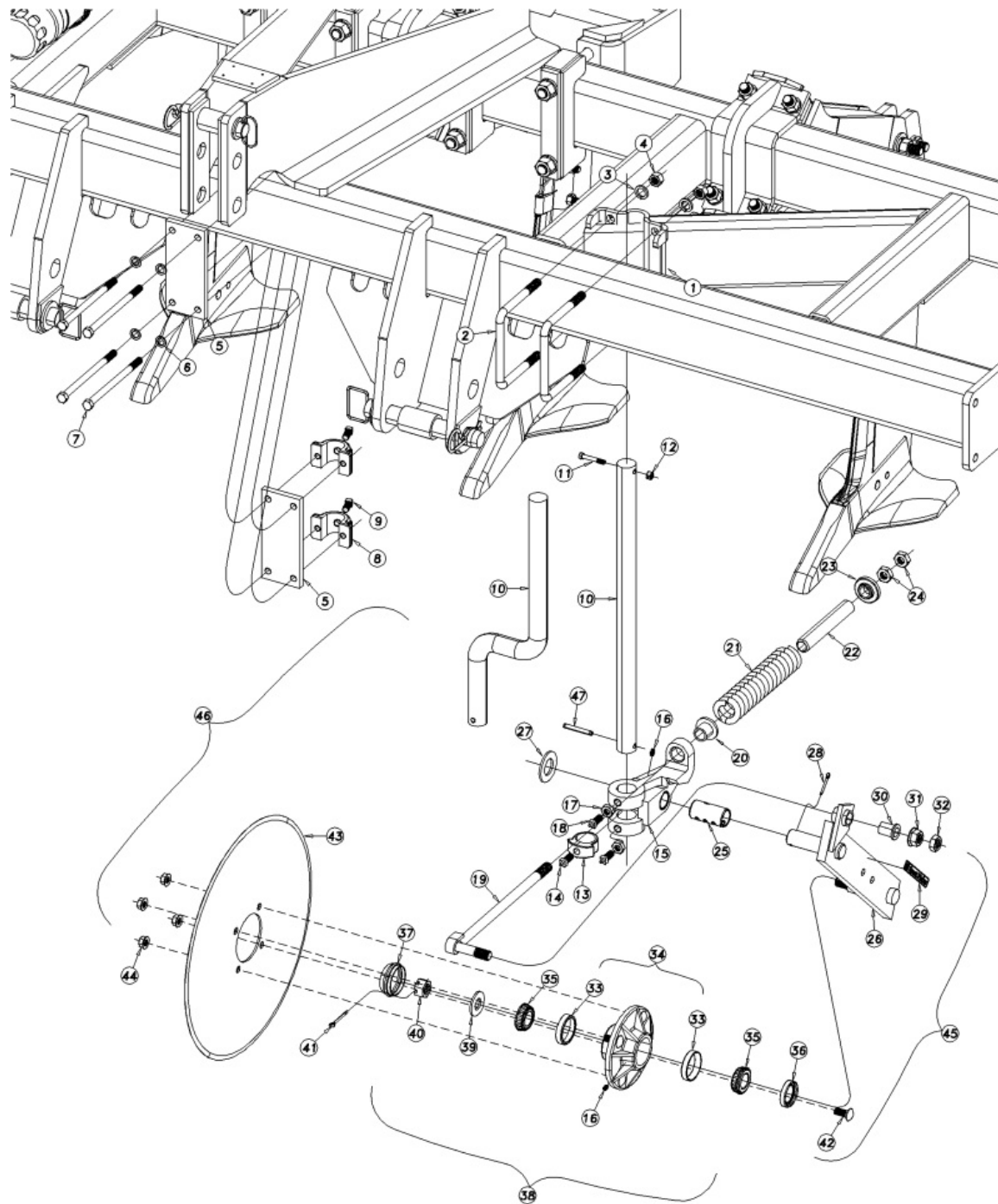


***Hi-Protection Auto Rest Shank Mount Assembly***

Applies to Models: VT1520

| Ref. | Part No.    | Part Description               | Comments                       |
|------|-------------|--------------------------------|--------------------------------|
|      | dwgTP-77029 | Image No.                      |                                |
| 1    | 598-100H    | SHANK MOUNT SPRING RESET       |                                |
| 2    | 812-470C    | MOUNT CLAMP CASTING            |                                |
| 3    | 802-345C    | HHCS 1-8X3 GR8                 |                                |
| 4    | 804-306C    | WASHER FLAT 1 HARD PLT         |                                |
| 5    | 804-027C    | WASHER LOCK SPRING 1 PLT       |                                |
| 6    | 803-031C    | NUT HEX 1-8 PLT                |                                |
| 7    | 837-006C    | SHANK WEAR BLOCK               |                                |
| 8    | 802-017C    | HHCS 3/8-16X1 GR5              |                                |
| 9    | 804-013C    | WASHER LOCK SPRING 3/8 PLT     |                                |
| 10   | 817-987C    | SLEEVE BEARING 1 5/8 I.D.      |                                |
| 11   | 598-101H    | SPRING RESET SHANK PIVOT ARM   |                                |
| 12   | 598-061D    | PIVOT TUBE                     |                                |
| 13   | 802-756C    | HHCS 1-8X8 5/8 GR5 SPTHD PLT   |                                |
| 14   | 598-148S    | HI-PROTECT AUTO SPRING PACK    | DO NOT DISASSEMBLE SPRING PACK |
| 15   | 598-059D    | PIN - 1IN DIA.                 |                                |
| 16   | 804-192C    | WASHER MACH 1.5X1.00X.075      |                                |
| 17   | 800-085C    | SNAP RING EXT 1 HEAVY          |                                |
| 18   | 802-487C    | HHCS 3/4-10X6 GR8              |                                |
| 19   | 804-093C    | WASHER FLAT 3/4 HARD ASTM F436 |                                |
| 20   | 804-023C    | WASHER LOCK SPRING 3/4 PLT     |                                |
| 21   | 803-027C    | NUT HEX 3/4-10 PLT             |                                |
| 22   | 844-266C    | DECAL DANGER SPRING PACKS      |                                |
| 23   | 844-452C    | DECAL SPRING PACK HI-PROTECT   |                                |

Applies to Models: VT1520

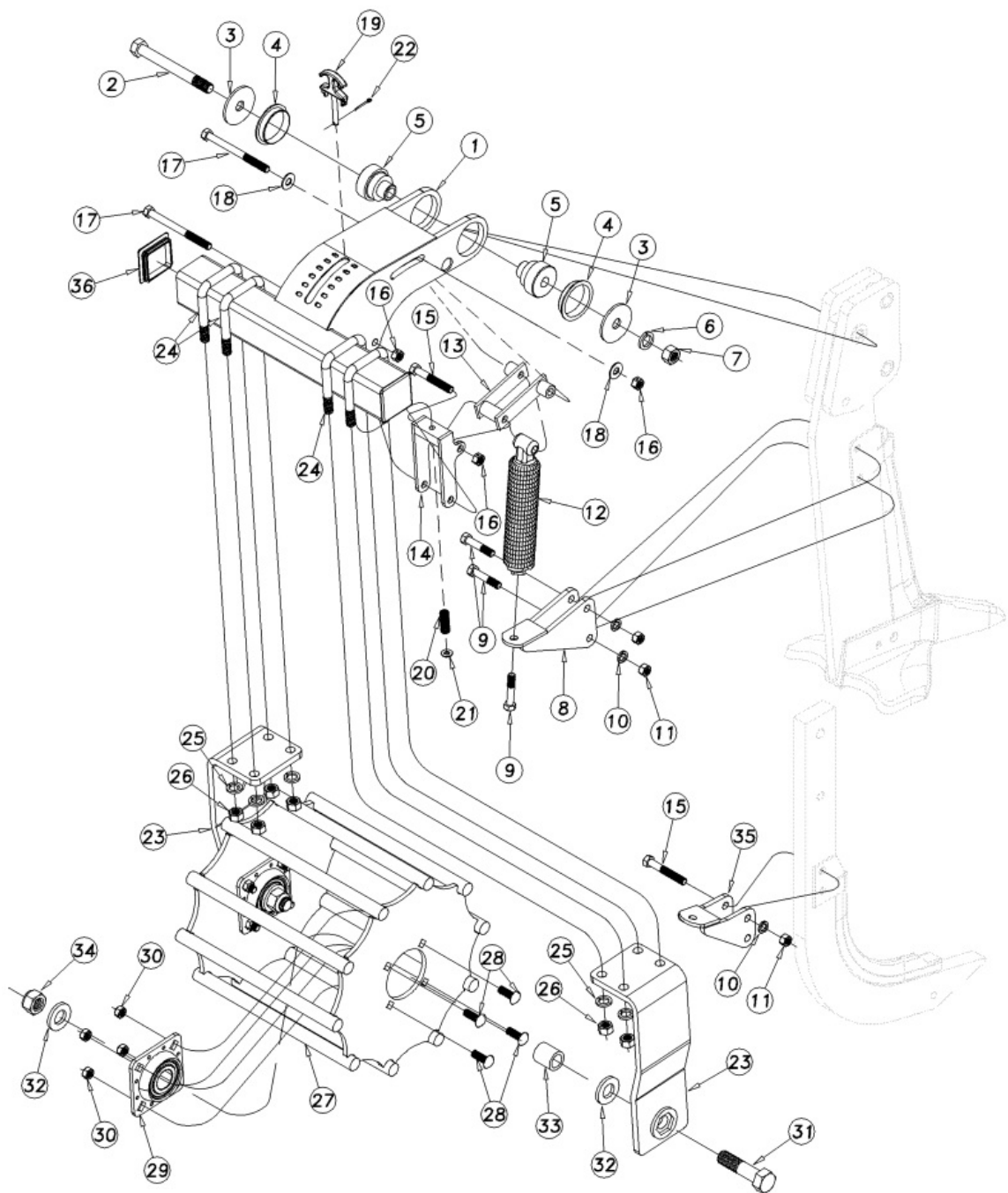


Applies to Models: VT1520

| Ref. | Part No.    | Part Description               | Comments                  |
|------|-------------|--------------------------------|---------------------------|
|      | dwgTP-77016 | Image No.                      |                           |
| 1    | 149-584D    | COULTER CLAMP 6H X 4W          |                           |
| 2    | 806-016C    | U-BOLT 5/8-11 X 6 1/32 X 5 3/4 |                           |
| 3    | 804-022C    | WASHER LOCK SPRING 5/8 PLT     |                           |
| 4    | 803-021C    | NUT HEX 5/8-11 PLT             |                           |
| 5    | 204-039D    | CLAMP PLT 6 BAR                |                           |
| 6    | 804-015C    | WASHER LOCK SPRING 1/2 PLT     |                           |
| 7    | 802-047C    | HHCS 1/2-13X6 GR5              |                           |
| 7    | 802-289C    | HHCS 1/2-13X8 GR5              |                           |
| 8    | 204-072D    | CLAMP SHANK 1 1/2 DIA          |                           |
| 9    | 801-054C    | SCREW SET SQ HD 1/2-13X1       |                           |
| 10   | 204-013D    | SHANK 1 1/2D X 26 FERT COULT   |                           |
| 10   | 820-132C    | 1 1/2 X 22 OFFSET SHANK        | Used on 24" Spacing Only  |
| 11   | 802-115C    | HHCS 5/16-18X2 GR5             |                           |
| 12   | 803-011C    | NUT LOCK 5/16-18 PLT           |                           |
| 13   | 149-044D    | COULTER STOP 30 DEGREE         |                           |
| 14   | 801-040C    | SCREW SQ HD 5/8-11 X 1 CUP PT  |                           |
| 15   | 204-419S    | SWIVEL COULTR CASTING ASSY, R  |                           |
| 16   | 800-001C    | GREASE ZERK STRAIGHT 1/4-28    |                           |
| 17   | 803-023C    | NUT HEX JAM 5/8-11 PLT         |                           |
| 18   | 801-083C    | SCREW SET 5/8-11X1 1/2 CUP     |                           |
| 19   | 204-075H    | COULTER SPRING ROD WLDMT       |                           |
| 20   | 817-029C    | BUSHING COULTER CASTING        |                           |
| 21   | 149-559D    | SPRING 2.25 O.D. X .5 COIL     |                           |
| 22   | 204-107D    | SPRING ROD SLEEVE 1 1/8 OD     |                           |
| 23   | 149-558D    | COULTER SPRING WASHER          |                           |
| 24   | 803-048C    | NUT HEX JAM 3/4-10 PLT         |                           |
| 25   | 890-389C    | BUSHING 1.50ODX1.25IDX2.94     |                           |
| 26   | 149-181E    | FERT COULTER SWING ARM         |                           |
| 27   | 804-039C    | WASHER FLAT 1 1/4 SAE PLT      |                           |
| 28   | 805-021C    | PIN COTTER 1/4 X 2 PLT         |                           |
| 29   | 838-482C    | DECAL GP PLANTING COMPONENTS   |                           |
| 30   | 817-051C    | SWING ARM BUSHING              |                           |
| 31   | 803-181C    | NUT HEX FLANGE LOCK 3/4-10 PLT |                           |
| 32   | 803-048C    | NUT HEX JAM 3/4-10 PLT         |                           |
| 33   | 822-020C    | BRG CUP LM-67010               |                           |
| 34   | 200-039V    | COULTER HUB & CUP ASSY         | Includes items 16 & 33    |
| 35   | 822-021C    | BRG CONE 1.25ID LM-67048       |                           |
| 36   | 816-009C    | OIL SEAL DOUBLE LIP            |                           |
| 37   | 200-001D    | HUB GREASE CAP                 |                           |
| 38   | 204-379S    | COULTER HUB PACKAGE            | Includes items 34-37      |
| 39   | 804-055C    | WASHER SPINDLE - 7/8           |                           |
| 40   | 803-029C    | NUT HEX SLOTTED 7/8-14 PLT     |                           |
| 41   | 805-017C    | PIN COTTER 3/16 X 1 3/4 PLT    |                           |
| 42   | 802-214C    | RHSNB 1/2-13X1 1/4 GR5         |                           |
| 43   | 820-074C    | COULTER BLADE 20 FLUTED        |                           |
| 44   | 803-193C    | NUT HEX FLANGE 1/2-13 GR G PLT |                           |
| 45   | 204-689L    | VAN I 20" RH COULTER ASSY      | Includes items 13-42 & 44 |
| 46   | 598-072L    | SUBSOILER RH COULTER ASSY      | Includes items 13-45      |
| 47   | 805-043C    | PIN SPIROL 3/8X2 1/2 PLAIN     |                           |

Great Plains  
**Berm Conditioner Frame**

Applies to Models: VT1520



**Berm Conditioner Frame**

Applies to Models: VT1520

| Ref. | Part No.    | Part Description               | Comments                |
|------|-------------|--------------------------------|-------------------------|
|      | dwgTP-77018 | Image No.                      |                         |
| 1    | 599-041H    | BERM CONDITIONER FRAME         | 30" Spacing             |
| 1    | 599-073H    | BERM CONDITIONER FRAME         | 24" Spacing             |
| 2    | 802-816C    | HHCS 3/4-10X7 GR8              |                         |
| 3    | 599-087D    | WASHER 3/4X3 PLATED            |                         |
| 4    | 817-229C    | PLASTIC SLEEVE                 |                         |
| 5    | 599-095D    | PIVOT BUSHING                  |                         |
| 6    | 804-023C    | WASHER LOCK SPRING 3/4 PLT     |                         |
| 7    | 803-027C    | NUT HEX 3/4-10 PLT             |                         |
| 8    | 599-045H    | SPRING MOUNT                   | Used on No-Till Shanks  |
| 9    | 802-130C    | HHCS 1/2-13X2 1/2 GR5          |                         |
| 10   | 804-015C    | WASHER LOCK SPRING 1/2 PLT     |                         |
| 11   | 803-020C    | NUT HEX 1/2-13 PLT             |                         |
| 12   | 552-107V    | SPRING/PLUG (SHORT) SUB ASSY   |                         |
| 13   | 599-044H    | ADJUSTER LINK                  |                         |
| 14   | 599-043H    | ADJUSTER LINK                  |                         |
| 15   | 802-041C    | HHCS 1/2-13X3 1/2 GR5          |                         |
| 16   | 803-019C    | NUT LOCK 1/2-13 PLT            |                         |
| 17   | 802-047C    | HHCS 1/2-13X6 GR5              |                         |
| 18   | 804-017C    | WASHER FLAT 1/2 USS PLT        |                         |
| 19   | 812-302C    | CASTING - STAINLESS T-HANDLE   |                         |
| 20   | 807-172C    | SPRING COMP 5/8 OD X 1 3/4 LG  |                         |
| 21   | 804-012C    | WASHER FLAT 3/8 SAE PLT        |                         |
| 22   | 805-363C    | PIN COTTER 1/8 X 1             |                         |
| 23   | 540-121H    | REEL BRG HANGER SC             |                         |
| 24   | 806-183C    | U-BOLT 5/8-11X3 1/32X4 1/2 SPT |                         |
| 25   | 804-022C    | WASHER LOCK SPRING 5/8 PLT     |                         |
| 26   | 803-021C    | NUT HEX 5/8-11 PLT             |                         |
| 27   | 599-042H    | BERM CONDITIONER BASKET        | 30" Spacing             |
| 27   | 599-074H    | BERM CONDITIONER BASKET        | 24" Spacing             |
| 28   | 802-106C    | RHSNB 1/2-13X1 1/2 GR5         |                         |
| 29   | 822-293C    | BEARING FLG 1 1/2ID 5 IN SQ    |                         |
| 30   | 803-342C    | NUT HEX TOP LOCK 1/2-13 PLT    |                         |
| 31   | 802-073C    | HHCS 1-8X4 GR5                 |                         |
| 32   | 148-404D    | 1 HARDENED SPINDLE WASHER      |                         |
| 33   | 540-180D    | TUBE RND - 1 1/2 OD            |                         |
| 34   | 803-038C    | NUT HEX 1-8 NYLON INSERT PLT   |                         |
| 35   | 599-062H    | SPRING MOUNT STRAIGHT LEG      | Used on Straight Shanks |
| 36   | 837-333C    | PLASTIC END CAP - 3X3 TUBE     |                         |

# Part Number Index

| Part Number | Page   | Part Number | Page               | Part Number | Page                       |
|-------------|--------|-------------|--------------------|-------------|----------------------------|
| 117-059H    | 4      | 598-099H    | 14, 18             | 802-673C    | 10                         |
| 117-378D    | 4      | 598-100H    | 20, 22             | 802-756C    | 20, 22                     |
| 117-379D    | 4      | 598-101H    | 20, 22             | 802-816C    | 26                         |
| 119-281H    | 4      | 598-104S    | 20                 | 802-845C    | 12                         |
| 148-404D    | 26     | 598-141H    | 14                 | 803-006C    | 4                          |
| 149-044D    | 24     | 598-143A    | 16                 | 803-011C    | 24                         |
| 149-181E    | 24     | 598-148S    | 22                 | 803-013C    | 10, 18                     |
| 149-558D    | 24     | 599-041H    | 26                 | 803-014C    | 8                          |
| 149-559D    | 24     | 599-042H    | 26                 | 803-019C    | 16, 26                     |
| 149-584D    | 24     | 599-043H    | 26                 | 803-020C    | 4, 8, 26                   |
| 200-001D    | 24     | 599-044H    | 26                 | 803-021C    | 8, 10, 24, 26              |
| 200-039V    | 24     | 599-045H    | 26                 | 803-023C    | 24                         |
| 204-013D    | 24     | 599-062H    | 26                 | 803-024C    | 14, 16, 18                 |
| 204-039D    | 24     | 599-073H    | 26                 | 803-026C    | 14, 16, 18                 |
| 204-072D    | 24     | 599-074H    | 26                 | 803-027C    | 14, 16, 20, 22, 26         |
| 204-075H    | 24     | 599-087D    | 26                 | 803-029C    | 24                         |
| 204-107D    | 24     | 599-095D    | 26                 | 803-031C    | 14, 20, 22                 |
| 204-379S    | 24     | 599-117D    | 14, 16             | 803-038C    | 26                         |
| 204-419S    | 24     | 599-143D    | 14, 18             | 803-048C    | 24                         |
| 204-689L    | 24     | 800-001C    | 24                 | 803-169C    | 18                         |
| 248-518D    | 8      | 800-058C    | 12                 | 803-181C    | 24                         |
| 501-020D    | 4      | 800-085C    | 20, 22             | 803-193C    | 24                         |
| 540-121H    | 26     | 800-498C    | 8                  | 803-210C    | 12                         |
| 540-180D    | 26     | 801-005C    | 4                  | 803-229C    | 10                         |
| 552-107V    | 26     | 801-040C    | 24                 | 803-342C    | 26                         |
| 596-060A    | 4      | 801-054C    | 24                 | 804-006C    | 4                          |
| 596-099H    | 10     | 801-083C    | 24                 | 804-012C    | 26                         |
| 596-146S    | 10, 12 | 802-014C    | 8                  | 804-013C    | 8, 20, 22                  |
| 596-147H    | 12     | 802-017C    | 8, 20, 22          | 804-015C    | 4, 8, 24, 26               |
| 596-148H    | 10     | 802-041C    | 8, 26              | 804-017C    | 26                         |
| 596-185D    | 4      | 802-047C    | 24, 26             | 804-022C    | 8, 10, 24, 26              |
| 596-196H    | 4      | 802-051C    | 8                  | 804-023C    | 10, 14, 16, 18, 20, 22, 26 |
| 596-230D    | 12     | 802-060C    | 14, 16, 18         | 804-027C    | 14, 20, 22                 |
| 596-243K    | 10, 12 | 802-064C    | 10                 | 804-039C    | 24                         |
| 596-245H    | 4, 8   | 802-068C    | 14, 16, 18         | 804-055C    | 24                         |
| 596-246H    | 8      | 802-073C    | 26                 | 804-093C    | 14, 16, 18, 20, 22         |
| 596-247H    | 8      | 802-082C    | 16                 | 804-113C    | 18                         |
| 596-271D    | 4      | 802-082C    | 16                 | 804-192C    | 20, 22                     |
| 596-378D    | 8      | 802-106C    | 26                 | 804-306C    | 14, 20, 22                 |
| 596-379D    | 8      | 802-115C    | 24                 | 805-017C    | 24                         |
| 598-017H    | 18     | 802-130C    | 18, 26             | 805-021C    | 24                         |
| 598-018A    | 18     | 802-214C    | 24                 |             |                            |
| 598-029H    | 14, 16 | 802-216C    | 10                 |             |                            |
| 598-030A    | 14     | 802-224C    | 8                  |             |                            |
| 598-045D    | 16     | 802-289C    | 24                 |             |                            |
| 598-059D    | 20, 22 | 802-345C    | 14, 20, 22         |             |                            |
| 598-061D    | 20, 22 | 802-487C    | 14, 16, 18, 20, 22 |             |                            |
| 598-072L    | 24     |             |                    |             |                            |
| 598-073A    | 14     |             |                    |             |                            |

| Part Number    | Page          | Part Number        | Page   |
|----------------|---------------|--------------------|--------|
| 805-043C ..... | 24            | 833-399C .....     | 8      |
| 805-054C ..... | 10            | 833-600C .....     | 8      |
| 805-060C ..... | 4             | 833-654C .....     | 8      |
| 805-077C ..... | 4             | 833-670C .....     | 8      |
| 805-119C ..... | 4             | 837-006C .....     | 20, 22 |
| 805-167C ..... | 4             | 837-333C .....     | 26     |
| 805-168C ..... | 4             | 838-482C .....     | 6, 24  |
| 805-232C ..... | 4             | 838-597C .....     | 6      |
| 805-355C ..... | 10            | 838-615C .....     | 6      |
| 805-357C ..... | 16            | 843-183C .....     | 8      |
| 805-363C ..... | 26            | 844-266C .....     | 20, 22 |
| 805-489C ..... | 4             | 844-451C .....     | 20     |
| 806-016C ..... | 10, 24        | 844-452C .....     | 22     |
| 806-034C ..... | 4, 8          | 844-458C .....     | 6      |
| 806-069C ..... | 4, 8          | 844-459C .....     | 6      |
| 806-183C ..... | 26            | 844-463C .....     | 6      |
| 807-172C ..... | 26            | 844-674C .....     | 6      |
| 812-302C ..... | 26            | 848-398C .....     | 6      |
| 812-470C ..... | 14, 20,<br>22 | 848-507C .....     | 6      |
| 812-652C ..... | 16            | 848-510C .....     | 6      |
| 812-653C ..... | 16            | 848-511C .....     | 6      |
| 812-654C ..... | 16            | 848-512C .....     | 6      |
| 814-210C ..... | 12            | 848-517C .....     | 6      |
| 814-254C ..... | 10, 12        | 848-531C .....     | 6      |
| 814-533C ..... | 10, 12        | 858-105C .....     | 6      |
| 815-066C ..... | 12            | 890-005C .....     | 4      |
| 816-009C ..... | 24            | 890-389C .....     | 24     |
| 817-029C ..... | 24            | 890-875C .....     | 10     |
| 817-042C ..... | 4             | DWGTGP-69419 ..... | 8      |
| 817-051C ..... | 24            | dwgTP-77010 .....  | 20     |
| 817-229C ..... | 26            | dwgTP-77011 .....  | 14     |
| 817-516C ..... | 4             | dwgTP-77014 .....  | 18     |
| 817-987C ..... | 20, 22        | dwgTP-77015 .....  | 16     |
| 818-190C ..... | 6             | dwgTP-77016 .....  | 24     |
| 820-074C ..... | 24            | dwgTP-77018 .....  | 26     |
| 820-132C ..... | 24            | dwgTP-77022 .....  | 10     |
| 820-269C ..... | 18            | dwgTP-77023 .....  | 12     |
| 820-270C ..... | 16            | dwgTP-77026 .....  | 4      |
| 820-277C ..... | 18            | dwgTP-77029 .....  | 22     |
| 820-279C ..... | 18            | dwgTP-77178 .....  | 6      |
| 820-280C ..... | 18            |                    |        |
| 820-282C ..... | 18            |                    |        |
| 820-284C ..... | 18            |                    |        |
| 822-020C ..... | 24            |                    |        |
| 822-021C ..... | 24            |                    |        |
| 822-141C ..... | 12            |                    |        |
| 822-231C ..... | 12            |                    |        |
| 822-293C ..... | 26            |                    |        |

