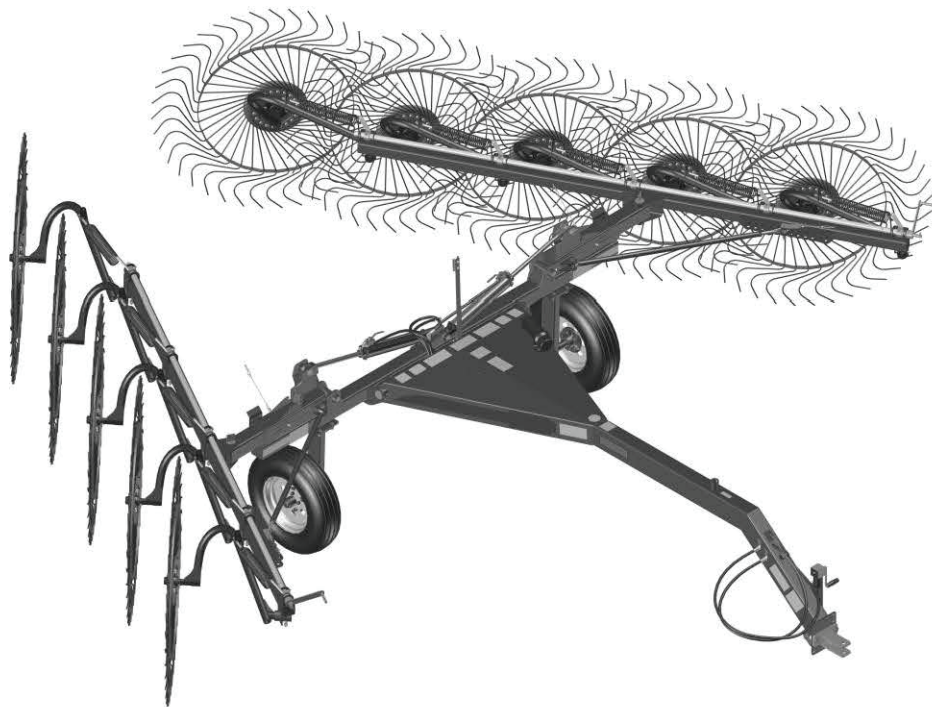


H&S

PARTS BOOK

3112 ACTION RAKE



Revision #06
Starting Ser. #713080

HSMFGC0120

PART#73463

Manufactured By
H&S MANUFACTURING CO., INC.
2608 S. HUME AVE. MARSHFIELD, WI 54449
(715) 387-3414 FAX (715) 384-8736

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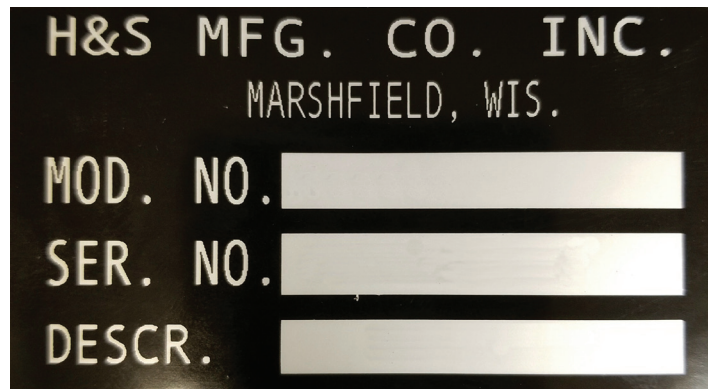
INSTRUCTIONS FOR ORDERING PARTS

All service parts should be ordered through your authorized H&S dealer. He will be able to give you faster service if you will provide them with the following:

1. Model & Serial Number - Both can be located on the left, rear main frame of your unit.
2. All references to left or right apply to the machine as viewed from the rear.
3. Parts should not be ordered from illustration only. Please order complete part number.
4. If your dealer has to order parts - give shipping instructions:

VIA truck - large pieces (please specify local truck lines)

VIA United Parcel Service (include full address)



H&S MFG. CO. INC.
MARSHFIELD, WIS.
MOD. NO.
SER. NO.
DESCR.

PLEASE RECORD NUMBERS FOR YOUR UNIT FOR QUICK REFERENCE

ABOUT IMPROVEMENTS

H&S IS CONTINUALLY STRIVING TO IMPROVE IT'S PRODUCTS

We must therefore, reserve the right to make improvements or changes whenever it becomes practical to do so, without incurring any obligation to make changes or additions to the equipment previously sold.

FIGURE 1 FRAME COMPONENTS

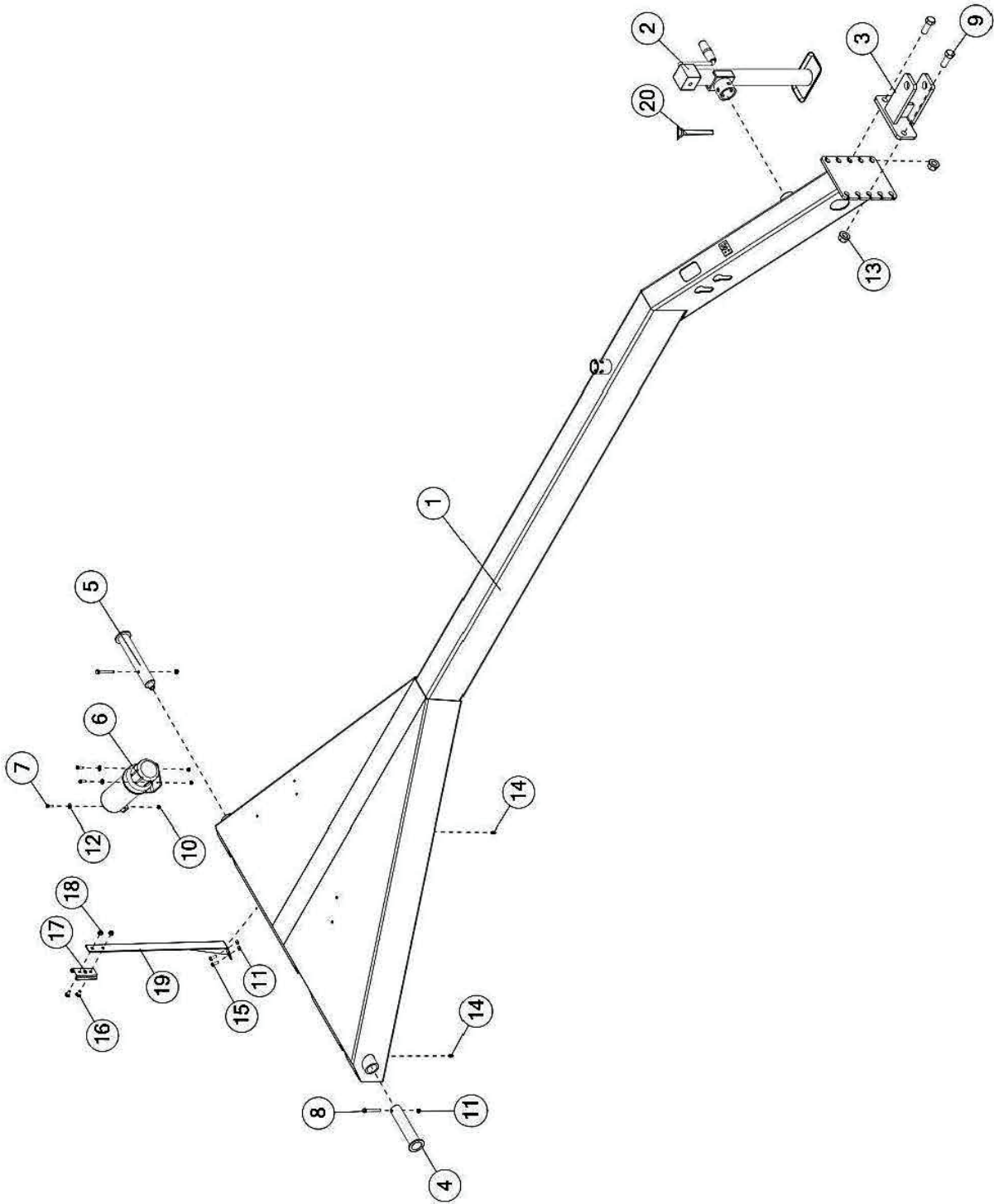


FIGURE 1

FRAME COMPONENTS

| <u>ITEM</u> | <u>QTY</u> | <u>PART#</u> | <u>DESCRIPTION</u> |
|-------------|------------|--------------|--|
| 1 | 1 | 71835 | POLE W/DECAL |
| 2 | 1 | BFR753A | SIDEWIND JACK |
| 3 | 1 | 10ERWE06 | CLEVIS |
| 4 | 1 | 10WR7 | PIVOT ARM PIN |
| 5 | 1 | 0240WE05 | PIVOT ARM PIN |
| 6 | 1 | S522 | MANUAL HOLDER |
| 7 | 3 | YBHH08100 | BOLT HEX, 1/4 X 3/4 G5 |
| 8 | 2 | YBHH10080 | BOLT HEX, 5/16 X 2-1/2 G5 |
| 9 | 2 | YBHH24018 | BOLT HEX 3/4-10 X 2 G8 |
| 10 | 3 | YNRL08005 | NUT HEX, REVERSIBLE-SIDE LOCK, 1/4-20 |
| 11 | 4 | YNRL10005 | NUT HEX, REVERSIBLE-SIDE LOCK, 5/16-18 |
| 12 | 3 | YWFL08005 | WASHER FLAT, 1/4 |
| 13 | 2 | YNFG24006 | NUT FLANGE, TOPLOCK 3/4-10 |
| 14 | 2 | G89 | STRAIGHT ZERK 1/4-28 |
| 15 | 2 | YBHH10105 | BOLT HEX, 5/16 X 3/4 G5 |
| 16 | 2 | YBCR10030 | BOLT CARR, 5/16-18 X 3/4 G5 |
| 17 | 1 | F97 | SMV BRACKET |
| 18 | 2 | YNSF10006 | NUT FLANGE, 5/16-18 |
| 19 | 1 | 75209 | BRACKET |
| 20 | 1 | 12N117 | JACK PIN |

FIGURE 2 SLIDER & COMPONENTS

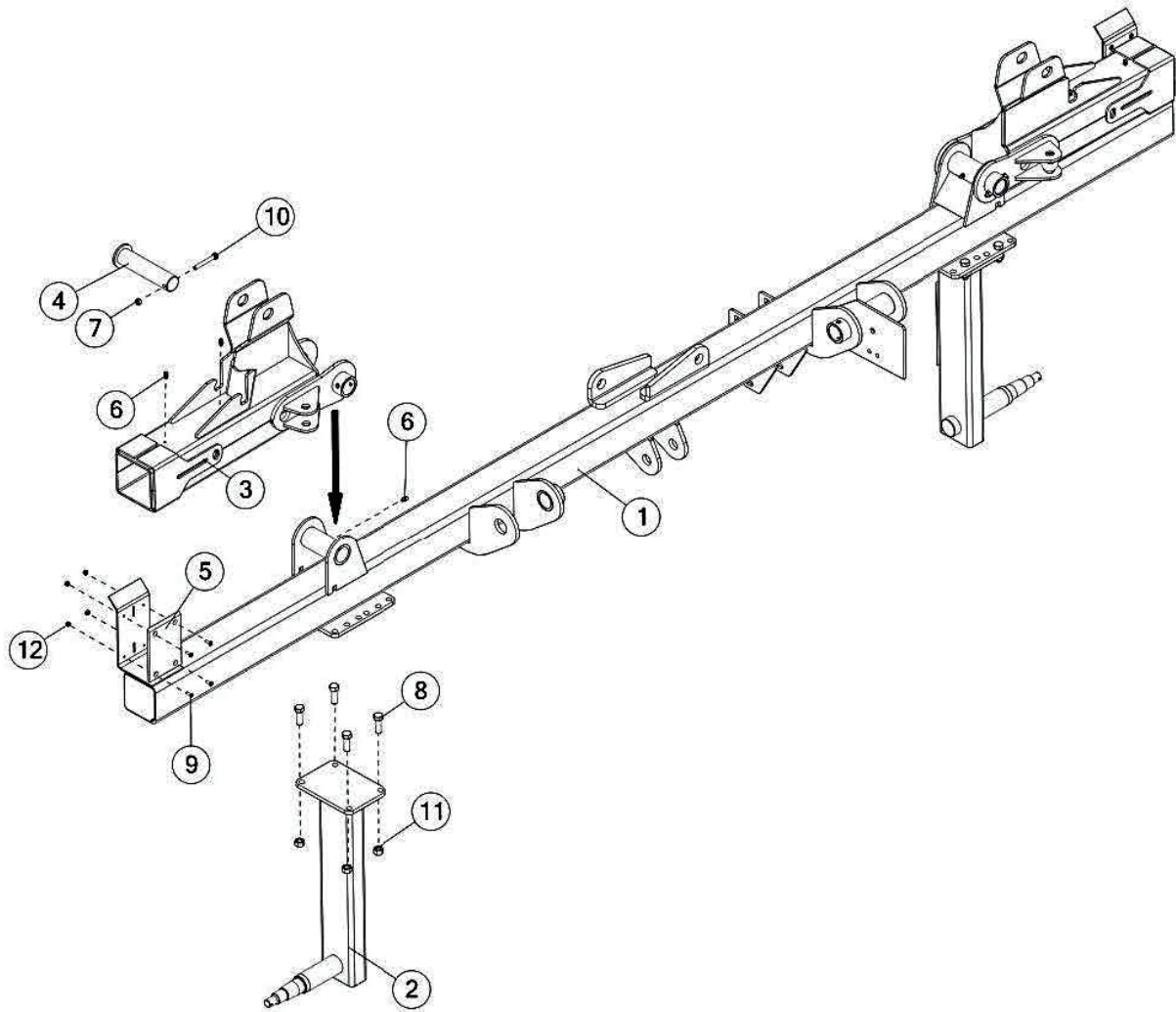


FIGURE 2

SLIDER & COMPONENTS

| <u>ITEM</u> | <u>QTY</u> | <u>PART#</u> | <u>DESCRIPTION</u> |
|-------------|------------|--------------|--|
| 1 | 1 | 71839 | FRAME W/DECAL |
| 2 | 2 | 71881 | AXLE RH |
| 3 | 1 | 72206 | SLIDER HOUSING RH |
| * | 1 | 72174 | SLIDER HOUSING LH |
| 4 | 2 | 72258 | PIVOT ARM PIN SHORT |
| 5 | 2 | 72241 | POLY HELPER PAD |
| 6 | 6 | G89 | STRAIGHT GREASE ZERK, 1/4 - 28 |
| 7 | 2 | YBHH10080 | BOLT HEX, 5/16 X 2-1/2 G5 |
| 8 | 8 | YBHH16030 | BOLT HEX, 1/2 X 1-1/2 G5 |
| 9 | 8 | YSFS64010 | FLAT HEAD SOCKET CAP SCREW |
| 10 | 2 | YNRL10005 | NUT HEX, REVERSIBLE-SIDE LOCK, 5/16 - 18 |
| 11 | 8 | YNRL16005 | NUT HEX, REVERSIBLE-SIDE LOCK, 1/2 - 13 |
| 12 | 8 | YNRL64005 | NUT HEX, REVERSIBLE-SIDE LOCK, #10-32 |

***MEANS NOT SHOWN**

FIGURE 3 HUB ASSEMBLY

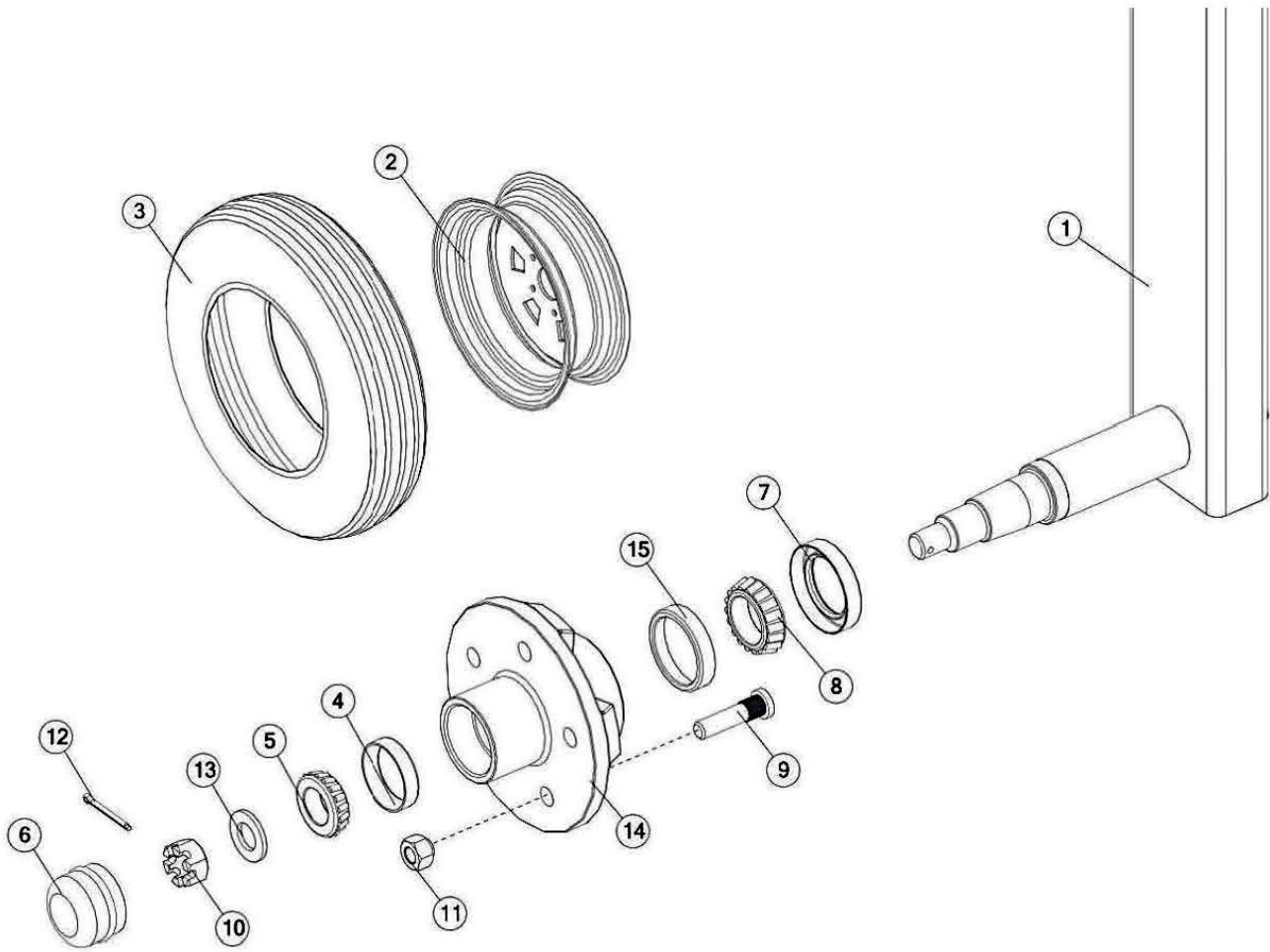


FIGURE 3

HUB ASSEMBLY

| <u>ITEM</u> | <u>QTY</u> | <u>PART#</u> | <u>DESCRIPTION</u> |
|--------------------|-------------------|---------------------|---------------------------|
| 1 | 2 | 71881 | AXLE RH |
| 2 | 2 | 8603 | RIM 15 X 5 5 BOLT |
| 3 | 2 | 8604 | TIRE 205/75D15 LRC |
| 4 | 2 | BFR275 | RACE |
| 5 | 2 | CAT10 | OUTER BEARING |
| 6 | 2 | CAT46 | CAP |
| 7 | 2 | CAT5 | GREASE SEAL |
| 8 | 2 | CAT6 | INNER BEARING |
| 9 | 10 | YBSD16018 | STUD BOLT |
| 10 | 2 | YNSL24010 | NUT HEX, SLOTTED, 3/4-16, |
| 11 | 10 | YNWL16005 | NUT WHEEL, 1/2-20 |
| 12 | 2 | YPCT05010 | COTTER PIN 5/32 X 1-1/2 |
| 13 | 2 | YWFL24010 | WASHER FLAT, 3/4 |
| 14 | 2 | CAT8 | HUB W/RACES |
| 15 | 2 | CAT7 | INNER RACE |

FIGURE 4 RAKE BEAM & COMPONENTS

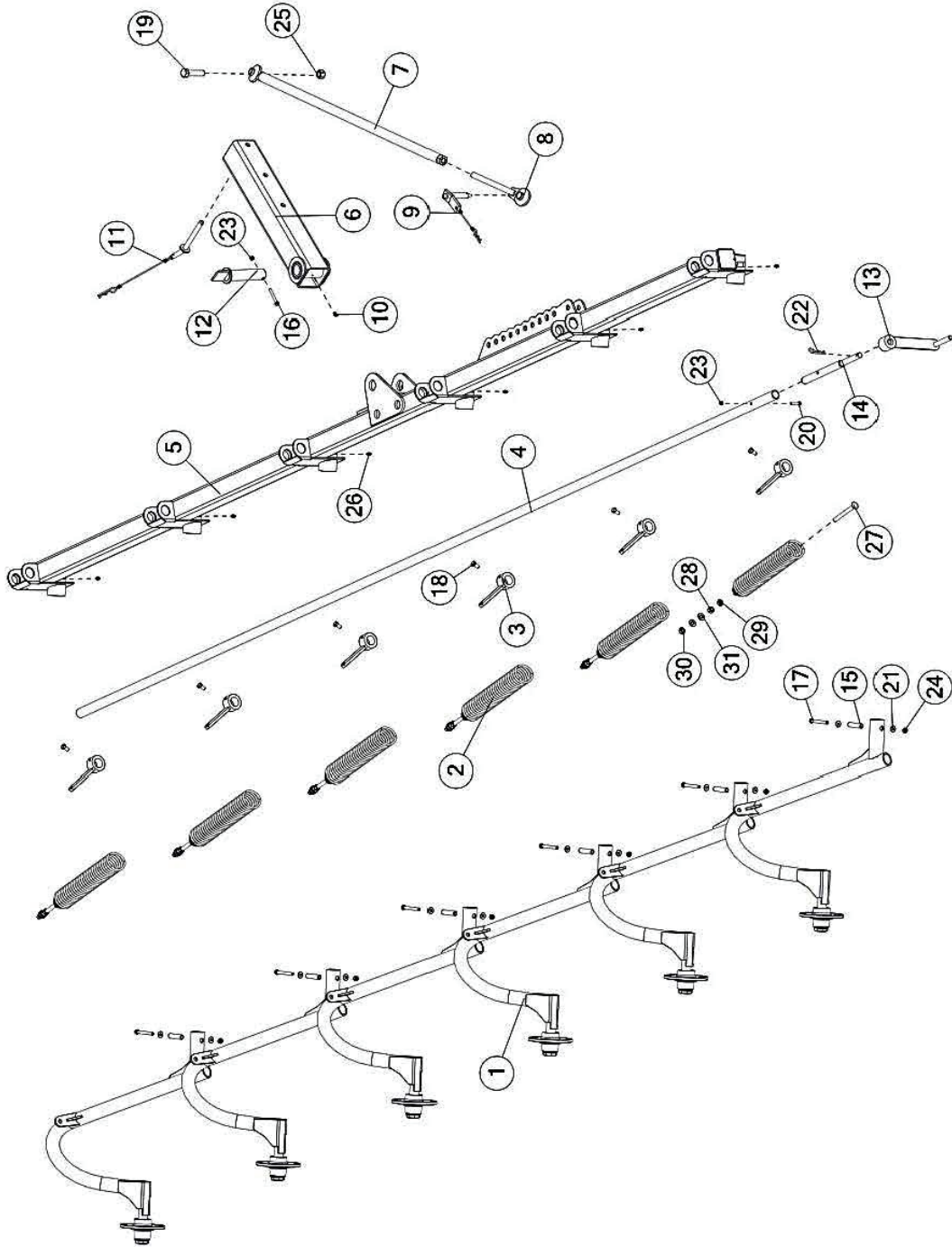


FIGURE 4

RAKE BEAM & COMPONENTS

| <u>ITEM</u> | <u>QTY</u> | <u>PART#</u> | <u>DESCRIPTION</u> |
|-------------|------------|--------------|--|
| 1 | 6 | 75877 | CANDY CANE RH |
| * | 6 | 75878 | CANDY CANE LH |
| 2 | 6 | 75862 | SPRING, EXTENSION, CANDY CANE |
| 3 | 6 | BFR431 | SPRING BRACKET LH |
| * | 6 | BFR430 | SPRING BRACKET RH |
| 4 | 6 | 66214 | LIFTING PIPE BACK |
| 5 | 1 | 72149 | RAKE BEAM RH |
| * | 1 | 72148 | RAKE BEAM LH |
| 6 | 2 | 10WR34 | SLIDE ARM |
| 7 | 2 | 10WR31 | LINK ROD |
| 8 | 2 | 10WR9 | ADJUSTING ROD |
| 9 | 2 | 10ERAS20 | LANYARD W/PIN |
| 10 | 2 | RG21 | GREASE ZERK, 45 DEGREE |
| 11 | 2 | 71903 | ARM SLIDER PIN |
| 12 | 2 | 10WR6 | RAKE BEAM PIN |
| 13 | 2 | 71886 | HANDLE |
| 14 | 2 | BFR427 | RAKE ARM LOCK-UP SHAFT |
| 15 | 12 | 66247 | SPACER, TUBE |
| 16 | 2 | YBHH10080 | BOLT HEX, 5/16 X 2-1/2 G5 |
| 17 | 12 | YBHH12155 | BOLT HEX, 3/8-16 X 3-1/4 G5 |
| 18 | 12 | YBHH14035 | BOLT HEX, 7/16 X 3/4 G5 |
| 19 | 2 | YBHH24050 | BOLT HEX, 3/4 X 3 G5 |
| 20 | 2 | YBHH10025 | BOLT HEX, 5/16-18 X 1-1/2 G2 |
| 21 | 24 | YWFL10005 | WASHER FLAT, 5/16 |
| 22 | 2 | YPHR02010 | HAIR PIN |
| 23 | 4 | YNRL10005 | NUT HEX, REVERSIBLE-SIDE LOCK, 5/16-18 |
| 24 | 12 | YNRL12005 | NUT HEX, REVERSIBLE-SIDE LOCK, 3/8-16 |
| 25 | 2 | YNRL24005 | NUT HEX, REVERSIBLE-SIDE LOCK, 3/4-10 |
| 26 | 12 | G89 | STRAIGHT GREASE ZERK, 1/4 - 28 |
| 27 | 12 | YBCR16060 | BOLT CARR, 1/2-13 X 7.00 G5 |
| 28 | 12 | YNHX16005 | NUT HEX, 1/2-13 |
| 29 | 12 | YNJM16005 | NUT JAM, 1/2-13 |
| 30 | 12 | YNNY16005 | NUT HEX, 1/2-13 |
| 31 | 24 | YWFL16010 | WASHER FLAT, 1/2 |

*MEANS NOT SHOWN

FIGURE 5 RAKE WHEEL ASSEMBLY

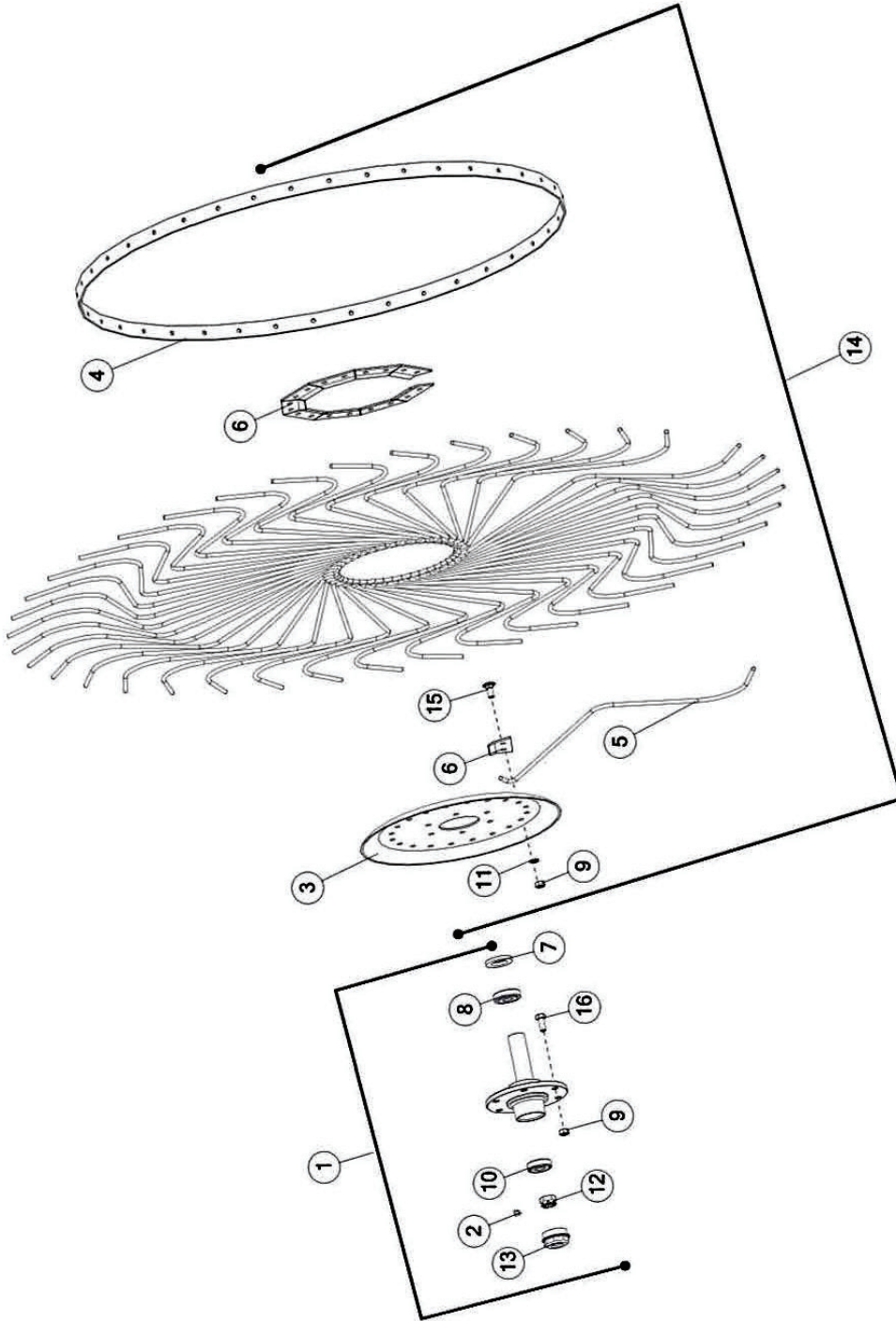


FIGURE 5 RAKE WHEEL ASSEMBLY

| <u>ITEM</u> | <u>QTY</u> | <u>PART#</u> | <u>DESCRIPTION</u> |
|-------------|------------|--------------|-------------------------------------|
| 1 | 10 | 1081 | RAKE WHEEL HUB COMPLETE AND SPINDLE |
| 2 | 10 | 1088 | RETAINING CLIP |
| 3 | 10 | FR71 | RAKE WHEEL CENTER |
| 4 | 10 | FR72 | RAKE WHEEL OUTER RING |
| 5 | 400 | FR73 | RAKE WHEEL TOOTH, 60 |
| 6 | 100 | FR74 | RAKE TOOTH CLIP |
| 7 | 10 | T163 | SEAL |
| 8 | 10 | 600012 | INNER BEARING AND RACE |
| 9 | 260 | YNHX76015 | NUT HEX, M10-1.5 |
| 10 | 10 | 600014 | OUTER BEARING AND RACE |
| 11 | 200 | YWLO76015 | WASHER LOCK, M10 |
| 12 | 10 | T172 | NUT HEX, M18 - 1.5 G2 |
| 13 | 10 | T173 | CAP |
| 14 | 5 | FR70 | RAKE WHEEL RH |
| * | 5 | FR69 | RAKE WHEEL LH |
| 15 | 200 | YBCR76005 | BOLT CARR, M10 |
| 16 | 60 | YBHH76015 | BOLT HEX, M10 - 1.5 |

*MEANS NOT SHOWN

FIGURE 6 OPTIONAL - KICKER WHEEL

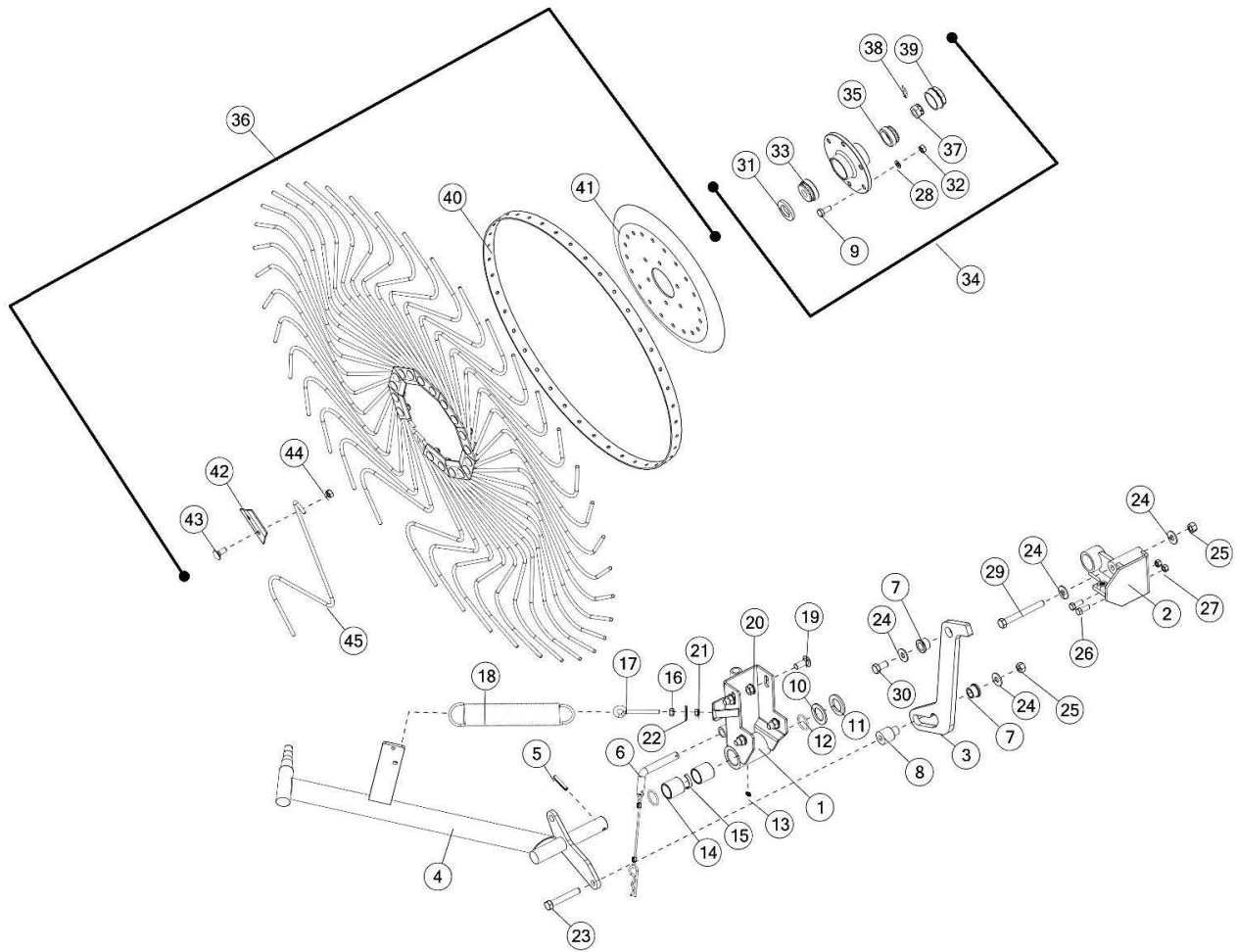


FIGURE 6

OPTIONAL - KICKER WHEEL

| <u>ITEM</u> | <u>QTY</u> | <u>PART#</u> | <u>DESCRIPTION</u> |
|-------------|------------|--------------|--|
| 1 | 1 | 0240WE04 | KICKER MOUNT |
| 2 | 1 | 0240WE07 | KICKER STOP |
| 3 | 1 | 0240HF03 | KICKER LEVER LINK FRAME PIVOT |
| 4 | 1 | 0240WE03 | KICKER ARM |
| 5 | 1 | YPEX10015 | EXPANSION PIN, 5/16 X 1-3/4 |
| 6 | 1 | 10ERAS08 | LANYARD W/PIN |
| 7 | 2 | 8579 | POLY PIVOT BEARING |
| 8 | 1 | 0240TU04 | KICKER PIVOT SPACER LOWER |
| 9 | 6 | YBHH76015 | BOLT, M10-1.5 |
| 10 | 1 | BFR221 | POLY WASHER |
| 11 | 1 | BFR229 | WASHER |
| 12 | 2 | S99 | O-RING |
| 13 | 1 | G89 | STRAIGHT GREASE ZERK, 1/4 - 28 |
| 14 | 2 | G16 | BRONZE BUSHING 1-1/2 X 1-1/4 X 1-1/2 |
| 15 | 1 | BFR230 | BEARING SPACER |
| 16 | 1 | YNHX10005 | NUT HEX, 5/16 G2 |
| 17 | 1 | YBTE10030 | TURNED EYE BOLT, 5/16 X 3 |
| 18 | 1 | BFR110 | KICKER WHEEL SPRING |
| 19 | 4 | YBCR16015 | BOLT CARR, 1/2 X 1-1/4 G5 |
| 20 | 4 | YNSF16005 | NUT HEX, SERRATED FLANGED-LOCK, 1/2-13 |
| 21 | 1 | YNNY10005 | NUT HEX, NYLON LOCKNUT, 5/16-18 |
| 22 | 1 | YWFL10010 | WASHER FLAT, 5/16 |
| 23 | 1 | YBHH16120 | BOLT HEX, 1/2 X 3-1/4 G5 |
| 24 | 4 | YWFL16005 | WASHER, FLAT, 1/2 |
| 25 | 1 | YNRL16005 | NUT HEX, REVERSIBLE-SIDE LOCK, 1/2-13 |
| 26 | 2 | YBHH12010 | BOLT HEX, 3/8 X 1 G5 |
| 27 | 2 | YNRL12005 | NUT HEX, REVERSIBLE-SIDE LOCK, 3/8-16 |
| 28 | 6 | YWLO76015 | WASHER, LOCK, M10 |
| 29 | 1 | YBHH16140 | BOLT HEX, 1/2 X 4-1/2 G5 |
| 30 | 1 | YBHH16010 | BOLT HEX, 1/2 X 1 G5 |
| 31 | 1 | T163 | SEAL |
| 32 | 6 | YBHH76015 | BOLT, M10-1.5 |
| 33 | 1 | 600012 | INNER BEARING AND RACE |
| 34 | 1 | 1081 | RAKE WHEEL HUB AND SPINDLE |
| 35 | 1 | 600014 | BEARING AND RACE |
| 36 | 1 | 10WR17 | RAKE WHEEL LH |
| 37 | 1 | T172 | NUT HEX, M18 - 1.5 G2 |
| 38 | 1 | 1088 | RETAINING CLIP |
| 39 | 1 | T173 | CAP |
| 40 | 1 | T177A | RAKE WHEEL OUTER RING |
| 41 | 1 | FR71 | RAKE WHEEL CENTER |
| 42 | 10 | FR74 | RAKE TOOTH CLIP |
| 43 | 20 | YBCR76005 | BOLT CARR, M10 |
| 44 | 20 | YNHX76015 | NUT HEX, M10-1.5 |
| 45 | 10 | 10WR42 | RAKE WHEEL TOOTH, 49 |

FIGURE 7 HYDRAULICS

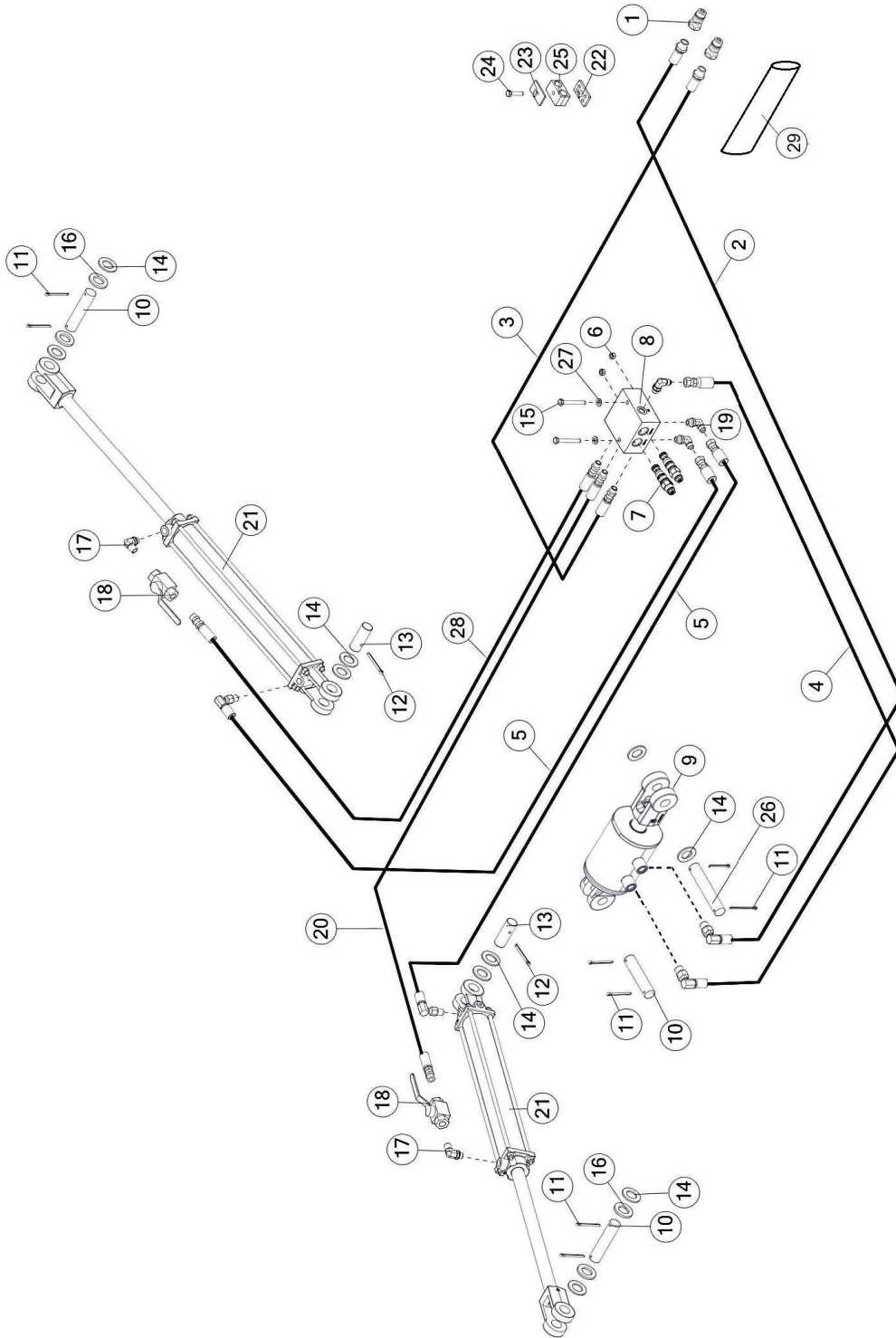


FIGURE 7 HYDRAULICS

| <u>ITEM</u> | <u>QTY</u> | <u>PART#</u> | <u>DESCRIPTION</u> |
|-------------|------------|--------------|---|
| 1 | 2 | 67148 | FTG, ST, 8ORB, QUICK COUPLER TIP |
| 2 | 1 | 70095 | HSASSM, HYD, 6, 214.0, 1/2 ORB, 1/2 ORB |
| 3 | 1 | 70096 | HYD HOSE, 6, 214IN |
| 4 | 1 | 70097 | HYD HOSE, 6, 20IN |
| 5 | 2 | 70094 | HYD HOSE, 6, 34IN |
| 6 | 2 | YNRL10005 | NUT HEX, REVERSIBLE-SIDE LOCK, 5/16-18 |
| 7 | 2 | 66920 | HYD VALVE, COUNTERBALANCE |
| 8 | 1 | 60426 | HYD MANIFOLD |
| 9 | 1 | 56611 | HYD CYLINDER, REPHASE |
| * | 1 | 56975 | SEAL KIT |
| 10 | 3 | LW55 | CYLINDER PIN |
| 11 | 8 | YPCT06020 | COTTER PIN, 3/16 X 2 |
| 12 | 2 | YPCT07005 | COTTER PIN, 7/32 X 2 |
| 13 | 2 | 23N107 | CYLINDER PIN |
| 14 | 10 | 16SV136 | SHIM |
| 15 | 2 | YBHH10080 | BOLT HEX, 5/16 X 2-1/2 G5 |
| 16 | 2 | BFR33 | SHIM |
| 17 | 2 | 70113 | FITTING, 90, 9/16ORB, 3/8NPT |
| 18 | 2 | 59235 | BALL VALVE, HIGH PRESSURE |
| 19 | 3 | CHM268 | ELBOW (6 C50X-S) |
| 20 | 1 | 72314 | HYD HOSE, 6 X 39.6, 6ORB, 6NPT |
| 21 | 2 | 72235 | HYDRAULIC CYLINDER, 2 X 17 |
| 22 | 2 | 1021 | DOUBLE T CLAMP, PLASTIC |
| 23 | 2 | 56563 | TOP PLATE CLAMP |
| 24 | 2 | 56568 | BOLT HEX, 5/16 X 1-3/8 G5 |
| 25 | 2 | CHM278 | BLOCK CLAMP, PLASTIC |
| 26 | 1 | 72884 | CYLINDER PIN |
| 27 | 2 | YWFL08005 | WASHER FLAT, 1/4 |
| 28 | 1 | 72315 | HYD HOSE, 6 X 45.1, 6ORB, 6NPT |
| 29 | 1 | 72319 | WEAR SLEEVE |

*MEANS NOT SHOWN

FIGURE 8 HYDRAULIC CYLINDER

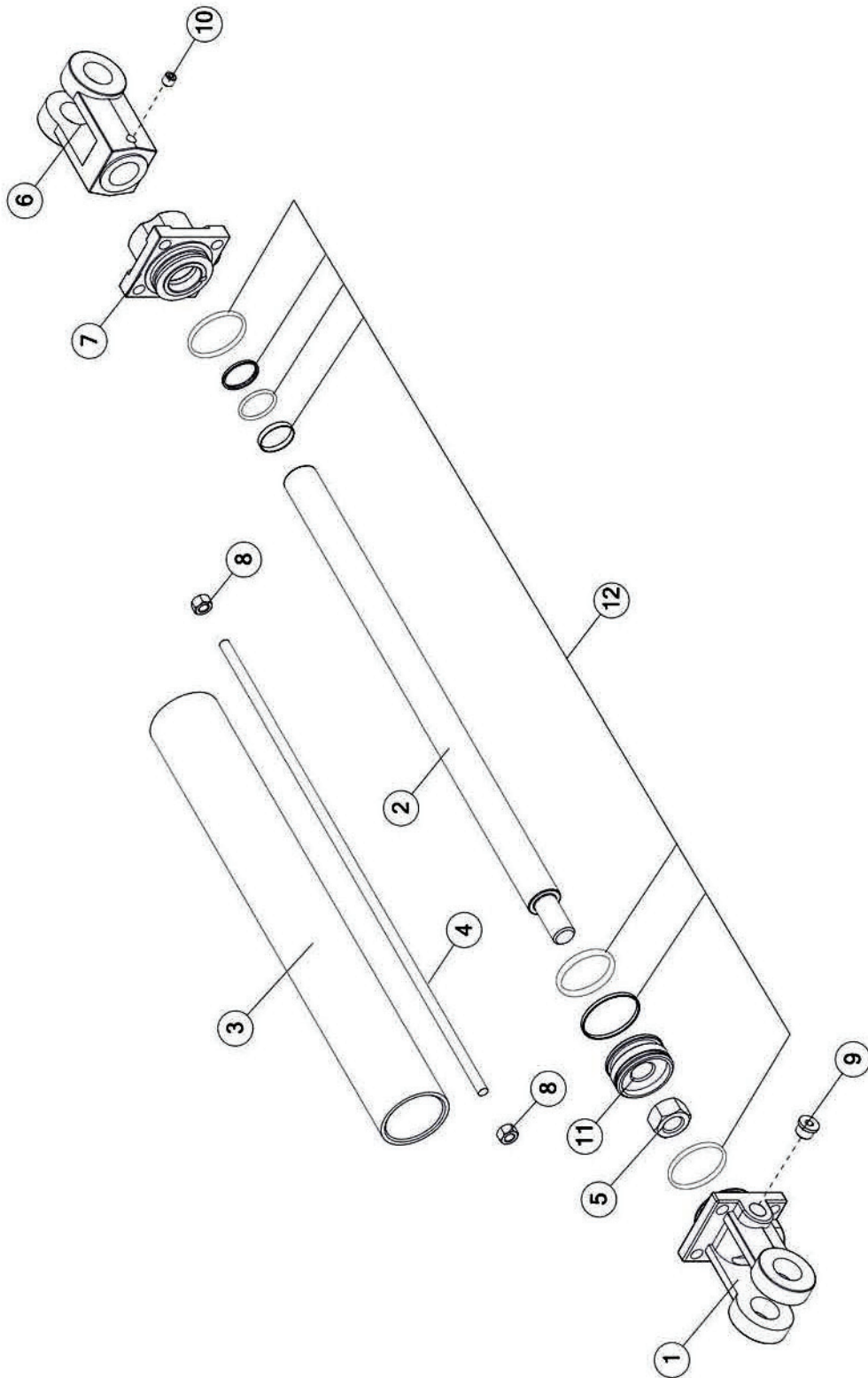


FIGURE 8
HYDRAULIC CYLINDER

| <u>ITEM</u> | <u>QTY</u> | <u>PART#</u> | <u>DESCRIPTION</u> |
|--------------------|-------------------|---------------------|---------------------------------|
| 1 | 1 | 66932 | CLEVIS CAP FOR 2 CYLINDER |
| 2 | 1 | 72237 | ROD |
| 3 | 1 | 72234 | CYLINDER TUBE |
| 4 | 4 | 72236 | TIE ROD |
| 5 | 1 | 23N148 | PISTON NUT |
| 6 | 1 | 23N150A | ROD CLEVIS |
| 7 | 1 | 66934 | ROD CAP |
| 8 | 4 | YNHX12005 | NUT HEX, 3/8-16 G2 |
| 9 | 1 | SD270 | HOLLOW HEX PLUG 6 |
| 10 | 1 | YSSO12015 | SET SCREW, SOCKET, 3/8-24 X 3/8 |
| 11 | 1 | 56180 | PISTON |
| 12 | 6 | 56187 | SEAL KIT |
| - | 1 | 72235 | COMPLETE HYD CYLINDER, 2 X 17 |

FIGURE 9
OPTIONAL - WIND GUARD

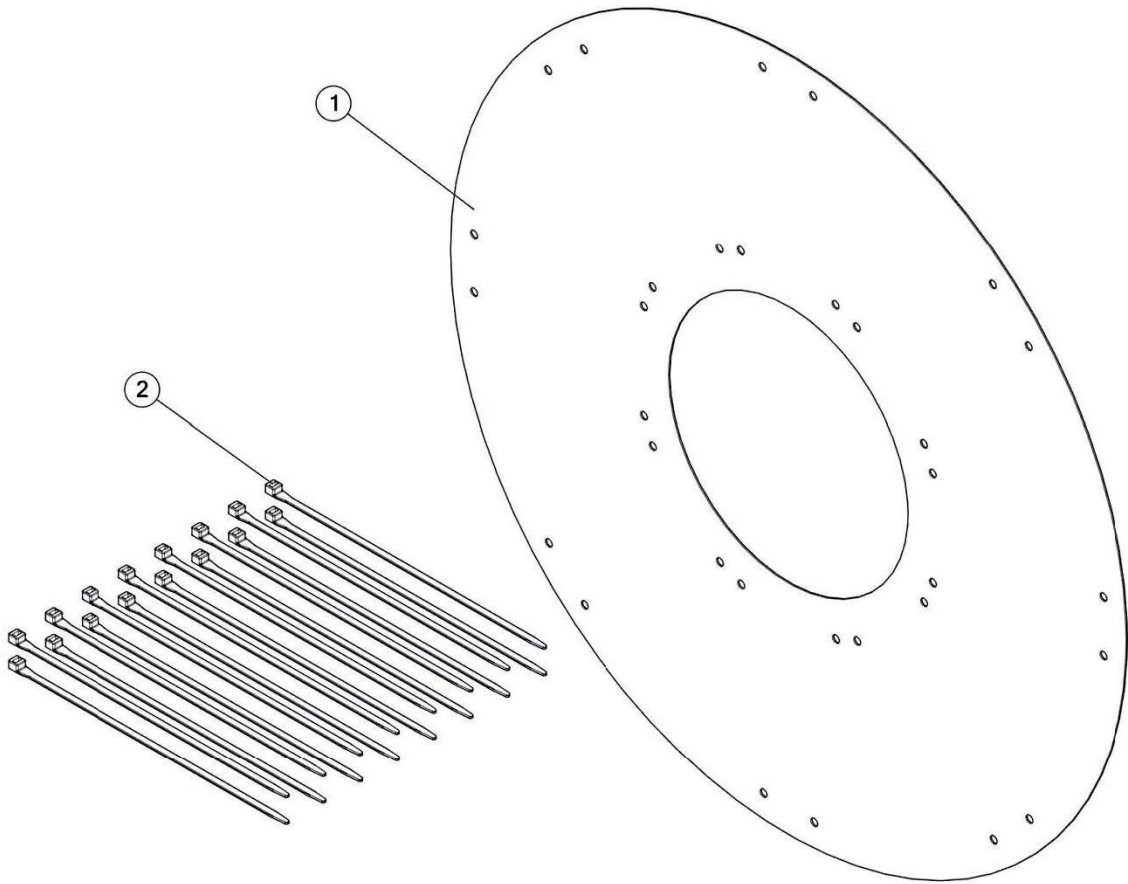


FIGURE 9
OPTIONAL - WIND GUARD

| <u>ITEM</u> | <u>QTY</u> | <u>PART#</u> | <u>DESCRIPTION</u> |
|-------------|------------|--------------|--------------------------|
| 1 | 1 | 59039 | POLY WIND GUARD |
| 2 | 16 | CIZT105 | ZIPTIE, 15.0 X .30 X .08 |

FIGURE 10
OPTIONAL - HITCH

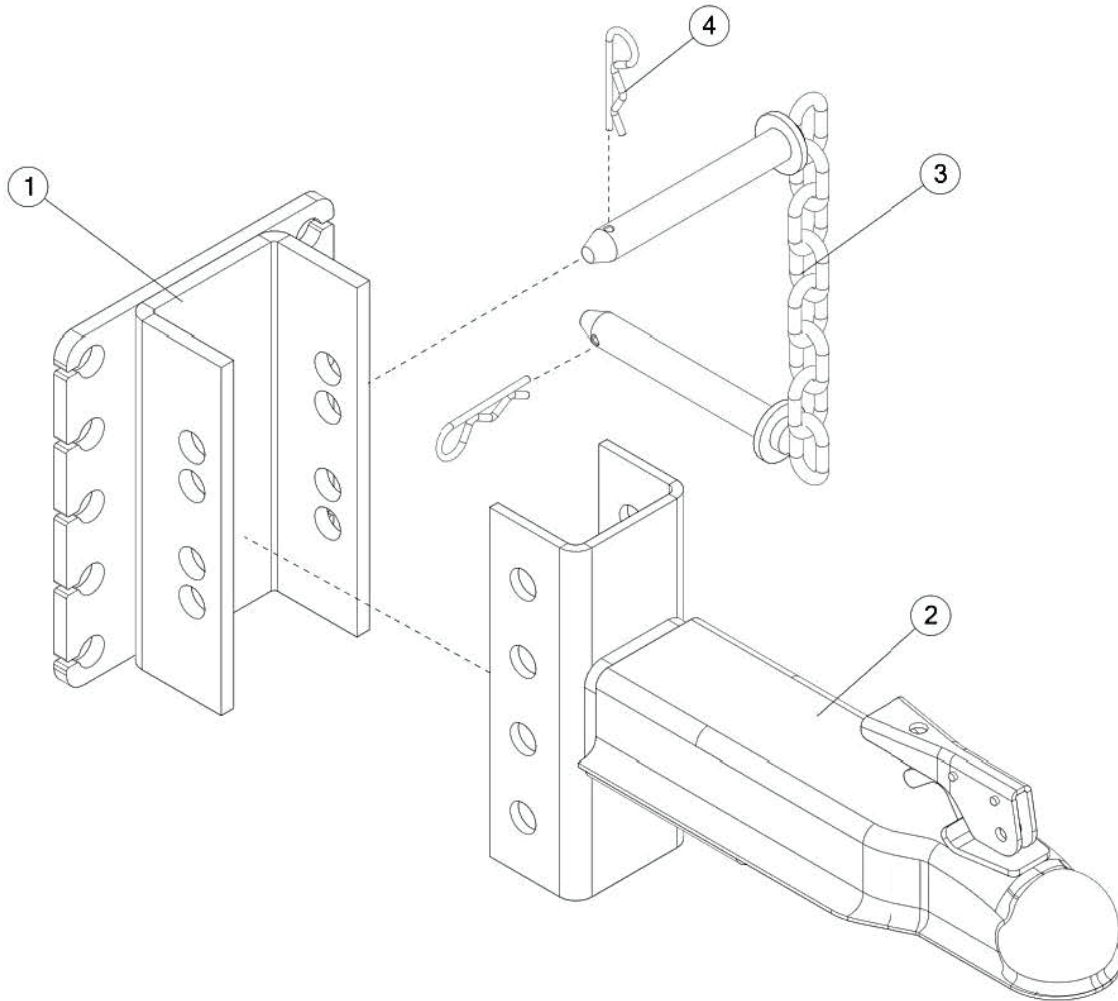


FIGURE 10
OPTIONAL - HITCH

| <u>ITEM</u> | <u>QTY</u> | <u>PART#</u> | <u>DESCRIPTION</u> |
|--------------------|-------------------|---------------------|---------------------------|
| 1 | 1 | 76459 | ADJUSTABLE HITCH |
| 2 | 1 | 76461 | BALL HITCH, 2- 5/16 |
| 3 | 1 | BFR450 | HITCH PIN |
| 4 | 2 | YPHR02010 | HAIR PIN, #21-07 |

FIGURE 11 OPTIONAL - TAIL LIGHT KIT

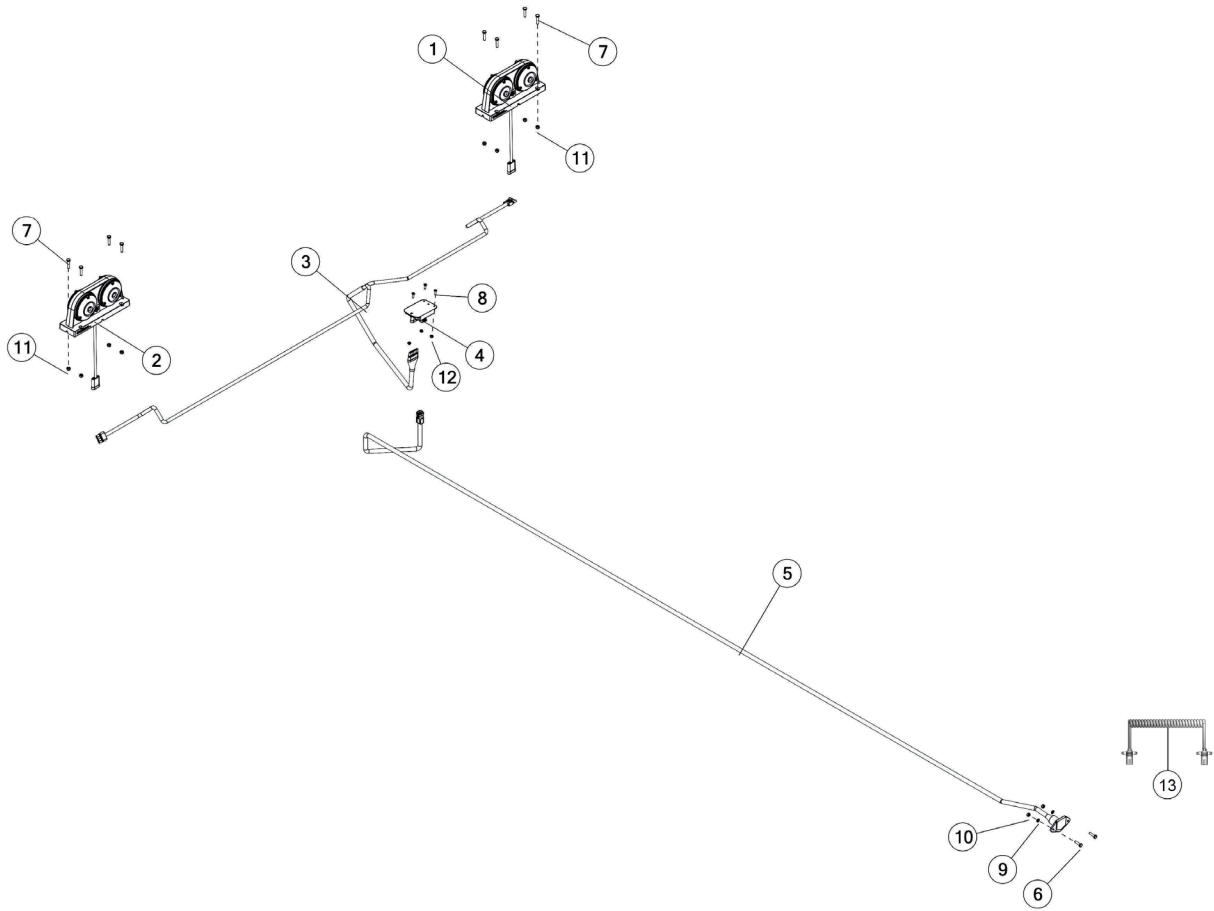


FIGURE 11
OPTIONAL - TAIL LIGHT KIT

| <u>ITEM</u> | <u>QTY</u> | <u>PART#</u> | <u>DESCRIPTION</u> |
|--------------------|-------------------|---------------------|-------------------------------|
| 1 | 1 | 77923 | TAIL LIGHT LH |
| 2 | 1 | 77924 | TAIL LIGHT RH |
| 3 | 1 | 77990 | LIGHT HARNESS, REAR |
| 4 | 1 | 69908 | CONTROL MODULE |
| 5 | 1 | 77986 | LIGHT HARNESS |
| 6 | 2 | YBHH08005 | BOLT HEX, 1/4 X 1 G2 |
| 7 | 8 | YBHH08030 | BOLT HEX, 1/4 X 1-1/4 G2 |
| 8 | 3 | YSPN64005 | PAN HEAD, SCREW 10 - 24 X 5/8 |
| 9 | 2 | YWLO08005 | WASHER LOCK, 1/4 |
| 10 | 2 | YNHX08005 | NUT HEX, 1/4 |
| 11 | 8 | YNNY08005 | NUT HEX, 1/4 |
| 12 | 3 | YNNY64005 | NUT HEX, #10 - 24 |
| 13 | 1 | TLPC | TRANSPORT LIGHT CORD |

CHANGE NOTES

1. Added TLPC to Figure 11

H&S MFG. CO.

products approved

for the

FEMA

SEAL OF QUALITY

