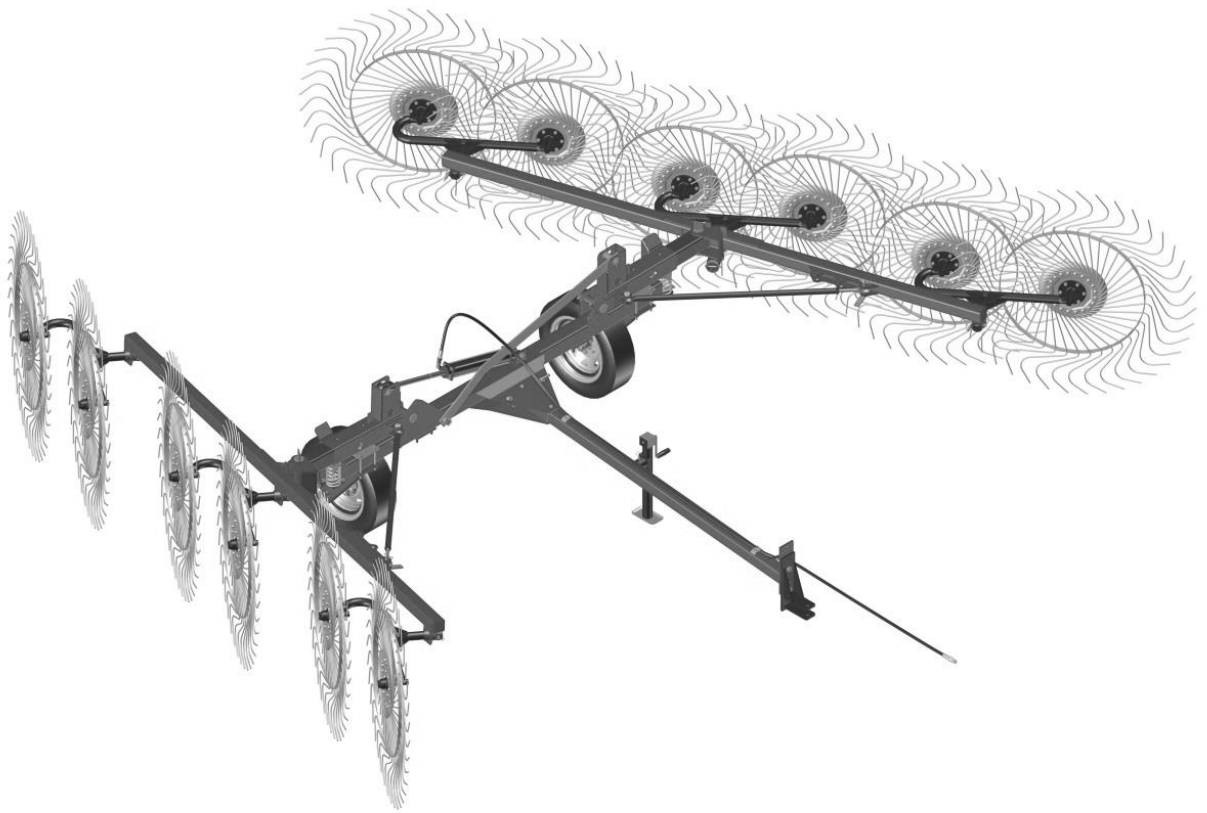


H&S PARTS BOOK

VR1112 RAKE



Revision #01
Starting Ser.#911VR12009

Part #69796
HSMF1218

P.O. BOX 768, MARSHFIELD, WI 54449
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INSTRUCTIONS FOR ORDERING PARTS

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

1. Model & Serial number is located on the left, rear main frame of your unit.
2. All reference to left or right apply to the machine as viewed from the rear.
3. Parts should not be ordered from illustration only. Please order by 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. | <input type="text"/> |
| SER. NO. | <input type="text"/> |
| DESCR. | <input type="text"/> |

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

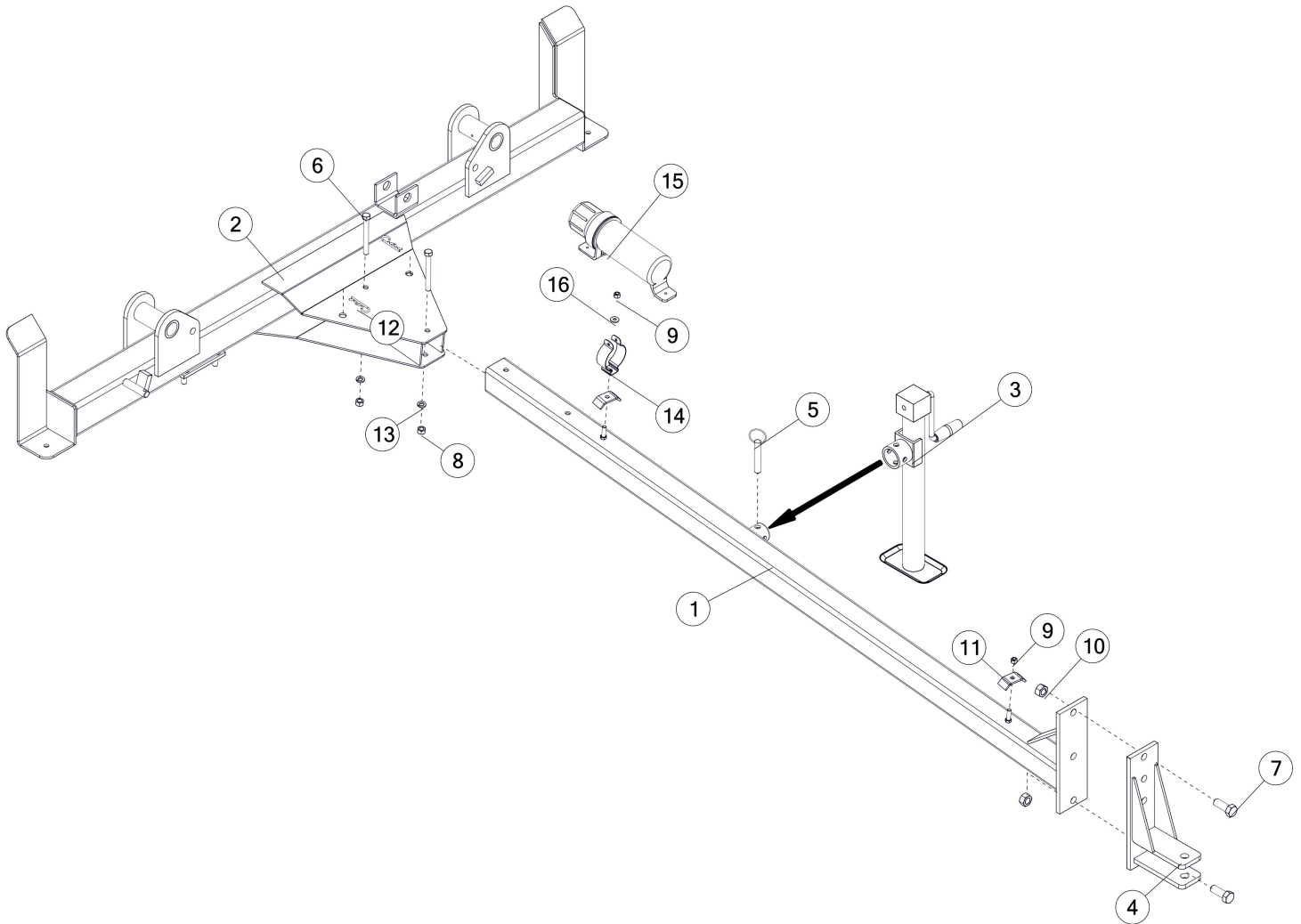


FIGURE 1

FRAME COMPONENTS

| <u>ITEM</u> | <u>QTY</u> | <u>PART #</u> | <u>DESCRIPTION</u> |
|-------------|------------|---------------|---------------------------|
| 1 | 1 | 10WR29 | ASSY, POLE |
| 2 | 1 | 8WR9 | ASSY, MAIN FRAME |
| 3 | 1 | BFR753A | JACK, SIDEWIND,2000# |
| 4 | 1 | 10WR30 | ASSY, HITCH |
| 5 | 1 | BFR4 | PULL PIN |
| 6 | 2 | YBHH16140 | BOLT, 1/2 X 4-1/2 GR 5 |
| 7 | 2 | YBHH24015 | BOLT, 3/4 X 2 GR 5 |
| 8 | 2 | YNHX16005 | HEX NUT, 1/2 |
| 9 | 2 | YNTL12005 | HEX NUT, TOP LOCK, 3/8-16 |
| 10 | 2 | YNTL24005 | HEX NUT, TOP LOCK, 3/4-10 |
| 11 | 2 | 23N67 | FRONT HOSE BRACKET |
| 12 | 2 | YPHR02010 | HAIR PIN |
| 13 | 2 | YWLO16005 | WASHER, LOCK, 1/2 |
| 14 | 1 | S523 | MANUAL HOLDER CLAMP |
| 15 | 1 | S522 | MANUAL HOLDER |
| 16 | 1 | YWFL10005 | WASHER LOCK, 3/8 |

FIGURE 2 SLIDER & COMPONENTS

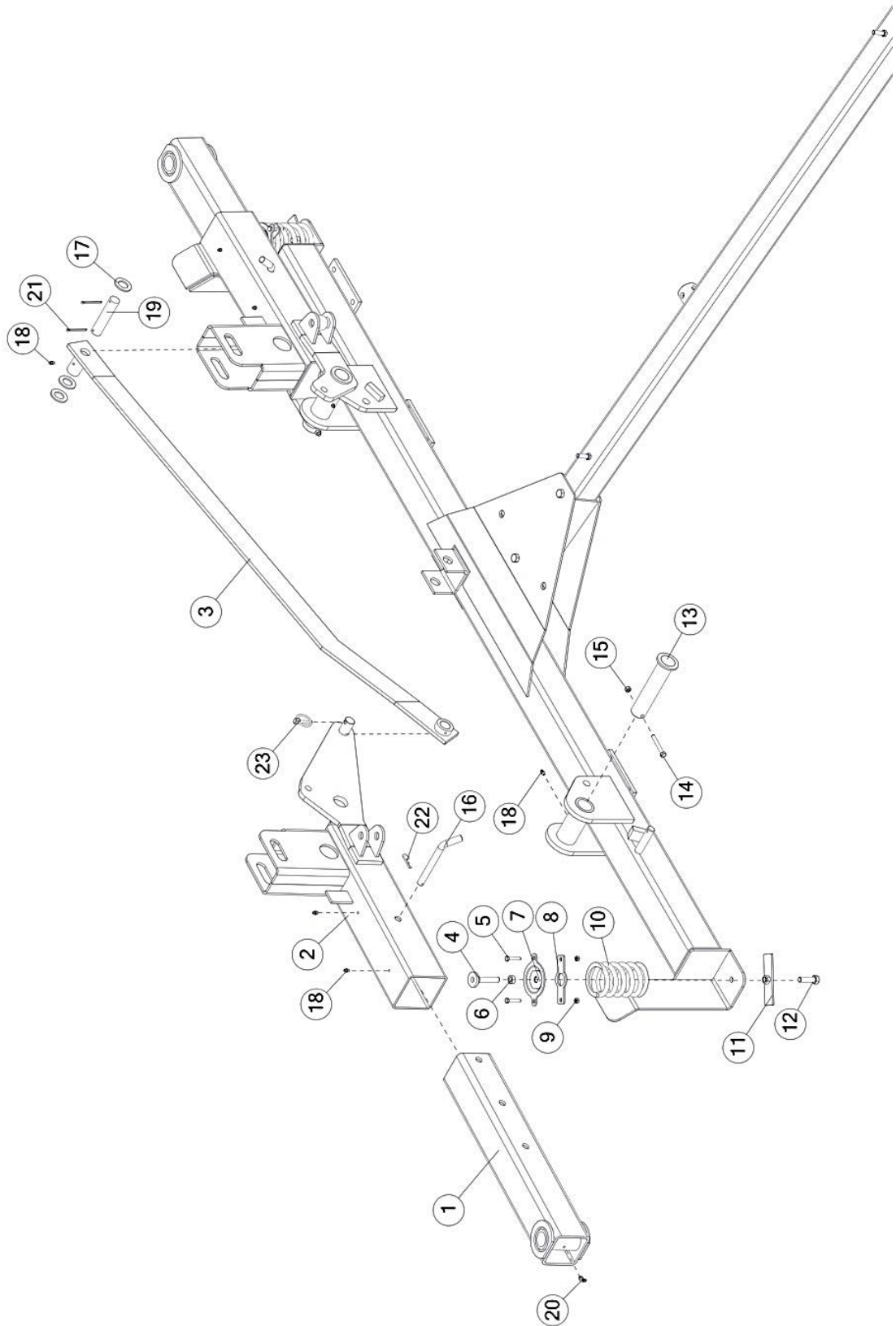


FIGURE 2

SLIDER & COMPONENTS

| <u>ITEM</u> | <u>QTY</u> | <u>PART #</u> | <u>DESCRIPTION</u> |
|-------------|------------|---------------|--|
| 1 | 2 | 10WR34 | WLDMT, SLIDE ARM, RAKE |
| 2 | 1 | 10WR27 | ASSY, RIGHT LIFTER ARM |
| * | 1 | 10WR28 | ASSY, LEFT PIVOT ARM HOUSING |
| 3 | 1 | 12WR5 | ASSY, LIFTING LINKAGE |
| 4 | 2 | 10WR16 | ASSY, SPRING ADJUSTMENT |
| 5 | 4 | YBHH08025 | BOLT, 1/4 X 1-1/2 GR 5 |
| 6 | 2 | YNJM16005 | HEX NUT, JAM, 1/2-13 |
| 7 | 2 | 10WR15 | ASSY, SPRING DISK |
| 8 | 2 | 10WR46 | SPRING BOTTOM |
| 9 | 4 | YNRL08005 | HEX NUT, REVERSIBLE-SIDE LOCK, 1/4-20 |
| 10 | 2 | 12WR1 | SPRING |
| 11 | 2 | 10WR3 | ASSY, SPRING CLAMP |
| 12 | 2 | YBHH16055 | BOLT, 1/2 X 1-3/4 GR 5 |
| 13 | 2 | 10WR7 | ASSY, PIVOT ARM PIN |
| 14 | 2 | YBHH10080 | BOLT, 5/16 X 2-1/2 GR 5 |
| 15 | 2 | YNHX10020 | HEX NUT, 5/16"-18 GR. 8 |
| 16 | 2 | 10WR14 | BENT PIN, 5/8" X 5.00" |
| 17 | 1 | 16SV136 | WASH, FLAT, 1.75 X 1.02 X 0.13, ZC ZERK, |
| 18 | 1 | G89 | 1/4"-28 STRAIGHT |
| 19 | 1 | LW55 | PIN, 1.00 X 4.50, CYLINDER |
| 20 | 2 | RG21 | GREASE ZERK, 45 DEGREE |
| 21 | 1 | YPCT05025 | COTTER PIN, 5/32 X 2 |
| 22 | 2 | YPHR02005 | HAIR PIN |
| 23 | 1 | YPLY08011 | LYNCH PIN, 1/4 X 1-9/16 |

***MEANS NOT SHOWN**

FIGURE 3

HUB ASSEMBLY

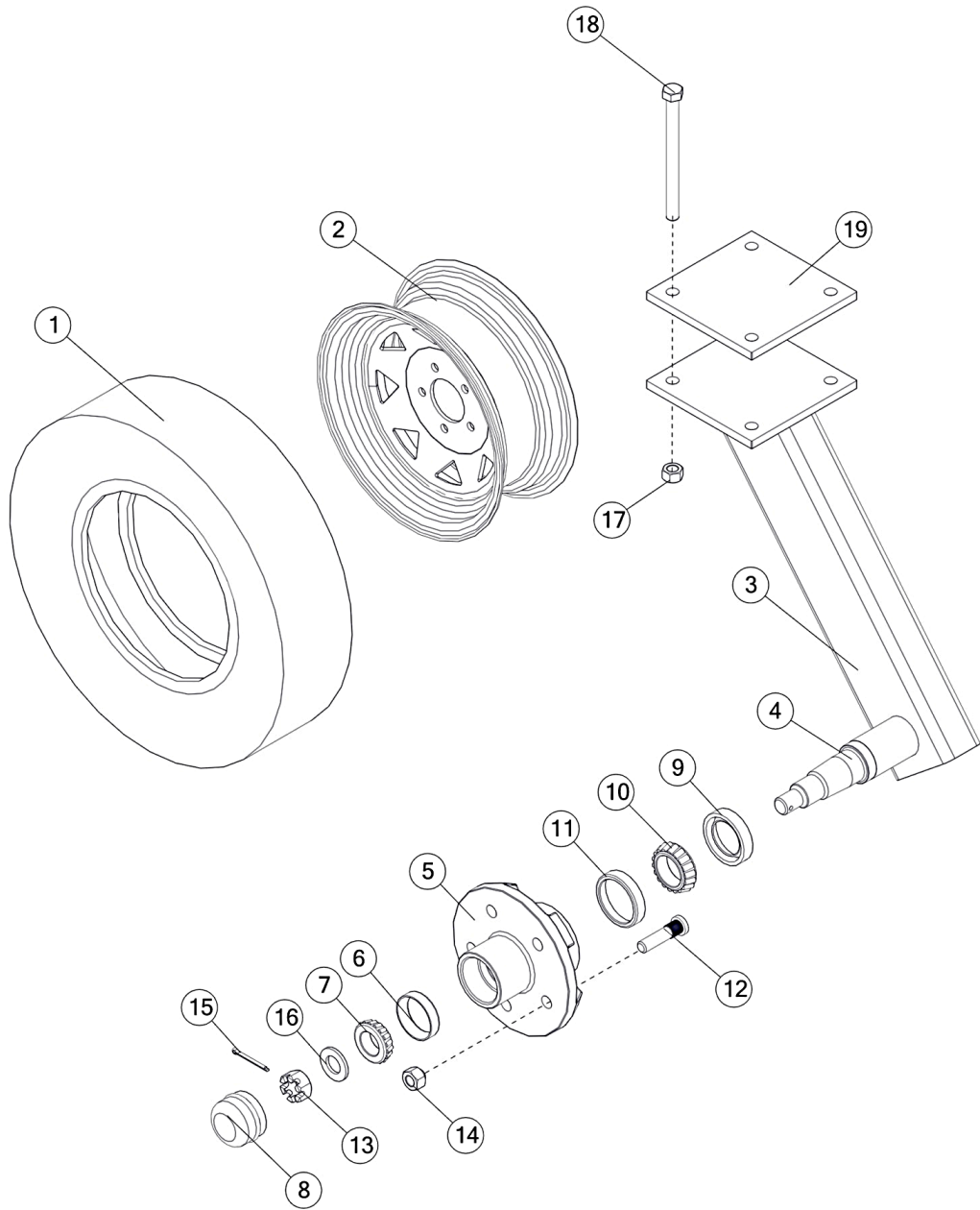


FIGURE 3

HUB ASSEMBLY

| <u>ITEM</u> | <u>QTY</u> | <u>PART #</u> | <u>DESCRIPTION</u> |
|-------------|------------|---------------|--|
| 1 | 2 | CAT198 | ST175/80D13 LRB TIRE ONLY |
| 2 | 2 | CAT195 | WHEEL, 15X6X5.5 -6 BOLT |
| 3 | 1 | 10WR33 | LEFT AXLE |
| * | 1 | 10WR32 | RIGHT AXLE |
| 4 | 2 | 10WR48 | SPINDLE |
| 5 | 2 | CAT8 | HUB |
| 6 | 2 | BFR275 | RACE |
| 7 | 2 | CAT10 | OUTER BEARING |
| 8 | 2 | CAT46 | CAP, HUB |
| 9 | 2 | CAT5 | GREASE SEAL |
| 10 | 2 | CAT6 | INNER BEARING |
| 11 | 2 | CAT7 | INNER RACE |
| 12 | 10 | YBSD16018 | STUD BOLT, 1/2-20 UNF X 2-1/8, 9/16 SHOULDER |
| 13 | 2 | YNSL24010 | HEX NUT, SLOTTED, 3/4-16, PLAIN |
| 14 | 10 | YNWL16005 | WHEEL NUT, 1/2"-20 UNF |
| 15 | 2 | YPCT05010 | COTTER PIN 5/32" X 1-1/2" |
| 16 | 2 | YWFL24010 | WASHER, FLAT, SAE 3/4, PLAIN |
| 17 | 4 | YNHX16007 | HEX NUT, 1/2"-13 GR. 8 |
| 18 | 4 | YBHH16165 | BOLT, 1/2 X 6 GR 5 |
| 19 | 2 | 10WR38 | AXLE PLATE |

***MEANS NOT SHOWN**

FIGURE 4
RAKE BEAM & COMPONENTS

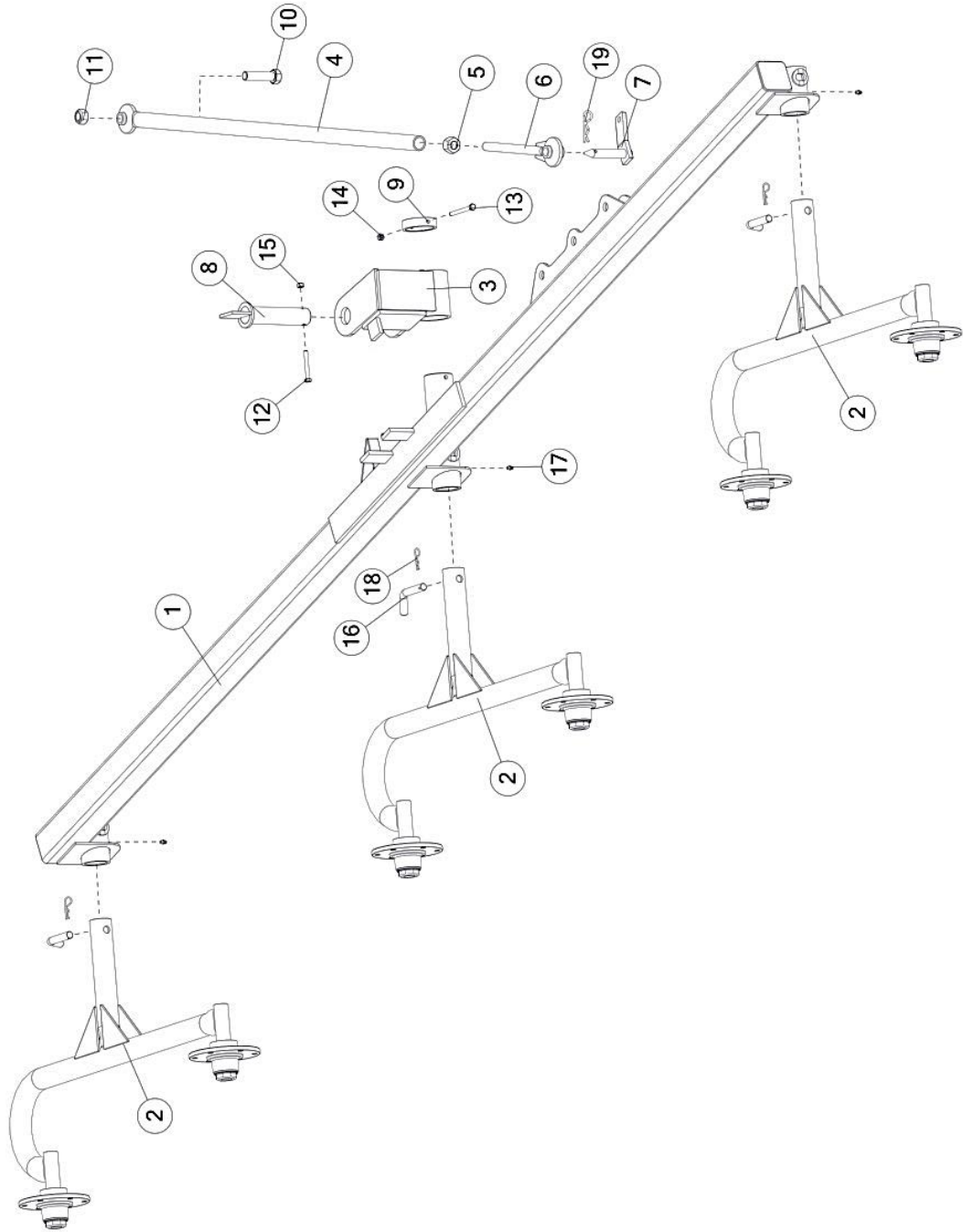


FIGURE 4

RAKE BEAM & COMPONENTS

| <u>ITEM</u> | <u>QTY</u> | <u>PART #</u> | <u>DESCRIPTION</u> |
|-------------|------------|---------------|------------------------------|
| 1 | 1 | 12WR2 | ASSY, RIGHT RAKE BEAM |
| * | 1 | 12WR3 | ASSY, LEFT RAKE BEAM |
| 2 | 6 | 10WR22 | RAKE ARM |
| 3 | 1 | 10WR36 | PIVOT BRACKET,RH |
| * | 1 | 10WR37 | PIVOT BRACKET,LH |
| 4 | 2 | 10WR31 | LINK ROD |
| 5 | 2 | YNAC24005 | HEX NUT, ACME, 3/4-6 |
| 6 | 2 | 10WR9 | ASSY, ADJUSTING ROD |
| 7 | 2 | BFR401 | ASSY, CENTER SLIDER PIN |
| 8 | 2 | 10WR6 | ASSY, RAKE BEAM PIN |
| 9 | 2 | 10WR8 | PIVOT THRUST WASHER |
| 10 | 2 | YBHH24050 | BOLT, 3/4-10 X 3 GR 5 |
| 11 | 2 | YNL24005 | HEX NUT, TOP LOCK, 3/4-10 |
| 12 | 2 | YBHH10080 | BOLT, 5/16"-18 X 2-1/2" GR 5 |
| 13 | 2 | YBHH10110 | BOLT, 5/16 X 3-1/2 GR 5 |
| 14 | 2 | YNHX10005 | HEX NUT, 5/16 GR 2 |
| 15 | 2 | YNL10005 | HEX NUT, TOP LOCK, 5/16-18 |
| 16 | 6 | 10WR13 | CANE PIN |
| 17 | 6 | G89 | ZERK, 1/4"-28 |
| 18 | 6 | YPHR02005 | HAIR PIN |
| 19 | 2 | YPHR02010 | HAIR PIN. |

***MEANS NOT SHOWN**

FIGURE 5
RAKE WHEEL ASSEMBLY

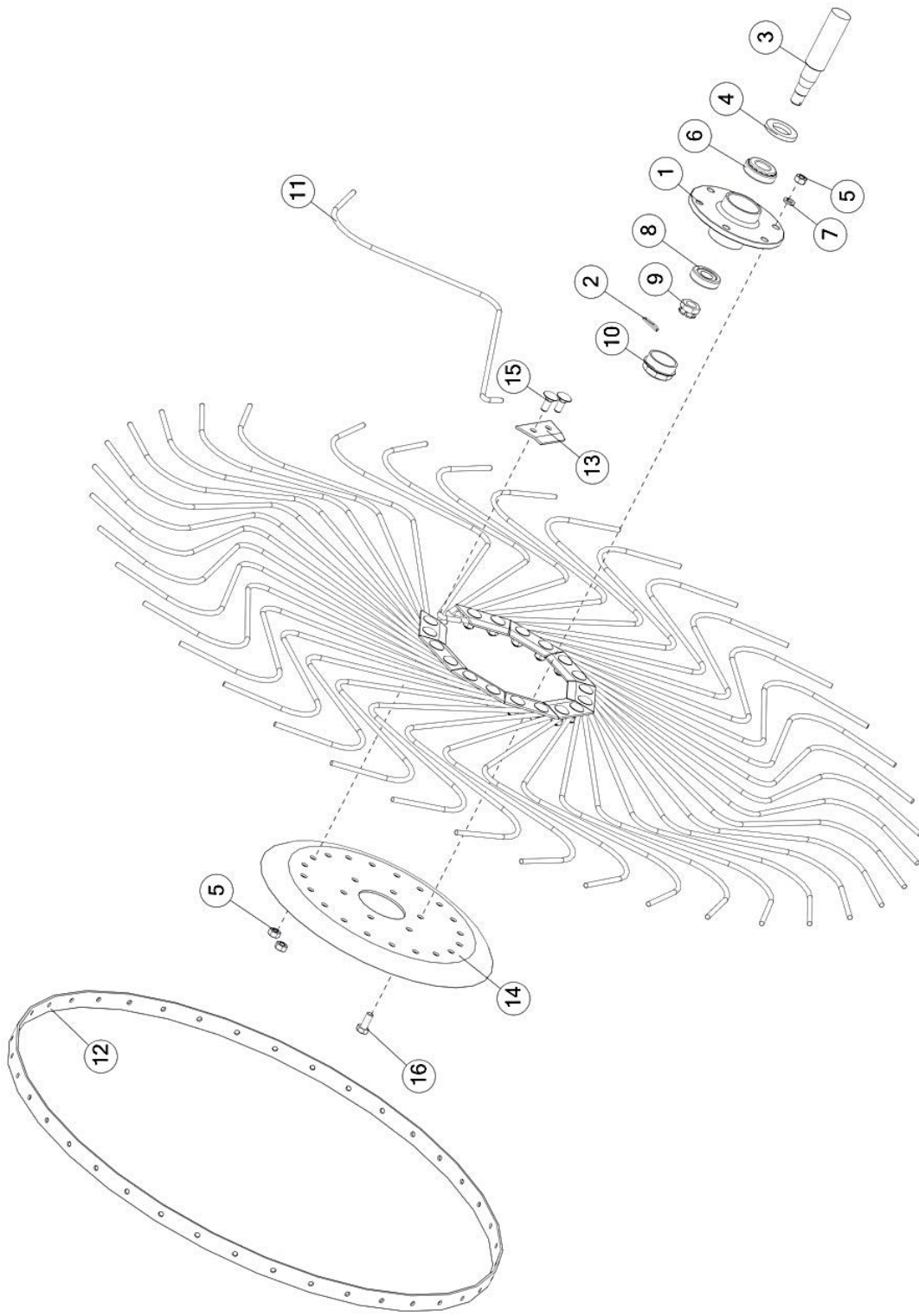


FIGURE 5

RAKE WHEEL ASSEMBLY

| <u>ITEM</u> | <u>QTY</u> | <u>PART #</u> | <u>DESCRIPTION</u> |
|-------------|------------|---------------|--------------------------------------|
| 1 | 1 | 1086 | HUB, RAKE WHEEL |
| 2 | 1 | 1088 | CLIP, RETAINING |
| 3 | 1 | BFR36 | RAKE WHEEL SPINDLE |
| 4 | 1 | T163 | SEAL, 2.05 X 1.25 X .25 |
| 5 | 26 | YNHX76015 | HEX NUT, M10-1.5 |
| 6 | 1 | 600012 | BRG, 2.05 X 0.75, TAPER, COMPLETE |
| 7 | 6 | YWLO76015 | WASHER, LOCK, M10 |
| 8 | 1 | 600014 | BRG, 1.85 X 0.75, TAPER, COMPLETE |
| 9 | 1 | T172 | NUT, HEX, 18MM - 1.5, CASTLE, G2, NF |
| 10 | 1 | T173 | CAP, HUB, RAKE WHEEL |
| 11 | 40 | T176 | RAKE WHEEL TOOTH |
| 12 | 1 | T177 | RAKE WHEEL OUTER RING |
| 13 | 10 | T178 | RAKE TOOTH CLIP |
| 14 | 1 | T179 | RAKE WHEEL CENTER |
| 15 | 20 | YBCR76005 | CARR. BOLT, 10MM X 25MM |
| 16 | 6 | YBHH76015 | BOLT, M10-1.5 (25MM) |

FIGURE 6
OPTIONAL - KICKER WHEEL

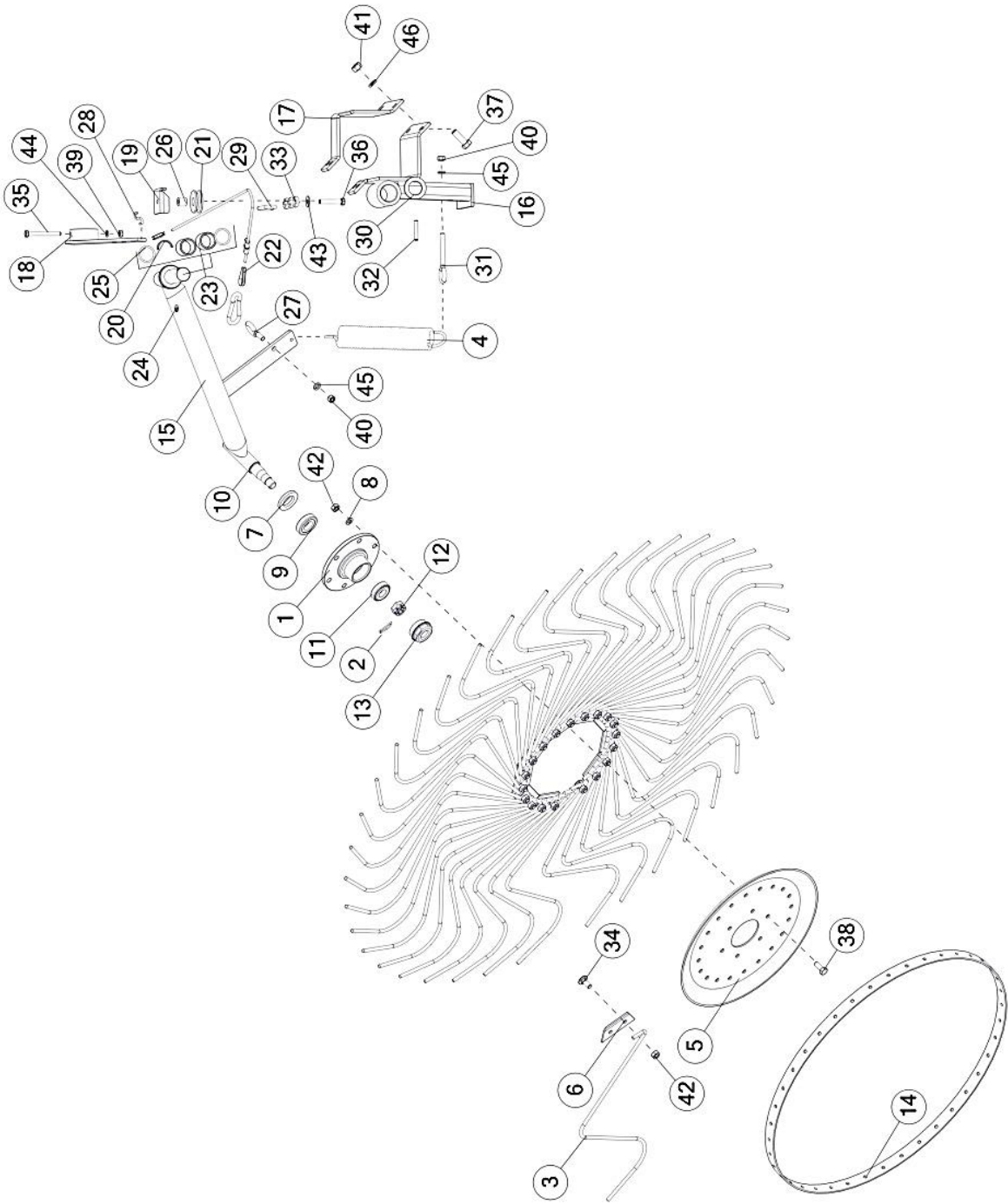


FIGURE 6

OPTIONAL - KICKER WHEEL

| <u>ITEM</u> | <u>QTY</u> | <u>PART #</u> | <u>DESCRIPTION</u> |
|-------------|------------|---------------|---|
| 1 | 1 | 1086 | HUB, RAKE WHEEL |
| 2 | 1 | 1088 | CLIP, RETAINING |
| 3 | 40 | 10WR42 | RAKE WHEEL TOOTH, 49", BLACK |
| 4 | 1 | BFR110 | KICKER WHEEL SPRING |
| 5 | 1 | FR71 | RAKE WHEEL CENTER 60 IN BLACK |
| 6 | 10 | FR74 | RAKE TOOTH CLIP BLACK |
| 7 | 1 | T163 | SEAL, 2.05 X 1.25 X .25 |
| 8 | 6 | YWLO76015 | WASHER, LOCK, M10 |
| 9 | 1 | 600012 | BRG, 2.05 X 0.75, TAPER, COMPLETE |
| 10 | 1 | BFR36 | RAKE WHEEL SPINDLE |
| 11 | 1 | 600014 | BRG, 1.85 X 0.75, TAPER, COMPLETE |
| 12 | 1 | T172 | NUT, HEX, 18MM - 1.5, CASTLE, G2, NF |
| 13 | 1 | T173 | CAP, HUB, RAKE WHEEL |
| 14 | 1 | T177A | OUTER RING FOR 48" RAKE WHEEL |
| 15 | 1 | 10WR41 | KICKER ARM |
| 16 | 1 | 71625 | WLDMNT, TOP MOUNTING BRACKET |
| 17 | 1 | 71626 | PLT, 10.50x6.00x.25, MOUNTING BRACKET, FRONT |
| 18 | 1 | 10WR40 | PIVOT MOUNT |
| 19 | 1 | 10WR19 | PULLEY MOUNT |
| 20 | 1 | BFR230 | SPACER |
| 21 | 1 | BFR292 | POLY PULLEY |
| 22 | 2 | ES14 | THIMBLE |
| 23 | 2 | G16 | BRONZE BUSHING 1-1/2"OD X 1-1/4"ID X 1.5" |
| 24 | 1 | G89 | ZERK, 1/4"-28 |
| 25 | 2 | S99 | O-RING |
| 26 | 1 | ST81 | EXTENSION SPACER, 11/16" |
| 27 | 1 | YBTE12005 | TURNED EYE BOLT, 3/8-16 X 1" SHANK X 2-1/2" OAL |
| 28 | 1 | YMHK91005 | MISC, S-HOOK 0.162 X 1-1/4 |
| 29 | 1 | YMSN10005 | MISC, SNAP HOOK, 5/16 |
| 30 | 1 | BFR229 | WASHER, SHIM .185x1.281 I.D.x2.00O.D. |
| 31 | 1 | YBTE12030 | TURNED EYE BOLT, 3/8-16 X 3 SHANK TURNED |
| 32 | 1 | YPEX10015 | EXPANSION PIN, 5/16" X 1-3/4" |
| 33 | 1 | 10WR44 | 1/4" PROOF CHAIN 5-LINKS |
| 34 | 20 | YBCR76005 | SCR, CARR, M10, 1.5, 25MM, 8.8, ZINC |
| 35 | 1 | YBHH10097 | BOLT, 5/16-18 X 3 GR 5 |
| 36 | 1 | YBHH12075 | BOLT, 3/8"-16 X 2" GR 5 |
| 37 | 4 | YBHH16030 | BOLT, 1/2-13 X 1-1/2 GR 5 |
| 38 | 6 | YBHH76015 | SCR, HHC, M10, 1.5, 25MM, 10.9, ZC |
| 39 | 1 | YNHX10005 | HEX NUT, 5/16 GR 2 |
| 40 | 1 | YNHX12005 | HEX NUT, 3/8"-16, GR. 2 |
| 41 | 4 | YNHX16005 | HEX NUT, 1/2"-13 GR. 2 |
| 42 | 26 | YNHX76015 | NUT, HEX, M10-1.5, NA, CL10, ZC |
| 43 | 1 | YWFL12005 | WASHER, FLAT, 3/8 USS |
| 44 | 1 | YWLO10005 | WASHER, LOCK, 5/16 |
| 45 | 1 | YWLO12005 | WASHER, LOCK, 3/8 |
| 46 | 4 | YWLO16005 | WASHER, LOCK, 1/2" |

FIGURE 7 HYDRAULICS

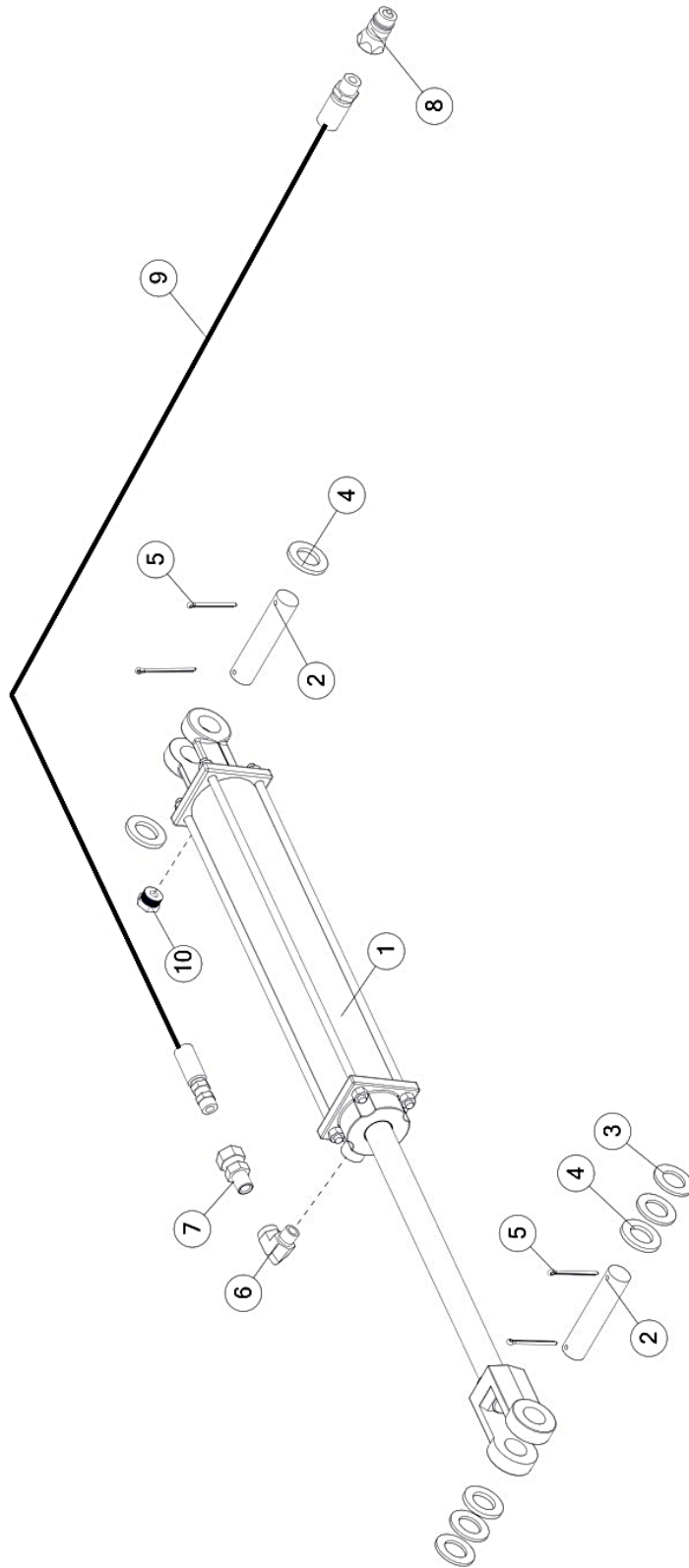


FIGURE 7

HYDRAULICS

| <u>ITEM</u> | <u>QTY</u> | <u>PART #</u> | <u>DESCRIPTION</u> |
|-------------|------------|---------------|---|
| 1 | 1 | 56007 | 2.5" X 16" HYDRAULIC CYLINDER |
| 2 | 2 | LW55 | PIN, 1.00 X 4.50, CYLINDER |
| 3 | 2 | 16SV136 | WASH, FLAT, 1.75 X 1.02 X 0.13, ZC |
| 4 | 6 | BFR33 | WASHER |
| 5 | 4 | YPCT05025 | COTTER PIN, 5/32 X 2 |
| 6 | 1 | 23N234 | ELBOW, STREET, 3/8", 90 DEGREE # 5502-6-6 |
| 7 | 1 | 58723 | 3/8 MALE ADPTER WITH .062 ORIFICE |
| 8 | 1 | DWM205 | MALE QUICK COUPLER |
| 9 | 1 | 10WR10 | HOSE, 3/8" X 145" |
| 10 | 1 | BFR70 | VENT PLUG 3/8" |

FIGURE 8

HYDRAULIC CYLINDER

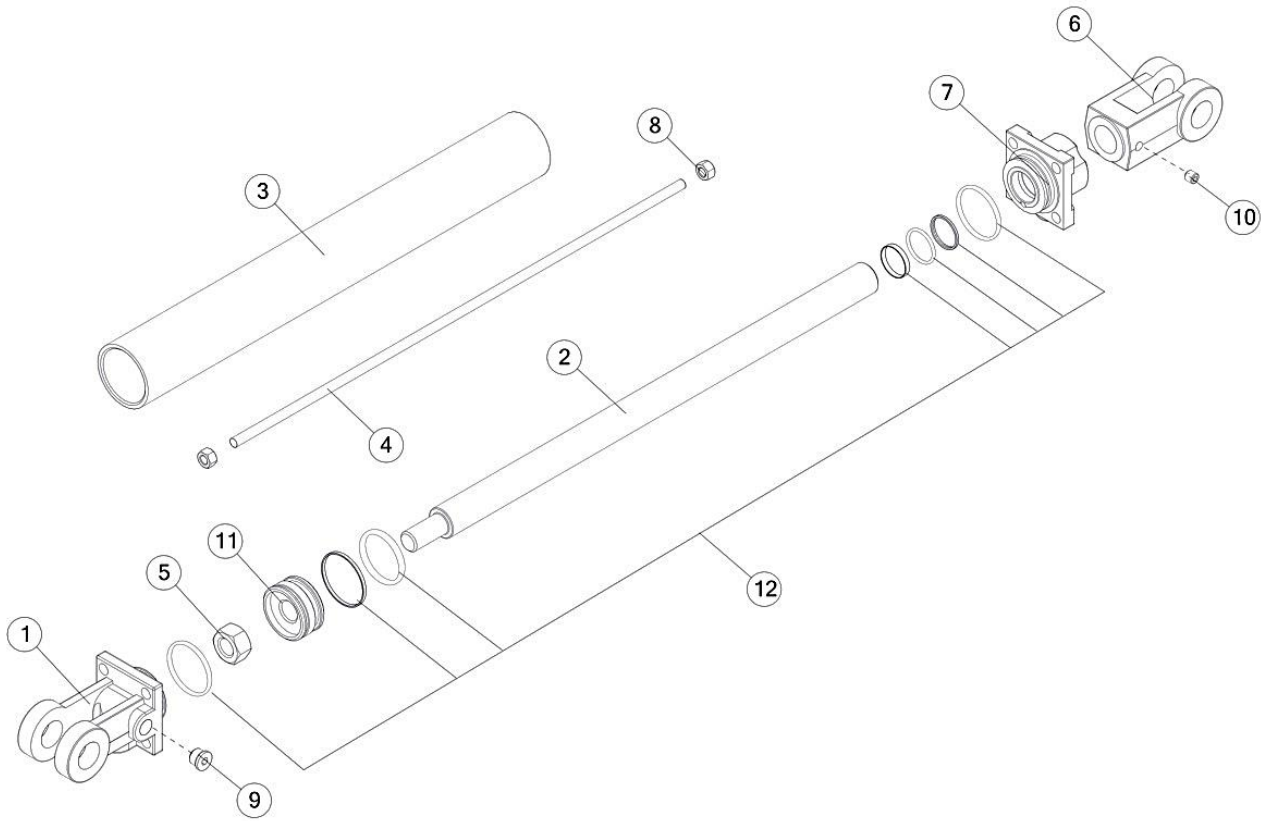
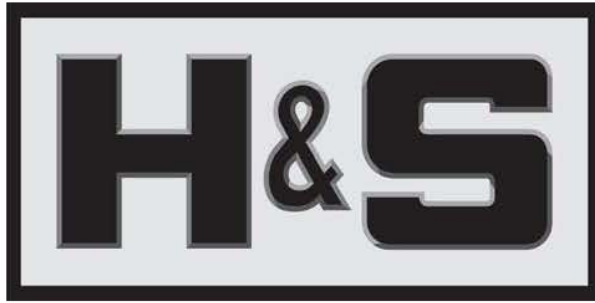


FIGURE 8

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 | CYL. TUBE |
| 4 | 4 | 72236 | SHAFT, RND |
| 5 | 1 | 23N148 | PISTON NUT |
| 6 | 1 | 23N150A | ROD CLEVIS |
| 7 | 1 | 66934 | ROD CAP FOR 2" CYLINDERS |
| 8 | 8 | YNHX12005 | HEX NUT, 3/8-16 GR 2 |
| 9 | 1 | SD270 | HOLLOW HEX PLUG 6 |
| 10 | 1 | YSSO12015 | SET SCREW, SOCKET, 3/8-24 X 3/8 |
| 11 | 1 | 56182 | PISTON FOR 3" CYLINDER |
| 12 | 1 | 56187 | SEAL KIT FOR 2" CYLINDER |



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