



McLAUGHLIN®

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Parts Manual

Vermeer/ McLaughlin

VX70-500 Vacuum Machine

VX70-800 Vacuum Machine

VX70-1200 Vacuum Machine

VX80-500 Vacuum Machine

VX80-800 Vacuum Machine

VX80-1200 Vacuum Machine

VX100-500 Vacuum Machine

VX100-800 Vacuum Machine

VX100-1200 Vacuum Machine

Part #E850501

Serial Number Ending 0706151399 - PRESENT

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072915

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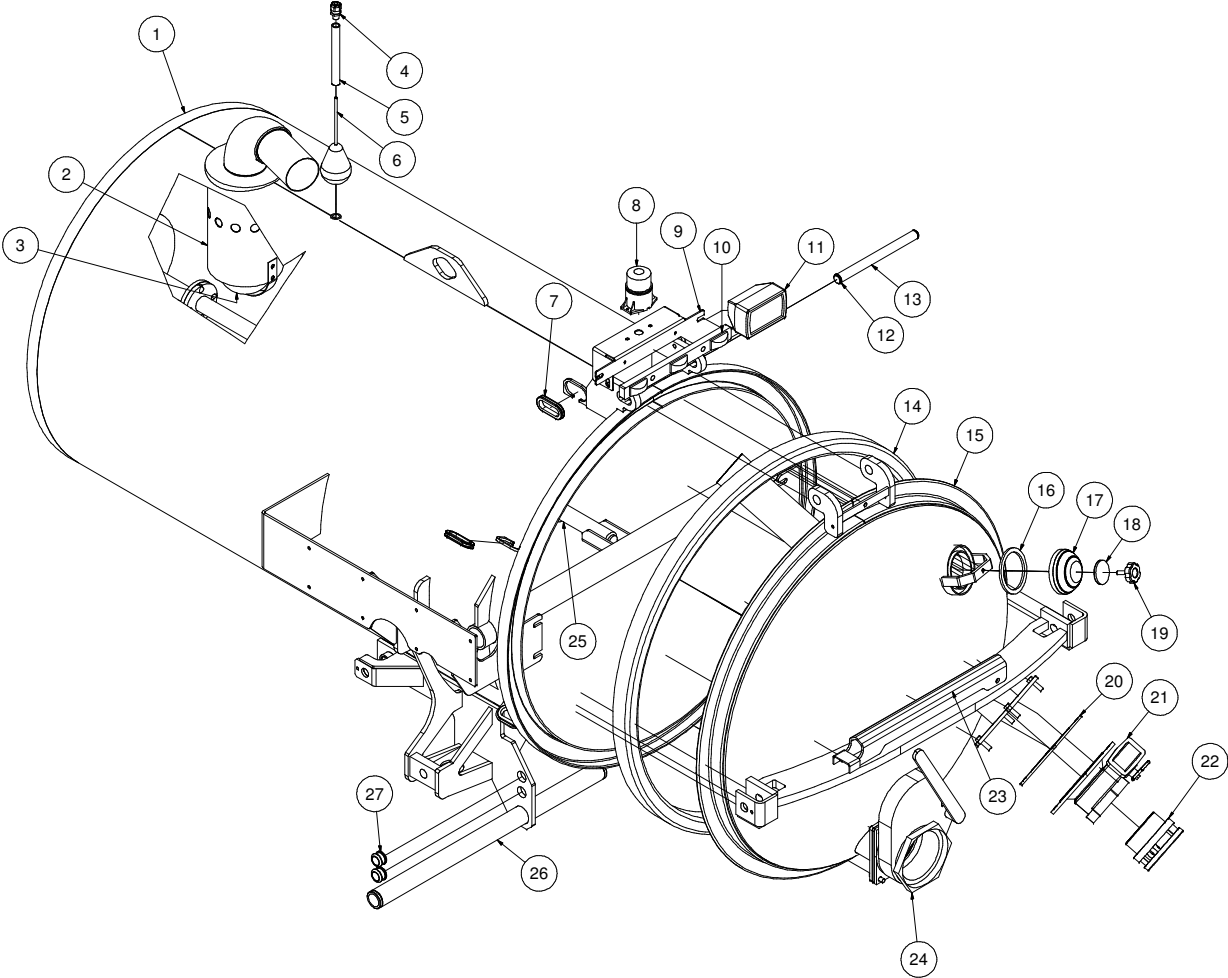
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WARRANTY

Tank and Door Assembly

V500



041315-E

VACASSY002

Tank and Door Assembly

V500

| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|------------|---|
| 1 | 1 | 8045737 | TANK WELDMENT - 500LE (42"DIA) |
| | 1 | T400310 | REDUCER, 1"MB - 3/8"MJ |
| 2 | 1 | 8043700 | BALLFLOAT SHUTOFF WELDMENT |
| | 2 | U000420 | SCREW, HC 3/8"-16 X 1.00" |
| | 2 | U210060 | WASHER, LOCK 3/8" |
| | 2 | U200600 | WASHER, FLAT 3/8" |
| | 1 | 8043571 | SEAT 4" RUBBER |
| | 1 | 8043572 | SEAT CLAMP 4" |
| 3 | 1 | 8043570 | BALL STRAINLESS FLOAT 6" |
| 4 | 1 | X000113 | STRAIN RELIEF, 1/2" |
| 5 | 1 | 8040769 | HIGH LEVEL FLOAT SWITCH TUBE |
| | 1 | 8041291 | BUSHING, RUBBER |
| 6 | 1 | 8030531 | HIGH LEVEL FLOAT SWITCH |
| 7 | 4 | 8042812 | GROMMET 2"ID 3"OD 1/4"WOG TRAILER SLOT MODEL |
| 8 | 1 | 8043139 | STROBE LIGHT |
| | 3 | U010006 | SCREW, PHILLIPS #10 - 24 X 1" |
| | 3 | U210005 | WASHER, LOCK #10 |
| | 3 | U100010 | NUT, HEX #10 - 24 |
| 9 | 1 | 8046507 | STROBE LIGHT BRACKET |
| | 4 | X000343 | DT MOUNTING CLIP |
| | 4 | U000880 | SCREW, HC 1/2" - 13 X 2.00" |
| | 4 | U200100 | WASHER, FLAT 1/2" |
| | 4 | U210111 | WASHER, LOCK 1/2" |
| | 4 | U100200 | NUT, HEX 1/2" - 13 |
| 10 | 1 | 8041509 | LIGHT CLEARANCE 3 BAR |
| 11 | 1 | 8043138 | WORK LIGHT |
| 12 | 2 | U500080 | RING,RET E-RING .375 SHAFT |
| 13 | 1 | 8040058 | DOOR HINGE ROD |
| 14 | 1 | 8041765 | DOOR SEAL 42" DIA TANK |
| 15 | 1 | 8047764 | DOOR WELDMENT - 500 (42" DIA) |
| 16 | 1 | 8031049 | GASKET, 4" COUPLER |
| 17 | 1 | 8031048 | SIGHT GLASS |
| 18 | 1 | 8031047 | SIGHT GLASS PLATE |
| 19 | 1 | 8031046 | SIGHT GLASS HAND WHEEL |
| 20 | 2 | 8046191 | GASKET DOOR LE INLET/OUTLET |
| 21 | 1 | 8046215 | VALVE, 4" GATE BRASS LEVER FLANGE (500LEHD/800LEHD) |
| * | 1 | 8046231 | O-RING, GATE VALVE FLANGE |
| 22 | 1 | 8046445 | CAMLOCK, 4" AL FCAM X MNPT |
| 23 | 1 | 8041212 | TANK SAFETY BRACE |
| 24 | 1 | 8046214 | VALVE, 6" GATE BRASS LEVER FLANGE |
| * | 1 | 8030849-50 | HANDLE,6"GATE VALVE(RIV MODEL) |
| 25 | 1 | 8043166 | 500 TANK ROD WELDMENT |
| * | 3 | 8030369 | NOZZLE, TANK CLEAN OUT |
| * | 1 | W200120 | O-RING 1 7/8" X 2 1/8" X 1/8" (225) |
| 26 | 1 | 8042648 | TANK PIVOT ROD |
| | 2 | U200180 | WASHER, FLAT 2" |
| | 2 | U120120 | LOCK NUT |
| | 2 | U000900 | SCREW, HC 1/2"-13 X 2 1/2"LG |
| 27 | 4 | 8041686 | GROMMET 1"ID - 1 1/4"DOG - 1/4"WOG |

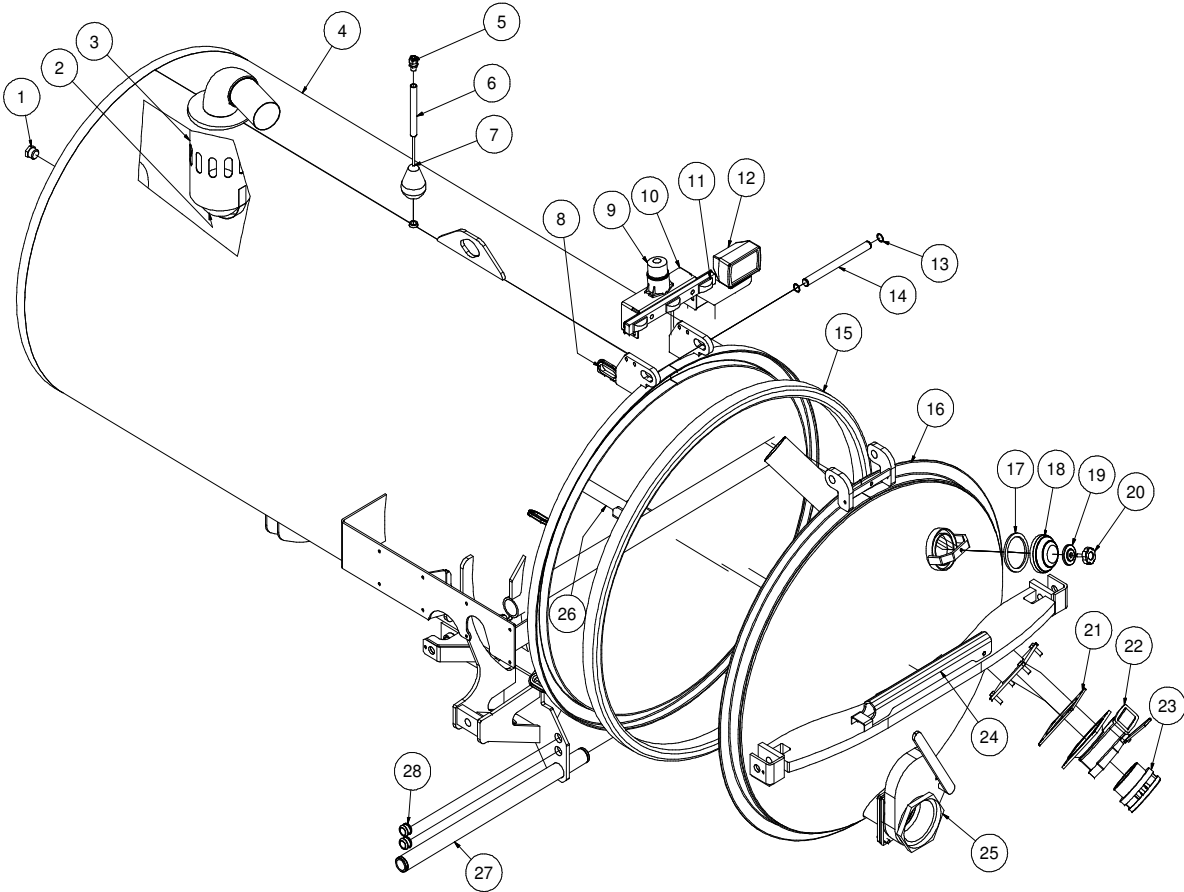
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041315-E

VACASSY002

Tank and Door Assembly

800



041015-E

VACASSY035

Tank and Door Assembly

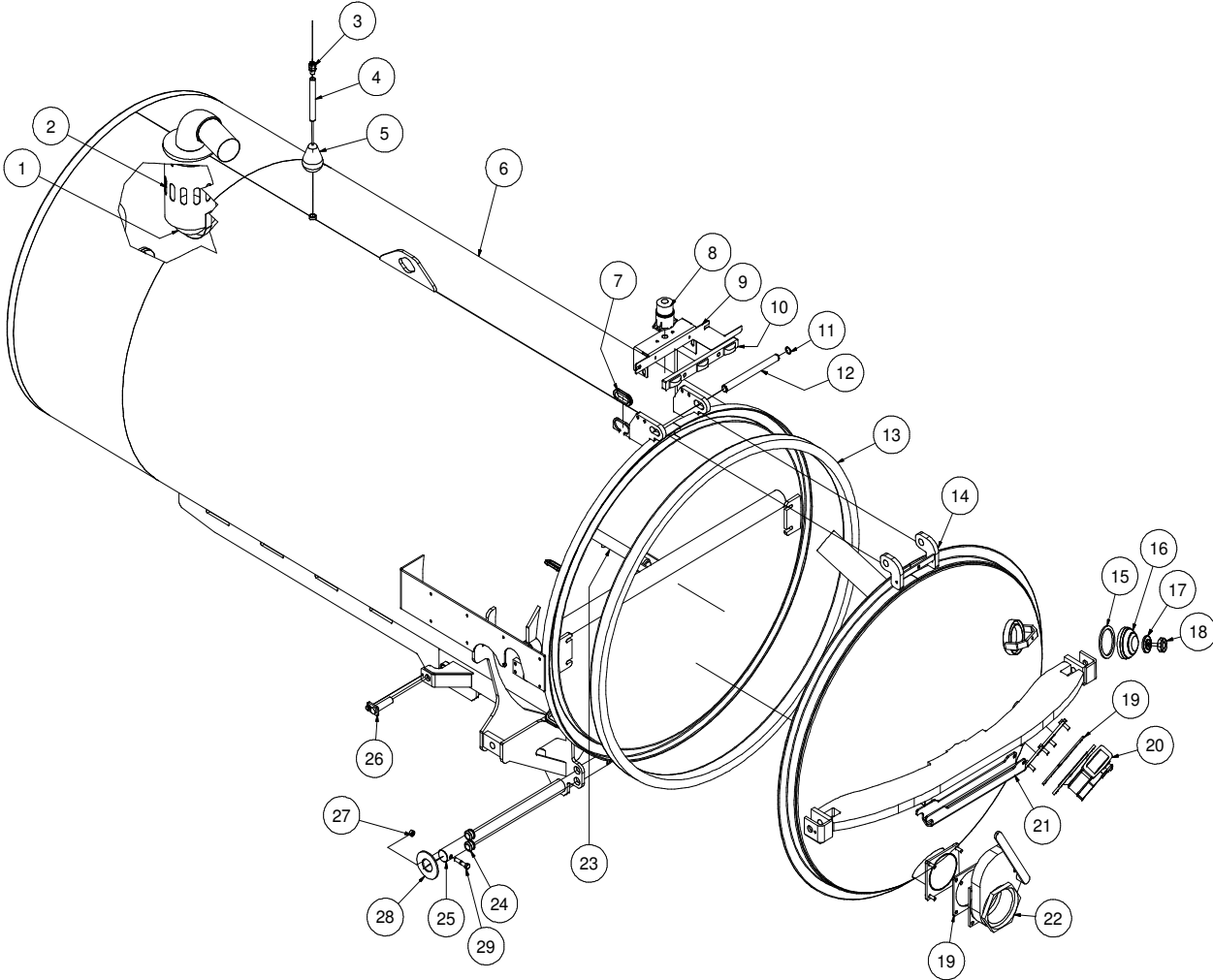
800

| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|----------|---|
| 1 | 1 | T405120 | 1" PLUG MB |
| 2 | 1 | 8043570 | BALL STRAINLESS FLOAT 6" |
| 3 | 1 | 8043700 | BALL FLOAT SHUTOFF WELDMENT |
| | 2 | U000420 | SCREW,HC 3/8"-16 X 1.00" |
| | 2 | U210060 | WASHER, LOCK 3/8" |
| | 2 | U200600 | WASHER, FLAT 3/8" |
| | 1 | 8043571 | SEAT, 4" RUBBER |
| | 1 | 8043572 | SEAT CLAMP 4" |
| 4 | 1 | 8046150 | TANK WELDMENT 800 |
| 5 | 1 | X000113 | STRAIN RELIEF, 1/2" |
| 6 | 1 | 8040769 | HIGH LEVEL FLOAT SWITCH TUBE |
| | 1 | 8041291 | BUSHING, RUBBER |
| 7 | 1 | 8030531 | HIGH LEVEL FLOAT SWITCH |
| 8 | 4 | 8042812 | GROMMET, 2"ID 3"OD 1/4"WOG TRAILER SLOT MODEL |
| 9 | 1 | 8043139 | STROBE LIGHT |
| | 3 | U010006 | SCREW, PHILLIP #10-24 X 1.00" |
| | 3 | U210005 | WASHER, LOCK #10 |
| | 3 | U100010 | NUT, HEX #10-24 |
| 10 | 1 | 8046507 | STROBE LIGHT BRACKET |
| | 4 | X000343 | DT MOUNTING CLIP |
| | 4 | U000880 | SCREW, HC 1/2"-13 X 2.00" |
| | 4 | U200100 | WASHER, FLAT 1/2" |
| | 4 | U210111 | WASHER, LOCK 1/2" |
| | 4 | U100200 | NUT, HEX 1/2"-13 |
| 11 | 1 | 8041509 | LIGHT CLEARANCE 3 BAR |
| 12 | 1 | 8043138 | WORK LIGHT |
| 13 | 2 | 8030362 | 1" SNAP RING |
| 14 | 1 | 8040058 | DOOR HINGE ROD |
| 15 | 1 | 8041766 | SEAL, DOOR SQ 750/800LE |
| 16 | 1 | 8047771 | DOOR, HYD 800 SKID WELDMENT |
| 17 | 1 | 8031049 | GASKET, 4" COUPLER |
| 18 | 1 | 8031048 | SIGHT GLASS |
| 19 | 1 | 8031047 | SIGHT GLASS PLATE |
| 20 | 1 | 8031046 | SIGHT GLASS HAND WHEEL |
| 21 | 2 | 8046191 | GASKET, DOOR INLET/OUTLET |
| 22 | 1 | 8046215 | VALVE, 4" GATE BRASS LEVER FLANGE |
| | 1 | 8046231 | O-RING, GATE VALVE |
| 23 | 1 | 8046445 | CAMLOCK, 4"FCAM X MNPT |
| 24 | 1 | 8041212 | TANK SAFETY BRACE |
| 25 | 1 | 8046214 | VALVE, 6" GATE BRASS LEVER |
| 26 | 1 | 8046172 | TANK ROD 800LE WELDMENT |
| 27 | 1 | 8042648 | TANK PIVOT ROD |
| 28 | 4 | 8041686 | GROMMET, 1"ID - 1 1/4"WOG - 1/4"WO |

* NOT SHOWN

Tank and Door Assembly

1200



040413-E

VACASSY036

Tank and Door Assembly

1200

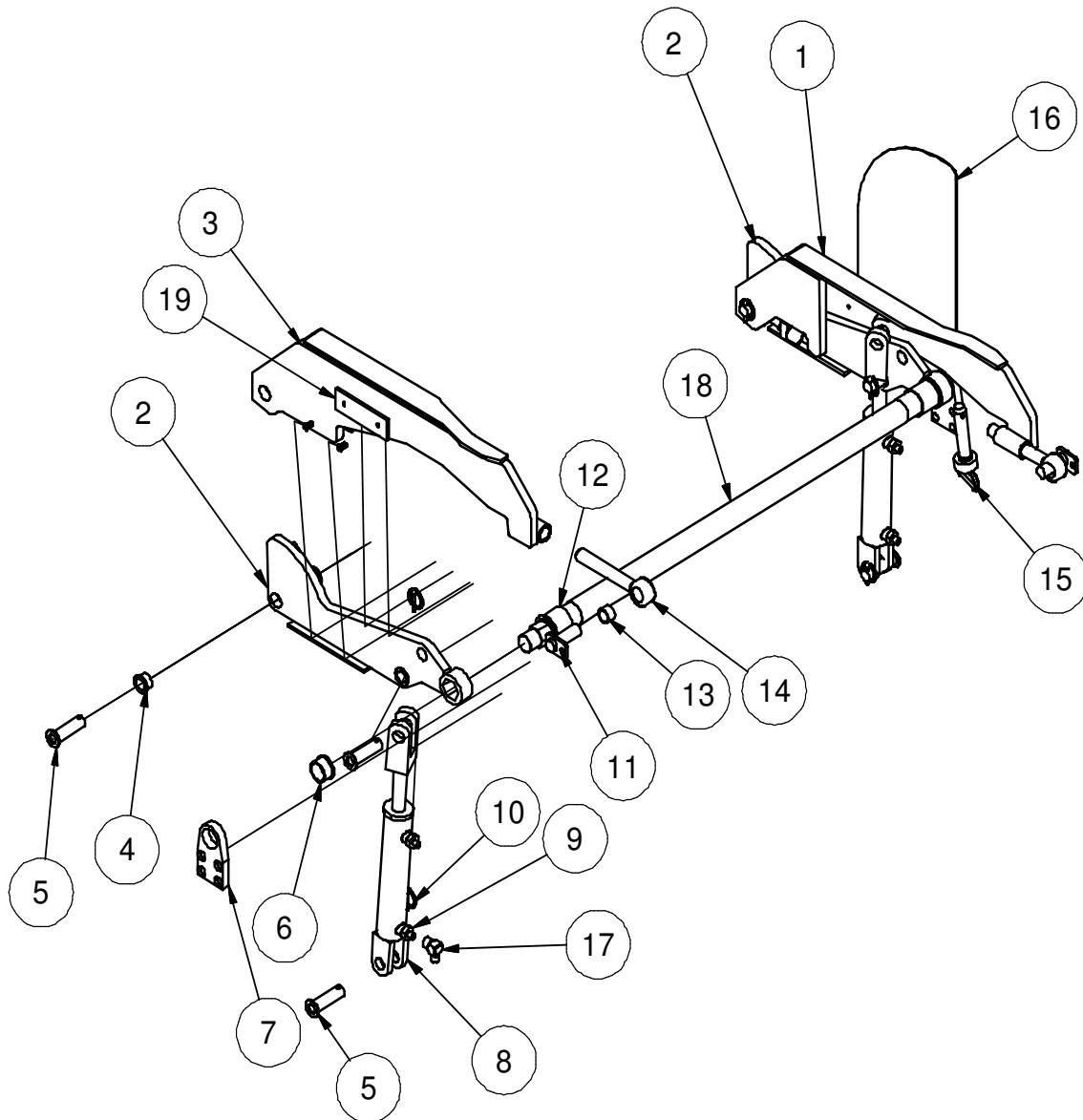
| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|------------|-----------------------------------|
| 1 | 1 | 8043570 | BALL STRAINLESS FLOAT 6" |
| 2 | 1 | 8043700 | BALL FLOAT SHUTOFF WELDMENT |
| | 2 | U000420 | SCREW, HC 3/8" - 16 X 1.00" |
| | 2 | U210060 | WASHER, LOCK 3/8" |
| | 1 | 8043571 | SEAT 4" RUBBER |
| | 1 | 8043572 | SEAT CLAMP 4" |
| 3 | 1 | X000113 | STRAIN RELIEF, 1/2" |
| 4 | 1 | 8040769 | HIGH LEVEL FLOAT SWITCH TUBE |
| 5 | 1 | 8030531 | HIGH LEVEL FLOAT SWITCH |
| 6 | 1 | 8048450 | TANK 1200 - WELDMENT |
| 7 | 4 | 8042812 | GROMMET 2"ID 3"OD 1/4"WOG TSM |
| 8 | 1 | 8043139 | LIGHT, STROBE LED DEUTSCH |
| | 3 | U010006 | SCREW, PHILLIPS #10 - 24 X 1.00" |
| | 3 | U210005 | WASHER, LOCK #10 |
| | 3 | U100010 | NUT, HEX #10 - 24 |
| 9 | 1 | 8046507 | STROBE LIGHT BRACKET |
| | 4 | U000880 | SCREW, HC 1/2" - 13 X 2.00" |
| | 4 | U200100 | WASHER, FLAT 1/2" |
| | 4 | U210111 | WASHER, LOCK 1/2" |
| | 4 | U100120 | NUT, HEX 1/2"-13 |
| | 1 | X000343 | DT MOUNTING CLIP |
| 10 | 1 | 8041509 | LIGHT CLEARANCE BAR |
| 11 | 2 | 8030362 | 1" SNAP RING |
| 12 | 1 | 8040058 | DOOR HINGE ROD |
| 13 | 1 | 8041767 | DOOR SEAL 54"DIA. TANK |
| 14 | 1 | 8048453 | DOOR 1200 WITH INLET (US) |
| | 1 | 8048454 | DOOR 1200 WITH INLET (AUS) |
| 15 | 1 | 8032007 | GASKET, 4" COUPLER |
| 16 | 1 | 8031048 | SIGHT GLASS |
| 17 | 1 | 8031047 | SIGHT GLASS PLATE |
| 18 | 1 | 8031046 | SIGHT GLASS HAND WHEEL |
| 19 | 2 | 8046191 | GASKET, INLET/OUTLET DOOR LE |
| 20 | 1 | 8042408 | 3" GATE VALVE BRASS LEVEL TYPE |
| 21 | 1 | 8041212 | TANK SAFETY BRACE |
| 22 | 1 | 8046214 | VALVE, 6" GATE BRASS LEVER |
| | 1 | 8030849-50 | HANDLE, 6" GATE VALVE (RIV MODEL) |
| 23 | 1 | 8043567 | TANK ROD 1200 (54" DIA TANK) |
| | 3 | 8030369 | NOZZLE, TANK CLEANOUT |
| 24 | 4 | 8041686 | GROMMET 1"ID 1 1/4"DOG 1/4"WO |
| 25 | 1 | 8047752 | TANK PIVOT ROD |
| 26 | 2 | 8040753 | CYLINDER PIN WELDMENT |
| | 2 | U000400 | SCREW, HC 3/8" - 16 X 1.00" |
| | 2 | U200600 | WASHER, FLAT 3/8" |
| | 2 | U210060 | WASHER, LOCK 3/8" |
| 27 | 2 | U160018 | NUT, LOCK .500-13 NY ZP |
| 28 | 2 | U200180 | WASHER FLAT 2.125ID X 4.5OD |
| 29 | 2 | U000900 | SCREW, HC .500-13X2.50 ZP G5 |

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040413-E

VACASSY036

Hyd. Door Cylinder Assembly



080415-E

VACASSY942

Hyd. Door Cylinder Assembly

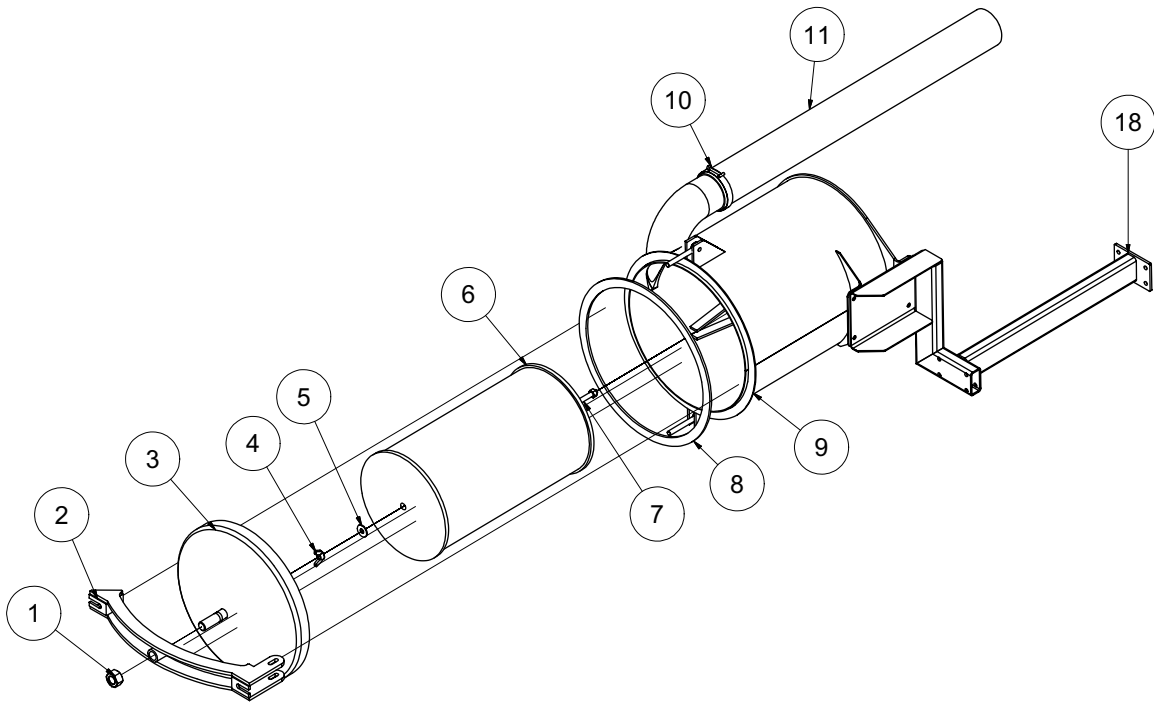
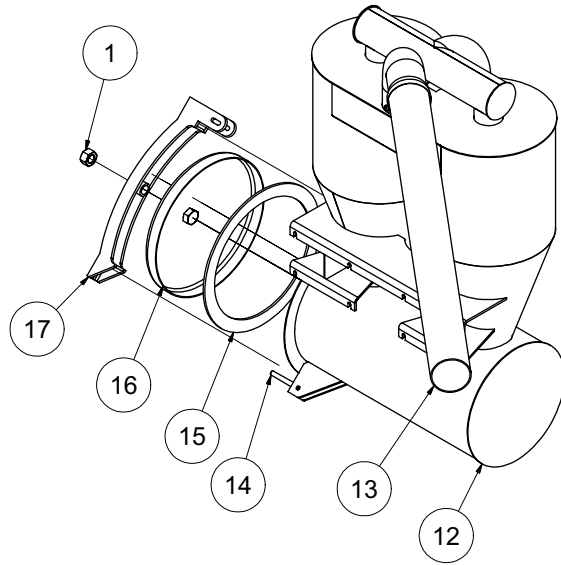
| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|----------|---------------------------------------|
| 1 | 1 | 8041369 | DOOR HYD LONG LINKAGE WELDMENT |
| 2 | 2 | 8049766 | SHORT LINKAGE WELDMENT |
| 3 | 1 | 8041375 | DOOR HYD LONG LINKAGE SS WELDMENT |
| 4 | 6 | 8041883 | BUSHING BRONZE FLANGED 1" |
| 5 | 6 | 8042489 | HYD DOOR - PIN WELDMENT 1"DIA X 3" |
| 6 | 2 | 8041602 | BUSHING 1 1/4" MODIFIED |
| 7 | 1 | 8041783 | OUTER BEARING PLATE |
| 8 | 2 | 8041327 | HYD CYLINDER - 8" STROKE |
| 9 | 4 | T400611 | UNION 8MB - 4MJ |
| 10 | 6 | U340050 | PIN LINCH 3/16 X 1 9/16 |
| 11 | 2 | 8043844 | DOOR CAPTURE PIN |
| 12 | 2 | 8041602 | BUSHING BRONZE FLANGED 2" |
| 13 | 2 | 8041524 | BUSHING BRONZE 1 1/4" X 1.00 X 3/4"LG |
| 14 | 2 | 8043131 | ROD END 1" X 7 1/2" |
| | 2 | U160025 | NUT, JAM 1.00" |
| | 2 | U120060 | NUT, NY LOCK 1" |
| | 4 | U200170 | WASHER, FLAT 1.00" |
| 15 | 1 | 8041626 | 1" X 4 1/2" HITCH PIN |
| 16 | 1 | 8041635 | HYD ARM GUARD |
| 17 | 1 | T401225 | ELBOW, 90 1/4MJ - 1/4FJ |
| 18 | 1 | 8041607 | LINKAGE CROSS TUBE V500 |
| | 1 | 8046186 | LINKAGE CROSS TUBE V750 / V800LE |
| | 1 | 8041663 | LINKAGE CROSS TUBE V800 / V1200 |
| 19 | 2 | 8049376 | PLASTIC STRIP, 1/4" X 2" X 6"LG |
| | 4 | U030017 | SCREW,SFH .250-20X1.00 ZP |
| | 4 | U120000 | NUT,LOCK, NY, .250-20 ZP G2 |
| | 4 | U200020 | WASHER FLAT .250 ZP |

080415-E

VACASSY942

Filtration

HD



102315-E

VACASSY347

Filtration

HD

| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|----------------|------------------------------------|
| 1 | 2 | U120060 | NUT, LOCK NY 1" - 8 |
| 2 | 1 | 8041554 | DOOR LATCH (HDAIR FILTER WELDMENT) |
| 3 | 1 | 8041387 | HDAIR FILTER DOME ASSY |
| 4 | 1 | U130080 | NUT, WING 1/2" - 13 |
| 5 | 1 | U200100 | WASHER, FLAT 1/2" |
| 6 | 1 | 8031293 | WASHABLE AIR FILTER ELEMENT |
| 7 | 1 | 8040302 | THREADED ROD - 4"LG |
| 8 | 1 | 8041613 | SEAL 3/8" EPDM 17. |
| 9 | 1 | 8046338 | HDAIR FILTER HOUSING |
| * | 10 | U200060 | WASHER, FLAT .375 |
| * | 1 | U000500 | SCREW, HC 3/8" - 16 X 2.00" |
| * | 1 | U000580 | SCREW, HC 3/8" - 16 X 3.50" |
| * | 4 | U000420 | SCREW, HC 3/8"-16 X 1.00" |
| * | 8 | U000440 | WASHER, FLAT 3/8" |
| * | 4 | U120110 | NYLON LOCKNUT 3/8"-16 |
| * | 2 | 8041594 | HANDLE, WING |
| 10 | 4 | 8042606 | CLAMP T-BOLT (450) |
| 11 | 1 | 8030657-189.00 | HOSE VAC KANAFLEX 4-189" (V500) |
| | 1 | 8030657-206.00 | HOSE VAC KANAFLEX 4-206" (V800) |
| | 1 | 8030657-156.00 | HOSE VAC KANAFLEX 4-156" (VSK300) |
| 12 | 1 | 8046458 | HD SEPARATOR - HOUSING ONLY |
| * | 10 | U000440 | WASHER, FLAT 3/8" |
| * | 1 | U000520 | SCREW, HC 3/8" - 16 X 2.25" |
| * | 1 | U000580 | SCREW, HC 3/8" - 16 X 3.50" |
| * | 2 | U120110 | NYLON LOCKOUT 3/8 - 16 |
| * | 2 | 8041594 | HANDLE, WING |
| * | 8 | U000420 | SCREW, HC 3/8"-16 X 1.00" |
| * | 16 | U200060 | WASHER, FLAT 3/8" |
| * | 8 | U210061 | NYLON LOCKNUT 3/8"-16 |
| 13 | 1 | 8041781 | HOSE VAC AG SUCTION 4-48" |
| 14 | 4 | 8041593 | BOLT, EYE 1/2" - 13 X 6" |
| 15 | 1 | 8041612 | SEAL 3/8" EPDM 14"ID, 17.25"OD |
| 16 | 1 | 8041402 | HD CYCLONE DOME DOOR ASSY |
| 17 | 1 | 8041552 | DOOR LATCH (CYCLONE) - WELDMENT |
| 18 | 1 | 8046243 | AIR FILTER BRACKET LE |
| * | 4 | U210060 | WASHER, LOCK 3/8" ZP |
| * | 4 | U000441 | SCREW, HC 3/8-16 X 1.25" |
| * | 4 | U000440 | WASHER, FLAT 3/8" |
| * | 4 | U100060 | NUT, HEX 3/8"-16 |

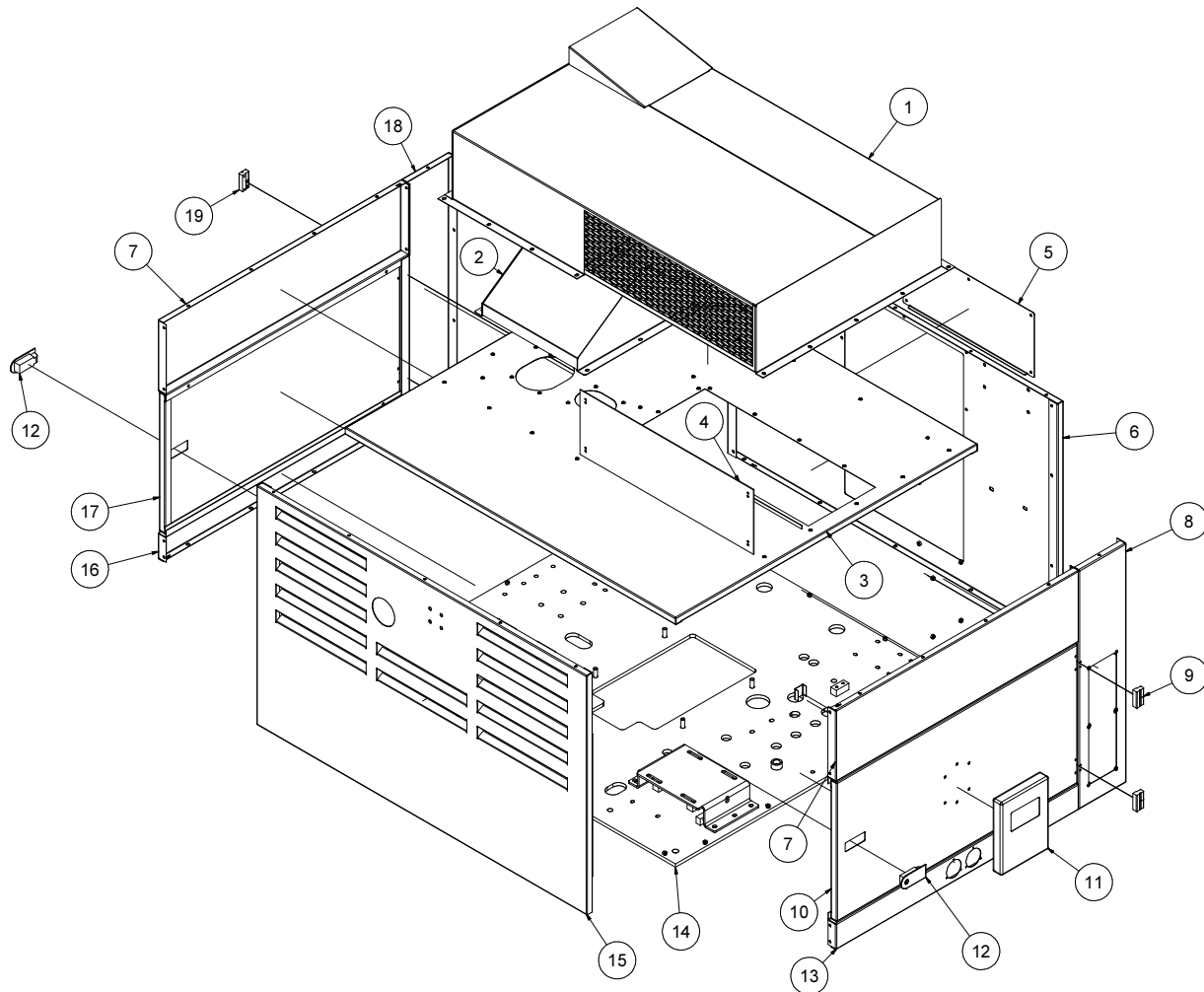
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102315-E

VACASSY347

Enclosure Assembly

67/85 HP



111015-E

VACASSY406

Enclosure Assembly

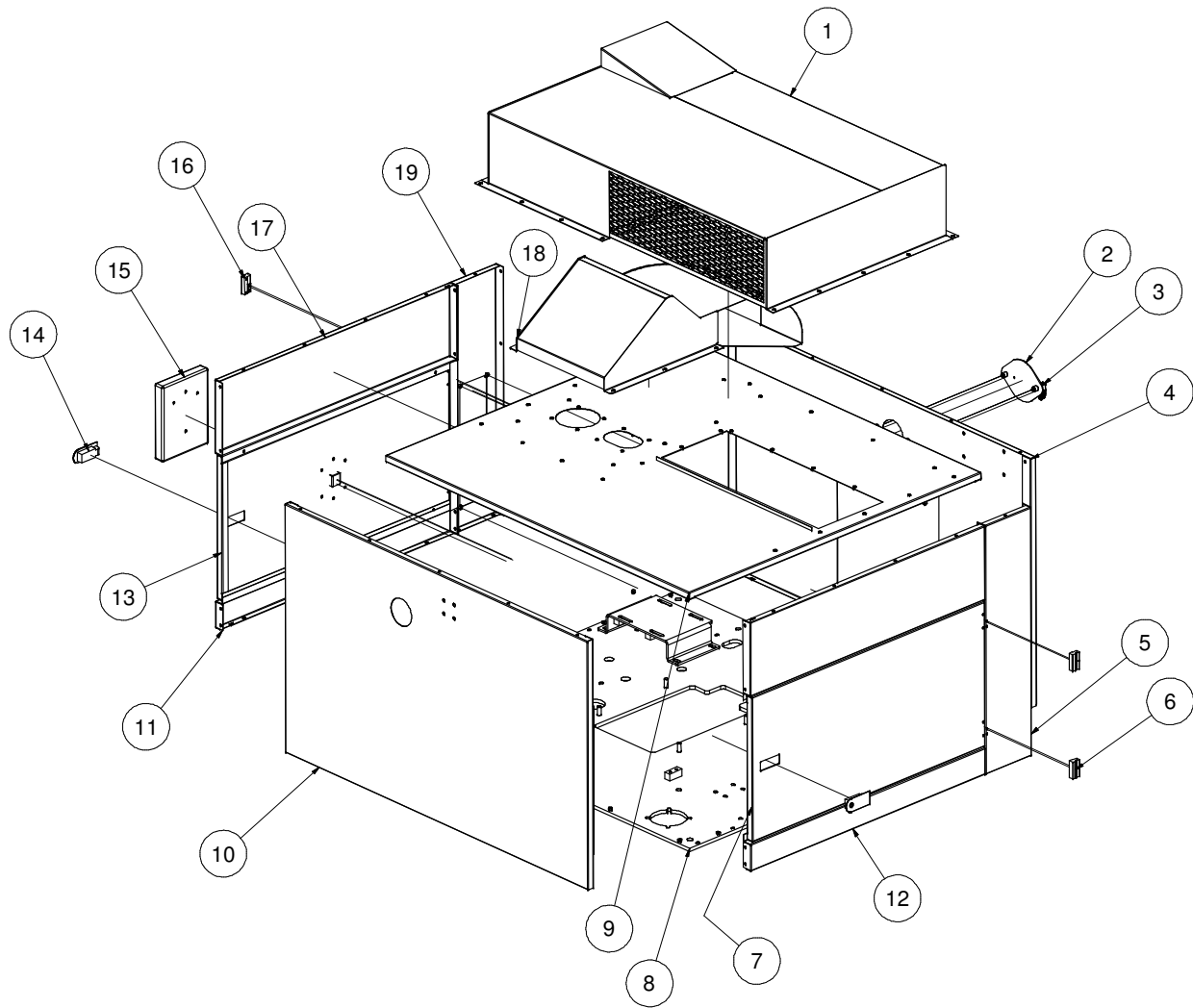
67/85 HP

| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|---------|---|
| 1 | 1 | 8048983 | INTAKE BOX |
| 2 | 1 | 8044283 | EXHAUST SHEILD |
| 3 | 1 | 8044250 | PANEL TOP |
| 4 | 1 | 8090879 | INTAKE BOX COVER |
| 5 | 1 | 8048431 | PANEL FRONT 99 ACCESS PANEL |
| 6 | 1 | 8048429 | PANEL FRONT |
| * | 1 | 8044301 | LS FRONT SOUND INSULATION |
| * | 1 | 8044302 | RS FRONT SOUND INSULATION |
| * | 1 | 8044930 | BELOW RADIATOR SOUND INSULATION |
| * | 1 | 8044931 | ABOVE RADIATOR SOUND INSULATION |
| 7 | 2 | 8044257 | PANEL SIDE UPPER |
| * | 2 | 8044308 | SIDE UPPER SOUND INSULATION |
| 8 | 1 | 8043614 | PANEL SIDE VERTICAL CONTROL |
| * | 1 | 8044303 | SIDE VERTICAL CONTOL PANEL SOUND INSULATION |
| 9 | 2 | 8040588 | OFFSET HINGE TYPE "A" |
| 10 | 1 | 8044260 | PANEL DOOR FOR MANUAL |
| * | 1 | 8044310 | DOOR SOUND INSULATION |
| 11 | 1 | E250211 | BOX, PLASTIC for SAFETY MANUAL |
| 12 | 2 | 8040586 | SEALED LEVER LATCH |
| | 1 | 8041816 | KEY DOOR SOUTHCO LATCH |
| 13 | 1 | 8044262 | PANEL SIDE LOWER GAUGES |
| * | 1 | 8044307 | SIDE LOWER SOUND INSULATION |
| 14 | 1 | 8047102 | MAIN PLATE |
| 15 | 1 | 8092838 | PANEL REAR |
| * | 1 | 8044306 | LS REAR SOUND INSULATION |
| * | 1 | 8044947 | RS REAR SOUND INSULATION |
| 16 | 1 | 8044254 | PANEL SIDE LOWER |
| * | 1 | 8044307 | SIDE LOWER SOUND INSULATION |
| 17 | 1 | 8044258 | PANEL DOOR |
| * | 1 | 8044309 | DOOR SOUND INSULATION |
| 18 | 1 | 8043922 | PANEL SIDE VERTICAL |
| * | 1 | 8044304 | SIDE VERTICAL SOUND INSULATION |
| 19 | 2 | 8040589 | OFFSET HINGE TYPE "B" |
| * | 20 | U000060 | SCREW, HC 1/4-20 X 1 |
| * | 36 | U000020 | SCREW, HC 1/4-20 X 1/2 |
| * | 112 | U200020 | WASHER, FLAT 1/4" |
| * | 36 | U120100 | NUT, HEX LOCK 1/4" |
| * | 1 | 8041171 | HANDLE |
| | 2 | U001017 | SCREW, HSH 1/4-20 X 1.25 |
| | 2 | U200020 | WASHER, FLAT 1/4" |
| | 2 | U120100 | NUT, HEX LOCK 1/4-20 |
| * | 2 | 8041504 | DOOR SEAL VERTICAL |
| * | 1 | 8044223 | EXHAUST FLANGE |
| * | 1 | 8048909 | EXHAUST INSULATION |

* NOT SHOWN

Enclosure Assembly

67/85 HP RC



062314-E

VACASSY415

Enclosure Assembly

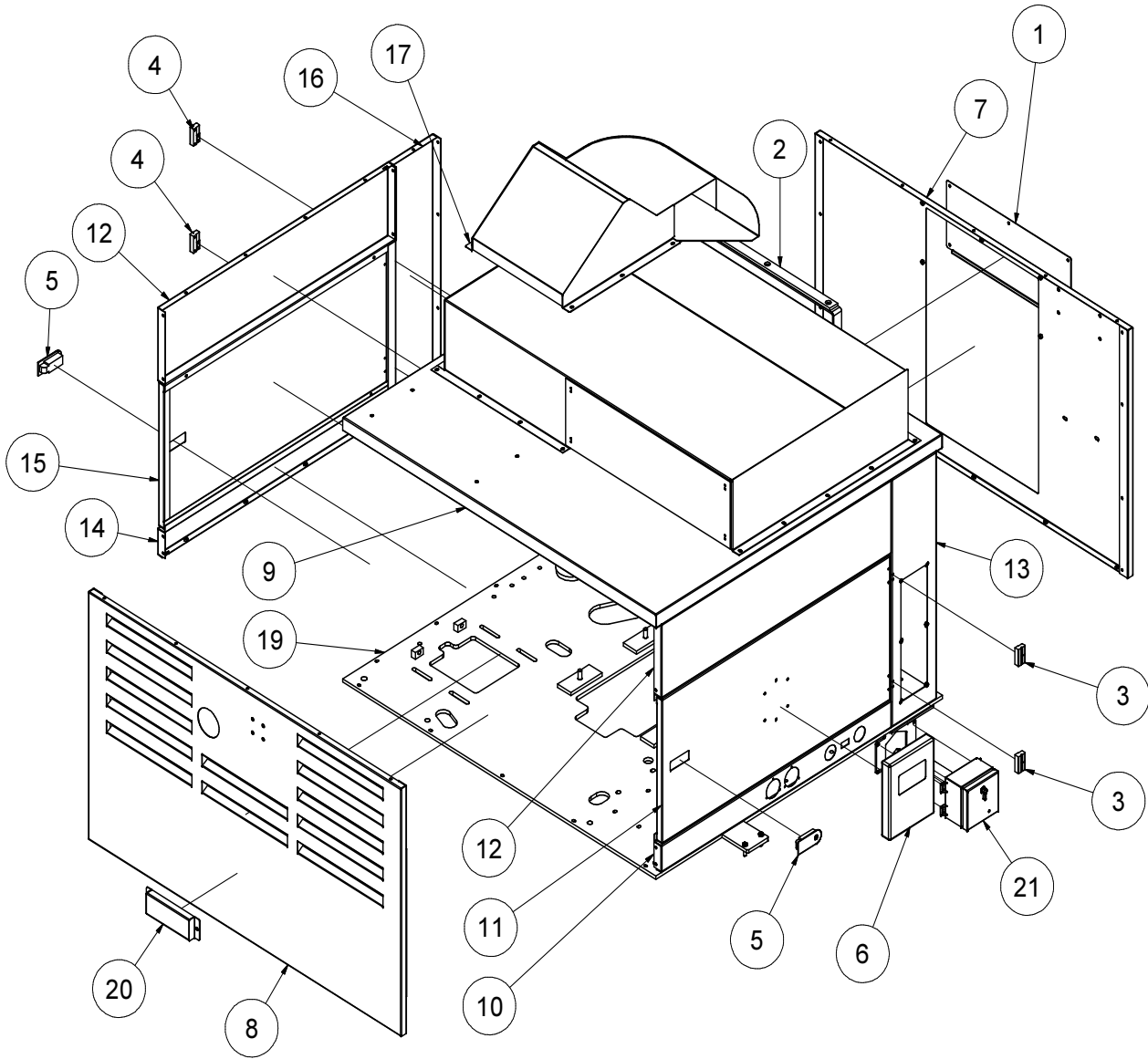
67/85 HP RC

| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|----------|--|
| 1 | 1 | 8048983 | INLET OUTLET BOX |
| 2 | 1 | 8040592 | ENCLOSURE RADIATOR COVER |
| 3 | 2 | 8040334 | SWELL LATCH |
| 4 | 1 | 8044248 | PANEL FRONT |
| * | 1 | 8044301 | LS FRONT SOUND INSULATION |
| * | 1 | 8044302 | RS FRONT SOUND INSULATION |
| * | 1 | 8044930 | BELOW RADIATOR SOUND INSULATION |
| * | 1 | 8044931 | ABOVE RADIATOR SOUND INSULATION |
| 5 | 1 | 8043924 | PANEL SIDE VERTICAL |
| * | 1 | 8044304 | SIDE VERTICAL SOUND INSULATION |
| 6 | 2 | 8040588 | OFFSET HINGE TYPE "A" |
| 7 | 1 | 8044258 | PANEL DOOR |
| * | 1 | 8044309 | DOOR SOUND INSULATION |
| 8 | 1 | 8047102 | 73HS MAIN PLATE WELDMENT |
| 9 | 1 | 8044250 | PANEL TOP WELDMENT |
| 10 | 1 | 8044252 | PANEL REAR |
| * | 1 | 8044306 | LS REAR SOUND INSULATION |
| * | 1 | 8044947 | RS REAR SOUND INSULATION |
| 11 | 1 | 8044262 | PANEL SIDE LOWER GAUGES |
| * | 1 | 8044307 | SIDE LOWER INSULATION |
| 12 | 1 | 8044254 | PANEL SIDE LOWER |
| * | 1 | 8044307 | SIDE LOWER INSULATION |
| 13 | 1 | 8044260 | PANEL DOOR W/TRANS. BOX 73HS |
| * | 1 | 8044310 | DOOR SOUND INSULATION |
| 14 | 2 | 8040586 | SEALED LEVER LATCH |
| | 1 | 8041816 | KEY DOOR SOUTHCO LATCH |
| 15 | 1 | E250210 | BOX, PLASTIC FOR SAFETY MANUAL |
| 16 | 2 | 8040589 | OFFSET HINGE TYPE "B" |
| 17 | 2 | 8044257 | PANEL SIDE UPPER 73HS |
| * | 2 | 8044308 | SIDE UPPER SOUND INSULATION |
| 18 | 1 | 8044283 | EXHAUST SHIELD |
| 19 | 1 | 8043917 | PANEL SIDE VERTICAL CTRL 49VK |
| * | 1 | 8044303 | SIDE VERTICAL CONTROL PANEL SOUND INSULATION |
| * | 1 | 8044223 | EXHAUST FLANGE |
| * | 1 | 8048909 | EXHAUST INSULATION |

* NOT SHOWN

Enclosure Assembly

99HP



111015-E

VACASSY420

Enclosure Assembly

99HP

| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|---------|---|
| 1 | 1 | 8048431 | ENCLOSURE ACCESS COVER PANEL |
| 2 | 2 | 8093348 | BOOM HOSE SUPPORT (800 & 1200 UNITS) |
| 3 | 2 | 8040588 | OFFSET HINGE TYPE B |
| 4 | 8 | U010010 | SCREW, HSH #10-32 X 3/8" |
| | 2 | 8040589 | OFFSET HINGE TYPE A |
| 5 | 8 | U010010 | SCREW, HSH #10-32 X 3/8" |
| | 2 | 8040586 | SEALED LEVER LATCH |
| 6 | 1 | 8041816 | KEY DOOR SOUTHCO LATCH |
| | 1 | E250210 | MANUAL BOX |
| 7 | 1 | 8048429 | 99HP - PANEL FRONT |
| | 1 | 8044301 | 73HP SOUND INSULATION FRONT LEFT HAND |
| | 1 | 8044302 | 73HP SOUND INSULATION FRONT RIGHT HAND |
| | 1 | 8044930 | 73HP SOUND INSULATION BELOW RADIATOR |
| | 1 | 8044931 | 73HP SOUND INSULATION ABOVE RADIATOR |
| | 1 | 8092838 | PANEL REAR WELDMENT 99HP |
| | 1 | 8044306 | 73HP SOUND INSULATION BACK RS |
| | 1 | 8044947 | 73HP SOUND INSULATION BACK LS |
| | 1 | 8046893 | PANEL TOP 99AW WELDMENT |
| | 10 | 1 | 8044256 |
| 11 | 1 | 8044307 | 73HP SOUND INSULATION UNDER DOOR |
| | 1 | 8044260 | 73HS SOUND INSULATION W/ TRANSMITTER MOUNT WELDMENT |
| 12 | 1 | 8044310 | 73HP SOUND INSULATION RH DOOR |
| | 2 | 8044257 | 73HS PANEL SIDE UPPER |
| 13 | 2 | 8044308 | 73HP SOUND INSULATION ABOVE DOOR |
| | 1 | 8043614 | 49VK VERTICAL CONTROL WELDMENT |
| 14 | 1 | 8044303 | 73HP SOUND INSULATION CONTROL PANEL |
| | 1 | 8044254 | 73HS PANEL SIDE LOWER WELDMENT |
| 15 | 1 | 8044307 | 73HP SOUND INSULATION UNDER DOOR |
| | 1 | 8044258 | 73HS PANEL SIDE DOOR |
| 16 | 1 | 8044309 | 73HP SOUND INSULATION LH DOOR |
| | 1 | 8043922 | 49VK PANEL SIDE VERTICAL BLANK WELDMENT |
| 17 | 1 | 8044304 | 73HP SOUND INSULATION OPP. CONTROL PANEL |
| | 1 | 8044283 | EXHAUST SHIELD |
| 18 | 1 | 8048983 | INLET OUTLET BOX |
| 19 | 1 | 8049079 | MAIN PLATE 99HP HD LE - WELDMENT |
| | 1 | 8049081 | MAIN PLATE 99HP HD XT (1025) - WELDMENT |
| | 1 | 8047282 | MAIN PLATE 99HP HD AW - WELDMENT |
| | 1 | 8047398 | MAIN PLATE 99HP HD XT (1200) - WELDMENT |
| 20 | 1 | 8046716 | PANEL GUARD ENGINE SHAFT 99AWJ |
| 21 | 1 | 8049096 | ENCLOSURE GAUGE BOX AW |
| | 1 | 8045133 | GAUGE, AIR PRESSURE |
| | 1 | 8045132 | GAUGE, OIL TEMP |
| * | 20 | U000060 | SCREW,HC 1/4-20X1 |
| * | 36 | U000020 | SCREW,HC 1/4-20X1/2 |
| * | 112 | U200020 | WASHER,FLAT 1/4 |
| * | 36 | U120100 | NUT,HEX LOCK 1/4 |
| * | 1 | 8041171 | HANDLE |
| | 2 | U001017 | SCREW,HSH 1/4-20X1.25 |
| | 2 | U200020 | WASHER,FLAT 1/4 |
| | 2 | U120100 | NUT,HEX LOCK 1/4-20 |
| * | 2 | 8041483 | DOOR SEAL VERTICAL |
| * | 1 | 8044223 | ENCLOSURE EXHAUST FLANGE |
| * | 1 | 8048909 | EXHAUST INSULATION |

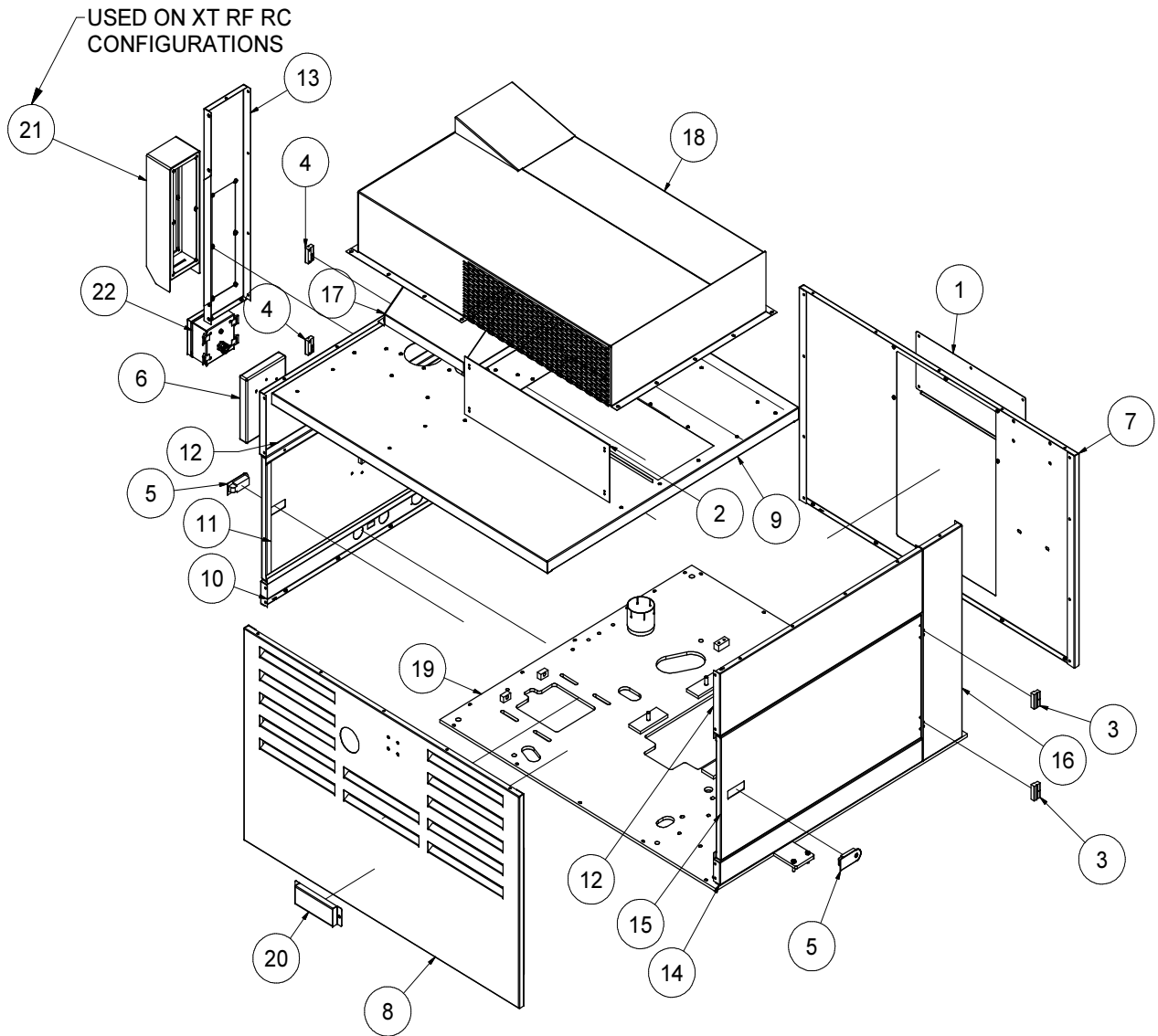
* NOT SHOWN

111015-E

VACASSY420

Enclosure Assembly

99HP RC



111015-E

VACASSY421

Enclosure Assembly

99HP RC

| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|---------|---|
| 1 | 1 | 8048431 | ENCLOSURE ACCESS COVER PANEL |
| 2 | 2 | 8040334 | SWELL LATCH |
| | 2 | U120147 | NUT, FLANGED LOCK 5/16"-24 |
| 3 | 2 | 8040588 | OFFSET HINGE TYPE B |
| | 8 | U010010 | SCREW, HSH #10-32 X 3/8" |
| 4 | 2 | 8040589 | OFFSET HINGE TYPE A |
| | 8 | U010010 | SCREW, HSH #10-32 X 3/8" |
| 5 | 2 | 8040586 | SEALED LEVER LATCH |
| | 1 | 8041816 | KEY DOOR SOUTHCO LATCH |
| 6 | 1 | E250210 | MANUAL BOX |
| 7 | 1 | 8048429 | 99HP - PANEL FRONT |
| | 1 | 8044301 | 73HP SOUND INSULATION FRONT LEFT HAND |
| | 1 | 8044302 | 73HP SOUND INSULATION FRONT RIGHT HAND |
| | 1 | 8044930 | 73HP SOUND INSULATION BELOW RADIATOR |
| | 1 | 8044931 | 73HP SOUND INSULATION ABOVE RADIATOR |
| 8 | 1 | 8092838 | 99HP PANEL REAR WELDMENT |
| | 1 | 8044306 | 73HP SOUND INSULATION BACK RS |
| | 1 | 8044947 | 73HP SOUND INSULATION BACK LS |
| 9 | 1 | 8046893 | PANEL TOP 99AW WELDMENT |
| 10 | 1 | 8044256 | 87HS PANEL SIDE LWR GAUGES WELDMENT (AIR WATER) |
| | 1 | 8044307 | 73HP SOUND INSULATION UNDER DOOR |
| 11 | 1 | 8044260 | 73HS SOUND INSULATION W/ TRANSMITTER MOUNT WELDMENT |
| | 1 | 8044310 | 73HP SOUND INSULATION RH DOOR |
| 12 | 2 | 8044257 | 73HS PANEL SIDE UPPER |
| | 2 | 8044308 | 73HP SOUND INSULATION ABOVE DOOR |
| 13 | 1 | 8043614 | 49VK VERTICAL CONTROL WELDMENT |
| | 1 | 8044303 | 73HP SOUND INSULATION CONTROL PANEL |
| 14 | 1 | 8044254 | 73HS PANEL SIDE LOWER WELDMENT |
| | 1 | 8044307 | 73HP SOUND INSULATION UNDER DOOR |
| 15 | 1 | 8044258 | 73HS PANEL SIDE DOOR |
| | 1 | 8044309 | 73HP SOUND INSULATION LH DOOR |
| 16 | 1 | 8043922 | 49VK PANEL SIDE VERTICAL BLANK WELDMENT |
| | 1 | 8044304 | 73HP SOUND INSULATION OPP. CONTROL PANEL |
| 17 | 1 | 8044283 | EXHAUST SHIELD |
| 18 | 1 | 8048983 | INLET OUTLET BOX |
| 19 | 1 | 8049079 | MAIN PLATE 99HP HD LE - WELDMENT |
| | 1 | 8049081 | MAIN PLATE 99HP HD XT (1025) - WELDMENT |
| | 1 | 8047282 | MAIN PLATE 99HP HD AW - WELDMENT |
| | 1 | 8047398 | MAIN PLATE 99HP HD XT (1200) - WELDMENT |
| 20 | 1 | 8046716 | PANEL GUARD ENGINE SHAFT 99AWJ |
| 21 | 1 | 8048170 | PANEL U-EXTENSION |
| 22 | 1 | 8049096 | ENCLOSURE GAUGE BOX AW |
| | 1 | 8045133 | GAUGE, AIR PRESSURE |
| | 1 | 8045132 | GAUGE, OIL TEMP |
| * | 20 | U000060 | SCREW,HC 1/4-20X1 |
| * | 36 | U000020 | SCREW,HC 1/4-20X1/2 |
| * | 112 | U200020 | WASHER,FLAT 1/4 |
| * | 36 | U120100 | NUT,HEX LOCK 1/4 |
| * | 1 | 8041171 | HANDLE |
| | 2 | U001017 | SCREW,HSH 1/4-20X1.25 |
| | 2 | U200020 | WASHER,FLAT 1/4 |
| | 2 | U120100 | NUT,HEX LOCK 1/4-20 |
| * | 2 | 8041483 | DOOR SEAL VERTICAL |
| * | 1 | 8048909 | EXHAUST INSULATION |
| * | 1 | 8044223 | EXHAUST INSULATION FLANGE |

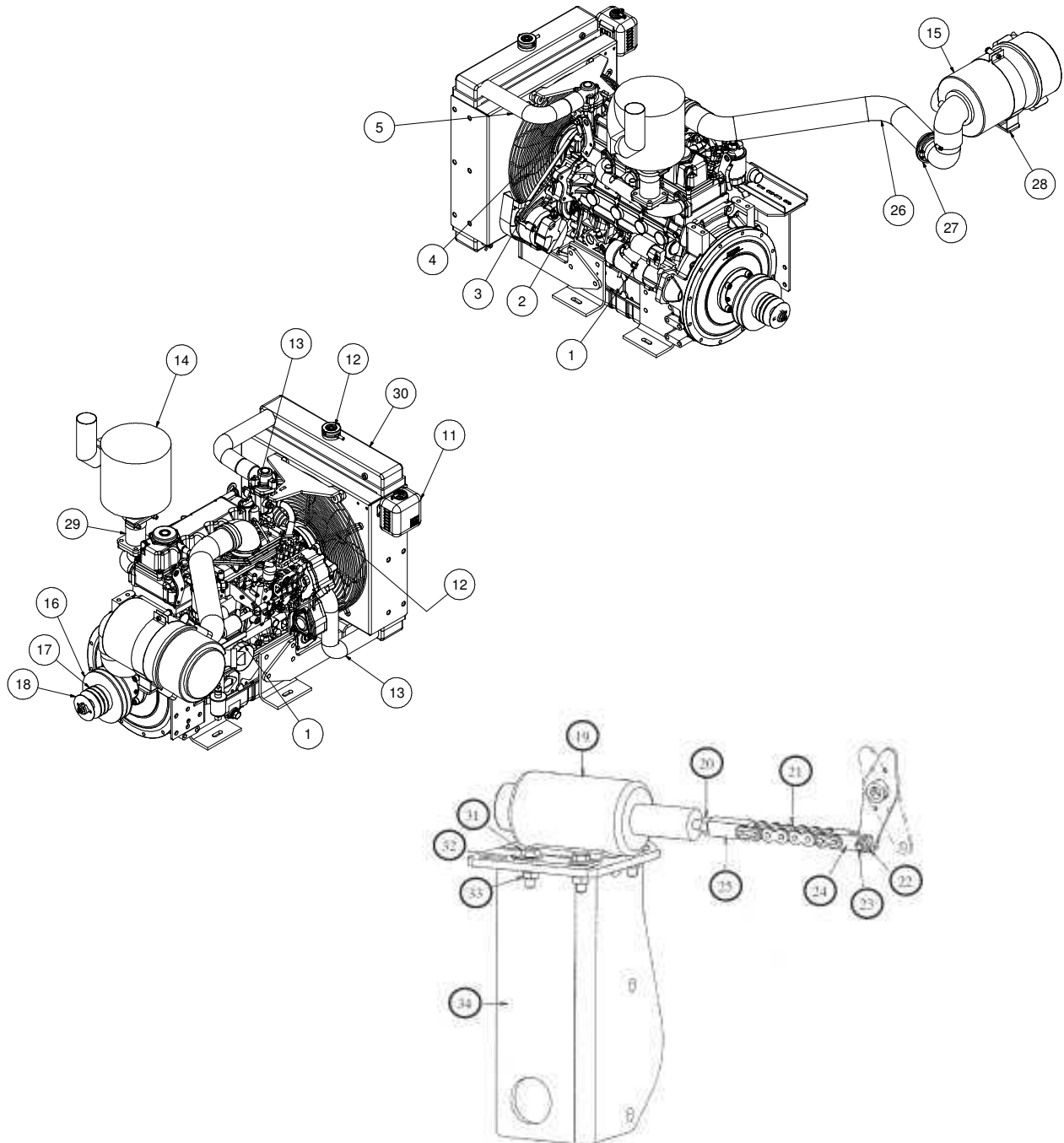
* NOT SHOWN

111015-E

VACASSY421

Engine Kubota V3600

70HP



062314-E

VACASSY01806

Engine Kubota V3600

70HP

| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|------------|---|
| | 1 | 8048503 | ENGINE |
| 1 | 1 | 8045583 | STARTER |
| 2 | 1 | 8030960 | OIL PRESSURE SWITCH |
| 3 | 1 | 8045584 | FAN BELT |
| 4 | 1 | 8043952 | WATER TEMPERTURE SWITCH |
| 5 | 1 | 8045585 | UPPER RADIATOR HOSE |
| 6 | 1 | 8032002 | OIL FILTER |
| 7 | 1 | 8045586 | LOWER RADIATOR HOSE |
| 8 | 1 | 8045587 | ALTERNATOR |
| 9 | 1 | 8045588 | FAN |
| 10 | 1 | 8045589 | FUEL SHUTOFF SOLENOID |
| 11 | 1 | 8045590 | OVERFLOW TANK |
| | | | OVERFLOW TANK CAP (Sold With Tank) |
| 12 | 1 | 8045591 | RADIATOR CAP |
| 13 | 1 | 8045592 | THERMOSTAT |
| 14 | 1 | 8045593 | MUFFLER |
| 15 | 1 | 8045594 | AIR FILTER HOUSING |
| * | 1 | 8041055 | AIR FILTER ELEMENT (INNER) |
| * | 1 | 8041054 | AIR FILTER ELEMENT (OUTER) |
| 16 | 1 | 8040482 | SHEAVE, BLOWER 8.35" OD 2517 TL |
| | 1 | 8040483 | BUSHING, TL2517 1 7/16" |
| 17 | 1 | 8041799 | KEYWAY RETAINER |
| 18 | 1 | 8040480 | SHEAVE, WATERPUMP 4.15" OD SH 2-GROOVE |
| | 1 | 8040481 | BUSHING, 1 7/16" SH |
| * | 1 | 8041053 | FUEL FILTER |
| * | 1 | 8090999 | FUEL PUMP |
| * | 1 | T400106 | RADIATOR DRAIN FITTING |
| * | 1 | 8047108 | BRACKET, WATER SEPARATOR |
| * | 1 | 8047266 | FUEL /WATER SEPARATOR |
| | 1 | 8047266-01 | FILTER, FUEL /WATER SEPARATOR |
| 19 | 1 | 8046364-33 | THROTTLE SOLENOID |
| 20 | 1 | 8046364-24 | NUT, HEX 5/16"-24 |
| 21 | 1 | 8046364-25 | CHAIN, NICKEL PLATED |
| 22 | 1 | 8046364-32 | NUT, HEX NYLOCK 1/4"-20 |
| 23 | 1 | 8046364-31 | BOLT, HEX 1/4" X .75"LG |
| 24 | 1 | 8046364-30 | CLEVIS, THROTTLE SOLENOID |
| 25 | 1 | 8046364-29 | ROD END, THROTTLE SOLENOID |
| 26 | 1 | 8048485 | AIR CLEANER RELOCATION HOSE |
| 27 | 1 | 8048266 | EDGE GUARD |
| 28 | 1 | 8048024 | MOUNTING PLATE |
| | 4 | U000420 | SCREW,HC 3/8"-16 X 1.00" ZP G5 |
| | 4 | U120110 | NUT, LOCK 3/8-16 NY |
| | 4 | U200060 | WASHER, FLAT 3/8" ZP |
| | 4 | U210060 | WASHER, LOCK 3/8" ZP |
| 29 | 1 | 8047103-15 | EXHAUST PIPE FLANGE |
| 30 | 1 | 8047103-05 | RADIATOR |
| 31 | 4 | 8046364-26 | BOLT, HEX 5/16 X 1.00"LG |
| 32 | 4 | 8046364-27 | WASHER, FLAT 5/16" |
| 33 | 4 | 8046364-28 | NUT, HEX FLANGE SERRATED 5/16 - 18 |
| 34 | 1 | 8046364-34 | THROTTLE SOLENOID BRACKET |
| | | | |
| * | 1 | X300299 | CABLE BATTERY KIT 67-99HP WITH ELECT. HYD. PUMP |
| * | 1 | 8090994 | KIT, FUEL PUMP |

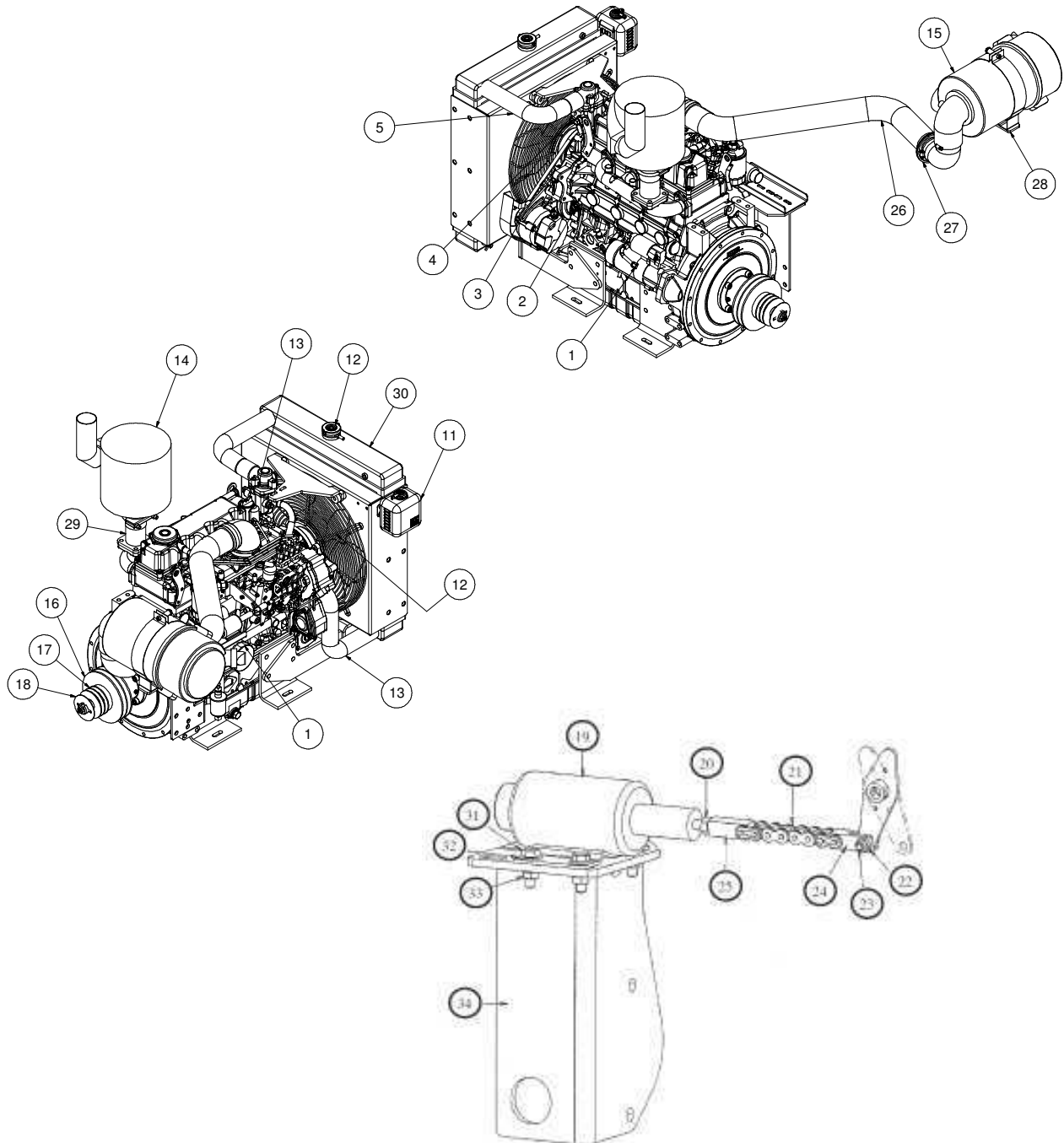
* Not Shown

062314-E

VACASSY01806

Engine Kubota V3600

Boom/ Aux. Hyd. 70HP



062314-E

VACASSY01802

Engine Kubota V3600

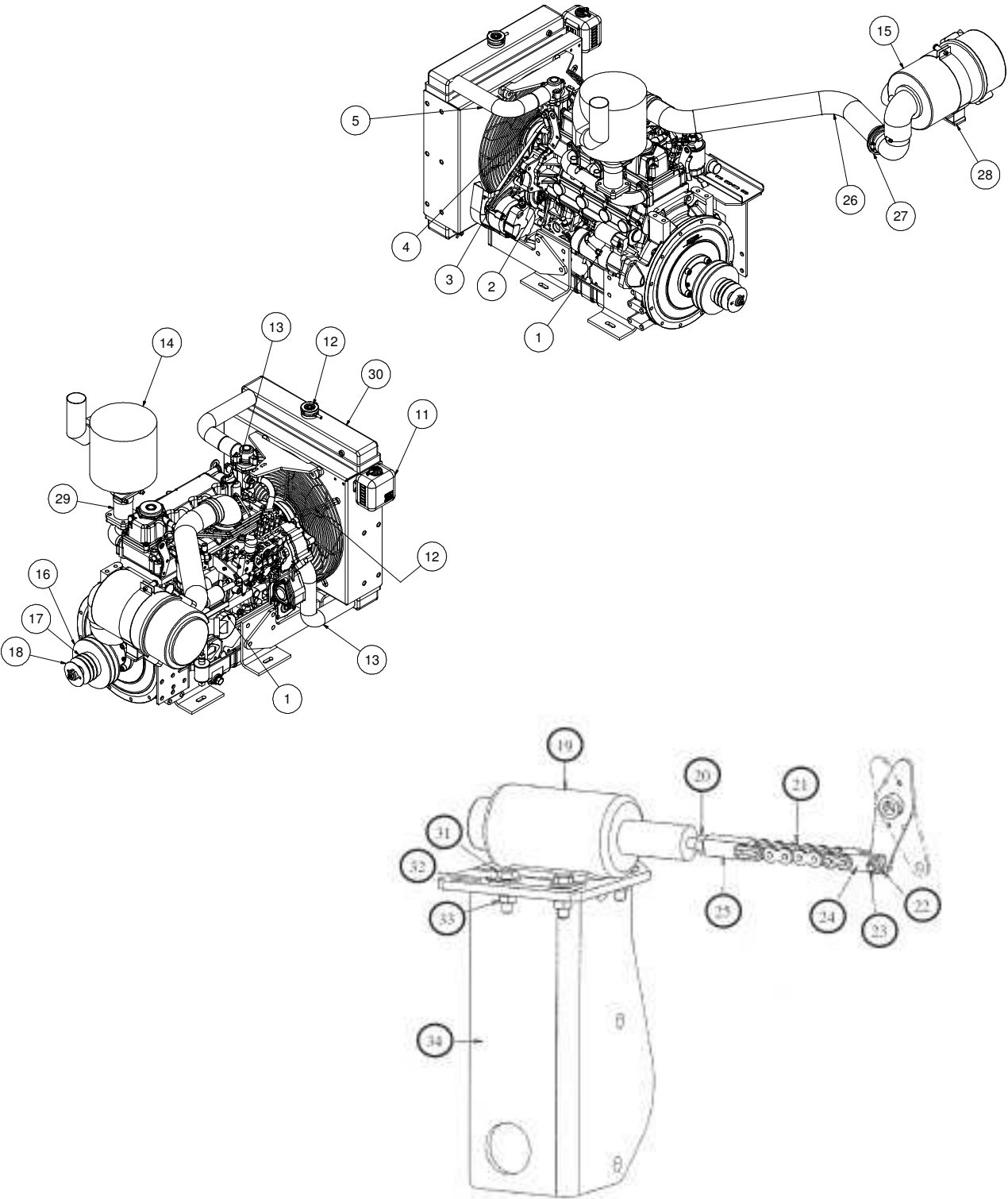
**Boom/
Aux. Hyd.
70HP**

| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|------------|--|
| | 1 | 8048503 | ENGINE |
| 1 | 1 | 8045583 | STARTER |
| 2 | 1 | 8030960 | OIL PRESSURE SWITCH |
| 3 | 1 | 8045584 | FAN BELT |
| 4 | 1 | 8043952 | WATER TEMPERTURE SWITCH |
| 5 | 1 | 8045585 | UPPER RADIATOR HOSE |
| 6 | 1 | 8032002 | OIL FILTER |
| 7 | 1 | 8045586 | LOWER RADIATOR HOSE |
| 8 | 1 | 8045587 | ALTERNATOR |
| 9 | 1 | 8045588 | FAN |
| 10 | 1 | 8045589 | FUEL SHUTOFF SOLENOID |
| 11 | 1 | 8045590 | OVERFLOW TANK |
| | | | OVERFLOW TANK CAP (Sold With Tank) |
| 12 | 1 | 8045591 | RADIATOR CAP |
| 13 | 1 | 8045592 | THERMOSTAT |
| 14 | 1 | 8045593 | MUFFLER |
| 15 | 1 | 8045594 | AIR FILTER HOUSING |
| * | 1 | 8041055 | AIR FILTER ELEMENT (INNER) |
| * | 1 | 8041054 | AIR FILTER ELEMENT (OUTER) |
| 16 | 1 | 8040482 | SHEAVE, BLOWER 8.35" OD 2517 TL |
| | 1 | 8040483 | BUSHING, TL2517 1 7/16" |
| 17 | 1 | 8041799 | KEYWAY RETAINER |
| 18 | 1 | 8040480 | SHEAVE, WATERPUMP 4.15" OD SH 2-GROOVE |
| | 1 | 8040481 | BUSHING, 1 7/16" SH |
| * | 1 | 8041053 | FUEL FILTER |
| * | 1 | 8090999 | FUEL PUMP |
| * | 1 | T400106 | RADIATOR DRAIN FITTING |
| * | 1 | 8047108 | BRACKET, WATER SEPARATOR |
| * | 1 | 8047266 | FUEL/WATER SEPARATOR |
| | 1 | 8047266-01 | FILTER, FUEL/WATER SEPARATOR |
| 19 | 1 | 8046364-33 | THROTTLE SOLENOID |
| 20 | 1 | 8046364-24 | NUT, HEX 5/16"-24 |
| 21 | 1 | 8046364-25 | CHAIN, NICKEL PLATED |
| 22 | 1 | 8046364-32 | NUT, HEX NYLOCK 1/4"-20 |
| 23 | 1 | 8046364-31 | BOLT, HEX 1/4" X .75"LG |
| 24 | 1 | 8046364-30 | CLEVIS, THROTTLE SOLENOID |
| 25 | 1 | 8046364-29 | ROD END, THROTTLE SOLENOID |
| 26 | 1 | 8048485 | AIR CLEANER RELOCATION HOSE |
| 27 | 1 | 8048266 | EDGE GUARD |
| 28 | 1 | 8048024 | MOUNTING PLATE |
| | 4 | U000420 | SCREW,HC 3/8"-16 X 1.00" ZP G5 |
| | 4 | U120110 | NUT, LOCK 3/8-16 NY |
| | 4 | U200060 | WASHER, FLAT 3/8" ZP |
| | 4 | U210060 | WASHER, LOCK 3/8" ZP |
| 29 | 1 | 8047103-15 | EXHAUST PIPE FLANGE |
| 30 | 1 | 8047103-05 | RADIATOR |
| 31 | 4 | 8046364-26 | BOLT, HEX 5/16 X 1.00"LG |
| 32 | 4 | 8046364-27 | WASHER, FLAT 5/16" |
| 33 | 4 | 8046364-28 | NUT, HEX FLANGE SERRATED 5/16 - 18 |
| 34 | 1 | 8046364-34 | THROTTLE SOLENOID BRACKET |
| * | 1 | X300296 | CABLE BATTERY KIT 67-99HP WITH NO ELECT. HYD. PUMP |
| * | 1 | 8090994 | KIT, FUEL PUMP |

* Not Shown

Engine Kubota V3600

85HP



061014-E

VACASSY01805

Engine Kubota V3600

85HP

| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|------------|---------------------------------------|
| | 1 | 8091184 | ENGINE |
| 1 | 1 | 8045583 | STARTER |
| 2 | 1 | 8030960 | OIL PRESSURE SWITCH |
| 3 | 1 | 8045584 | FAN BELT |
| 4 | 1 | 8043952 | WATER TEMPERTURE SWITCH |
| 5 | 1 | 8045585 | UPPER RADIATOR HOSE |
| 6 | 1 | 8032002 | OIL FILTER |
| 7 | 1 | 8045586 | LOWER RADIATOR HOSE |
| 8 | 1 | 8045587 | ALTERNATOR |
| 9 | 1 | 8045588 | FAN |
| 10 | 1 | 8045589 | FUEL SHUTOFF SOLENOID |
| 11 | 1 | 8045590 | OVERFLOW TANK |
| | | | OVERFLOW TANK CAP (Sold With Tank) |
| 12 | 1 | 8045591 | RADIATOR CAP |
| 13 | 1 | 8045592 | THERMOSTAT |
| 14 | 1 | 8045593 | MUFFLER |
| 15 | 1 | 8045594 | AIR FILTER HOUSING |
| * | 1 | 8041055 | AIR FILTER ELEMENT (INNER) |
| * | 1 | 8041054 | AIR FILTER ELEMENT (OUTER) |
| 16 | 1 | 8090642 | SHEAVE, BLOWER 8.95" OD SK 2 GROOVE |
| | 1 | 8049383 | BUSHING, 1 1/2" SK |
| 17 | 1 | 8041799 | KEYWAY RETAINER |
| 18 | 1 | 8043309 | SHEAVE, WATERPUMP 4.35"OD SH 2-GROOVE |
| | 1 | 8049387 | BUSHING, 1 1/2" SH |
| * | 1 | 8041053 | FUEL FILTER |
| * | 1 | 8090999 | FUEL PUMP |
| * | 1 | T400106 | RADIATOR DRAIN FITTING |
| * | 1 | 8047108 | BRACKET, WATER SEPARATOR |
| * | 1 | 8047266 | FUEL / WATER SEPARATOR |
| | 1 | 8047266-01 | FILTER, FUEL / WATER SEPARATOR |
| 19 | 1 | 8046364-33 | THROTTLE SOLENOID |
| 20 | 1 | 8046364-24 | NUT, HEX 5/16"-24 |
| 21 | 1 | 8046364-25 | CHAIN, NICKEL PLATED |
| 22 | 1 | 8046364-32 | NUT, HEX NYLOCK 1/4"-20 |
| 23 | 1 | 8046364-31 | BOLT, HEX 1/4" X .75"LG |
| 24 | 1 | 8046364-30 | CLEVIS, THROTTLE SOLENOID |
| 25 | 1 | 8046364-29 | ROD END, THROTTLE SOLENOID |
| 26 | 1 | 8048485 | AIR CLEANER RELOCATION HOSE |
| 27 | 1 | 8048266 | EDGE GUARD |
| 28 | 1 | 8048024 | MOUNTING PLATE |
| | 4 | U000420 | SCREW,HC 3/8"-16 X 1.00" ZP G5 |
| | 4 | U120110 | NUT, LOCK 3/8-16 NY |
| | 4 | U200060 | WASHER, FLAT 3/8" ZP |
| | 4 | U210060 | WASHER, LOCK 3/8" ZP |
| 29 | 1 | 8047103-15 | EXHAUST PIPE FLANGE |
| 30 | 1 | 8047103-05 | RADIATOR |
| 31 | 4 | 8046364-26 | BOLT, HEX 5/16 X 1.00"LG |
| 32 | 4 | 8046364-27 | WASHER, FLAT 5/16" |
| 33 | 4 | 8046364-28 | NUT, HEX FLANGE SERRATED 5/16 - 18 |
| 34 | 1 | 8046364-34 | THROTTLE SOLENOID BRACKET |

* 1 X300299 CABLE BATTERY KIT 67-99HP WITH ELECT. HYD. PUMP
 * 1 8090999 KIT, FUEL PUMP

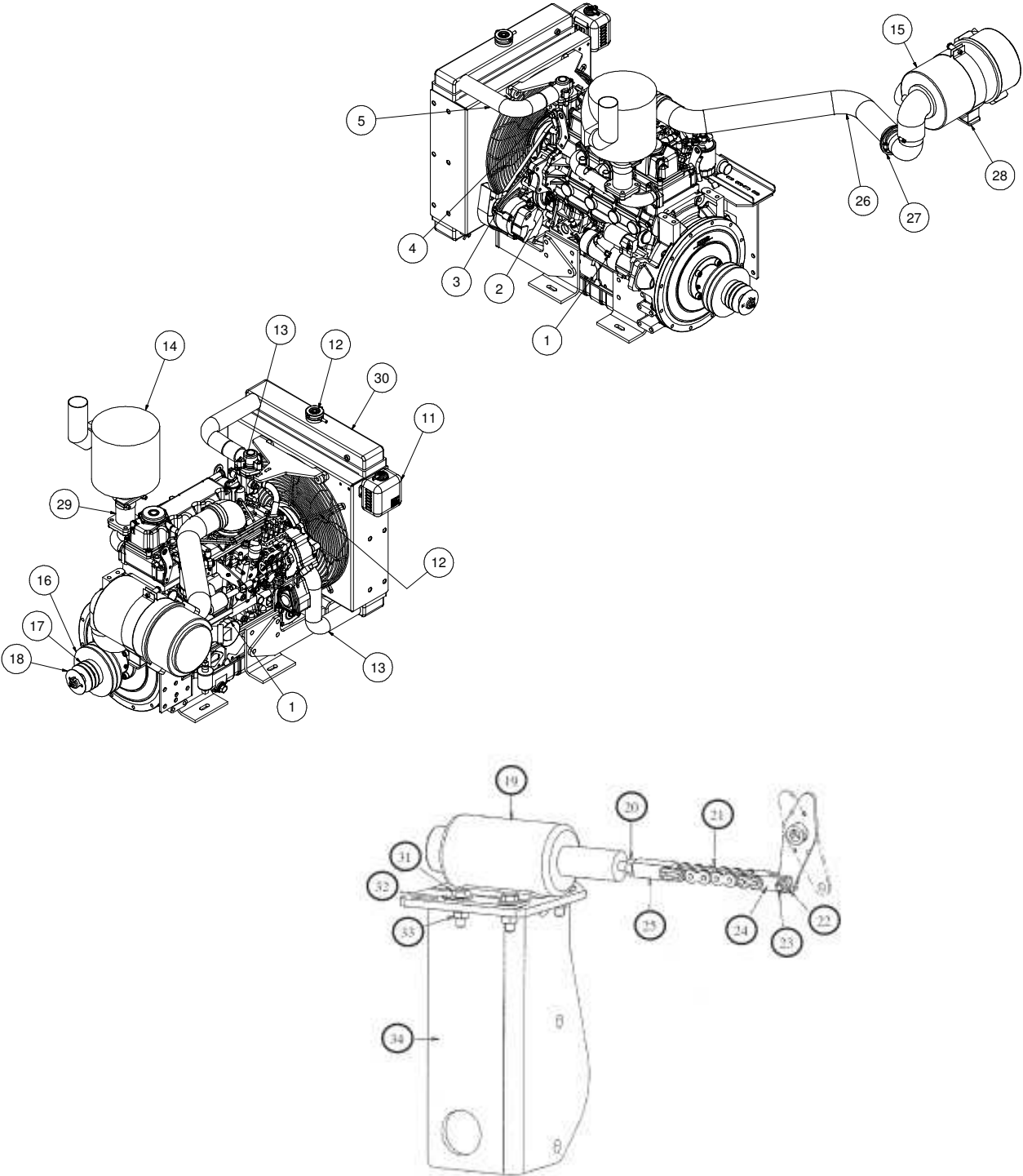
* Not Shown

061014-E

VACASSY01805

Engine Kubota V3600

85HP Boom/ Aux. Hyd.



Engine Kubota V3600

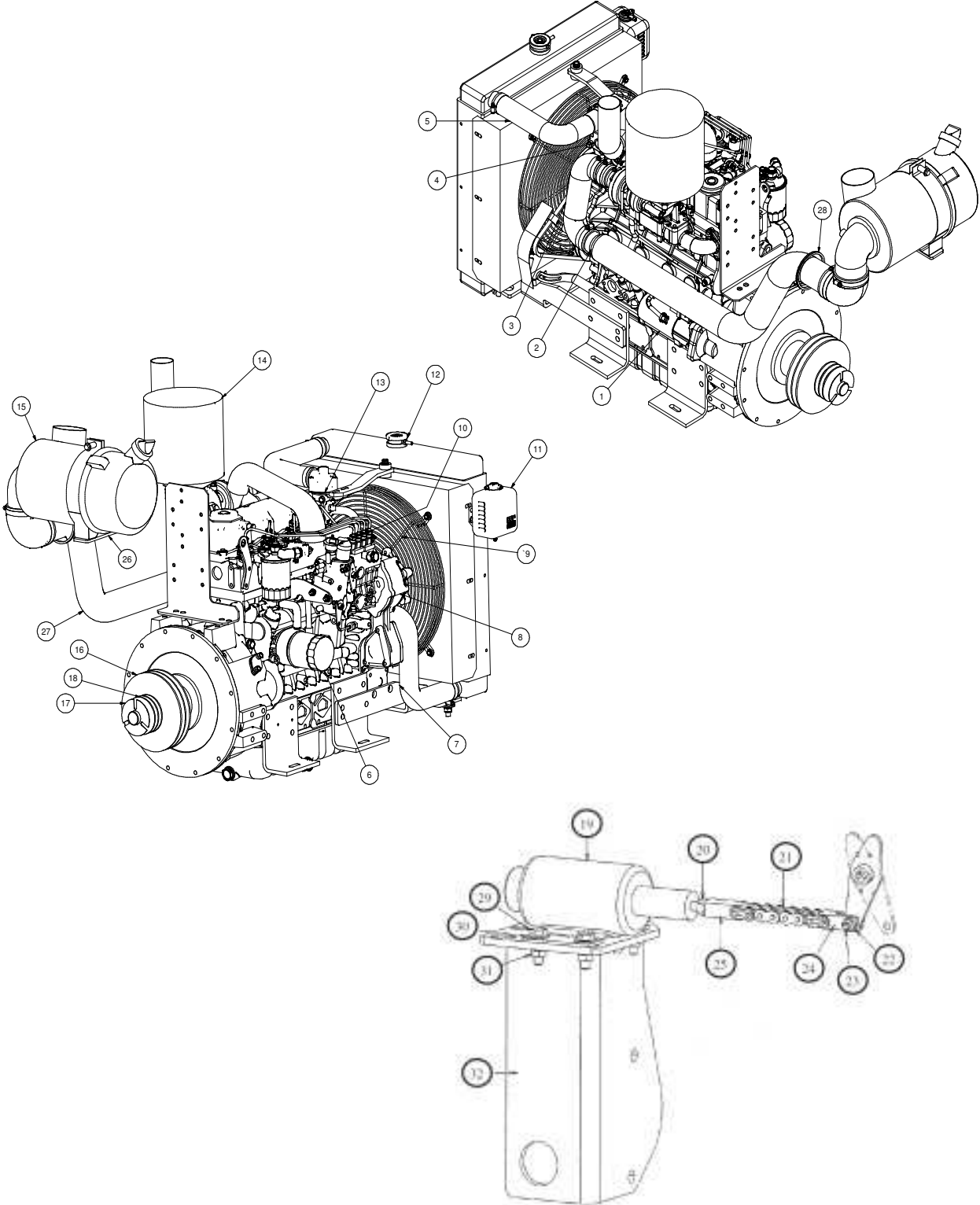
Boom/ Aux. Hyd.

| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|------------|--|
| | 1 | 8091184 | ENGINE |
| 1 | 1 | 8045583 | STARTER |
| 2 | 1 | 8030960 | OIL PRESSURE SWITCH |
| 3 | 1 | 8045584 | FAN BELT |
| 4 | 1 | 8043952 | WATER TEMPERTURE SWITCH |
| 5 | 1 | 8045585 | UPPER RADIATOR HOSE |
| 6 | 1 | 8032002 | OIL FILTER |
| 7 | 1 | 8045586 | LOWER RADIATOR HOSE |
| 8 | 1 | 8045587 | ALTERNATOR |
| 9 | 1 | 8045588 | FAN |
| 10 | 1 | 8045589 | FUEL SHUTOFF SOLENOID |
| 11 | 1 | 8045590 | OVERFLOW TANK |
| | | | OVERFLOW TANK CAP (Sold With Tank) |
| 12 | 1 | 8045591 | RADIATOR CAP |
| 13 | 1 | 8045592 | THERMOSTAT |
| 14 | 1 | 8045593 | MUFFLER |
| 15 | 1 | 8045594 | AIR FILTER HOUSING |
| * | 1 | 8041055 | AIR FILTER ELEMENT (INNER) |
| * | 1 | 8041054 | AIR FILTER ELEMENT (OUTER) |
| 16 | 1 | 8044243 | SHEAVE, BLOWER 8.35" OD 2517 TL |
| | 1 | 8042659 | BUSHING, TL2517 1 7/16" |
| 17 | 1 | 8041799 | KEYWAY RETAINER |
| 18 | 1 | 8040480 | SHEAVE, WATERPUMP 4.15" OD SH 2-GROOVE |
| | 1 | 8040481 | BUSHING, 1 7/16" SH |
| * | 1 | 8041053 | FUEL FILTER |
| * | 1 | 8090999 | FUEL PUMP |
| * | 1 | T400106 | RADIATOR DRAIN FITTING |
| * | 1 | 8047108 | BRACKET, WATER SEPARATOR |
| * | 1 | 8047266 | FUEL / WATER SEPARATOR |
| | 1 | 8047266-01 | FILTER, FUEL / WATER SEPARATOR |
| 19 | 1 | 8046364-33 | THROTTLE SOLENOID |
| 20 | 1 | 8046364-24 | NUT, HEX 5/16"-24 |
| 21 | 1 | 8046364-25 | CHAIN, NICKEL PLATED |
| 22 | 1 | 8046364-32 | NUT, HEX NYLOCK 1/4"-20 |
| 23 | 1 | 8046364-31 | BOLT, HEX 1/4" X .75"LG |
| 24 | 1 | 8046364-30 | CLEVIS, THROTTLE SOLENOID |
| 25 | 1 | 8046364-29 | ROD END, THROTTLE SOLENOID |
| 26 | 1 | 8048485 | AIR CLEANER RELOCATION HOSE |
| 27 | 1 | 8048266 | EDGE GUARD |
| 28 | 1 | 8048024 | MOUNTING PLATE |
| | 4 | U000420 | SCREW,HC 3/8"-16 X 1.00" ZP G5 |
| | 4 | U120110 | NUT, LOCK 3/8-16 NY |
| | 4 | U200060 | WASHER, FLAT 3/8" ZP |
| | 4 | U210060 | WASHER, LOCK 3/8" ZP |
| 29 | 1 | 8047103-15 | EXHAUST PIPE FLANGE |
| 30 | 1 | 8047103-05 | RADIATOR |
| 31 | 4 | 8046364-26 | BOLT, HEX 5/16 X 1.00"LG |
| 32 | 4 | 8046364-27 | WASHER, FLAT 5/16" |
| 33 | 4 | 8046364-28 | NUT, HEX FLANGE SERRATED 5/16 - 18 |
| 34 | 1 | 8046364-34 | THROTTLE SOLENOID BRACKET |
| | | | |
| * | 1 | X300296 | CABLE BATTERY KIT 67-99HP WITH NO ELECT. HYD. PUMP |
| * | 1 | 8090994 | KIT, FUEL PUMP |

* Not Shown

Engine Kubota V3800T

99HP-XT



041414-E

VACASSY861

Engine Kubota V3800T

99HP-XT

| ITEM | QTY | NUMBER | DESCRIPTION |
|--------------------------|-----|------------|---|
| | 1 | 8045154 | ENG, KUBOTA 99HP (Short SAE4 HSG) |
| 1 | 1 | 8046034 | STARTER |
| 2 | 1 | 8030960 | OIL PRESSURE SWITCH |
| 3 | 1 | 8046035 | FAN BELT |
| 4 | 1 | 8043952 | WATER TEMPERTURE SWITCH |
| 5 | 1 | 8045585 | UPPER RADIATOR HOSE |
| 6 | 1 | 8032002 | OIL FILTER |
| 7 | 1 | 8045586 | LOWER RADIATOR HOSE |
| 8 | 1 | 8046036 | ALTERNATOR |
| 9 | 1 | 8045588 | FAN |
| 10 | 1 | 8045589 | FUEL SHUTOFF SOLENOID |
| 11 | 1 | 8045590 | OVERFLOW TANK |
| | | | OVERFLOW TANK CAP (Sold With Tank) |
| 12 | 1 | 8045591 | RADIATOR CAP |
| 13 | 1 | 8045592 | THERMOSTAT |
| 14 | 1 | 8044485 | MUFFLER |
| 15 | 1 | 8045594 | AIR FILTER HOUSING |
| * | 1 | 8041055 | AIR FILTER ELEMENT (INNER) |
| * | 1 | 8041054 | AIR FILTER ELEMENT (OUTER) |
| 16 | 1 | 8040482 | SHEAVE, BLOWER 8.35"OD SK 2 GROOVE |
| | 1 | 8040483 | BUSHING, 1 7/16" |
| 17 | 1 | 8041799 | KEYWAY RETAINER |
| 18 | 1 | 8044244 | SHEAVE, WATERPUMP 3.95" OD QT 2-GROOVE |
| | 1 | 8044245 | BUSHING, 1 7/16" QT |
| * | 1 | 8041053 | FUEL FILTER |
| * | 1 | 8090999 | FUEL PUMP |
| * | 1 | T400106 | RADIATOR DRAIN FITTING |
| * | 1 | 8047370 | BRACKET, WATER SEPARATOR |
| * | 1 | 8047266 | FUEL / WATER SEPARATOR |
| | 1 | 8047266-01 | FILTER, FUEL / WATER SEPARATOR |
| 19 | 1 | 8046364-33 | THROTTLE SOLENOID |
| 20 | 1 | 8046364-24 | NUT, HEX 5/16"-24 |
| 21 | 1 | 8046364-25 | CHAIN, NICKEL PLATED |
| 22 | 1 | 8046364-32 | NUT, HEX NYLOCK 1/4"-20 |
| 23 | 1 | 8046364-31 | BOLT, HEX 1/4" X .75"LG |
| 24 | 1 | 8046364-30 | CLEVIS, THROTTLE SOLENOID |
| 25 | 1 | 8046364-29 | ROD END, THROTTLE SOLENOID |
| 26 | 1 | 8048024 | AIR CLEANER RELOCATION MOUNTING PLATE |
| | 4 | U000420 | SCREW, HC .375-16 X 1.00 ZP G5 |
| | 4 | U120110 | NUT, LOCK 3/8-16NY |
| | 4 | U200060 | WASHER, FLAT .375 ZP |
| | 4 | U210060 | WASHER, LOCK .375 ZP |
| 27 | 1 | 8048486 | AIR CLEANER INTAKE 99HP |
| 28 | 1 | 8048266 | EDGE GUARD, 67/99HP RELOCATION |
| 29 | 4 | 8046364-26 | BOLT, HEX 5/16 X 1.00"LG |
| 30 | 4 | 8046364-27 | WASHER, FLAT 5/16" |
| 31 | 4 | 8046364-28 | NUT, HEX FLANGE SERRATED 5/16 - 18 |
| 32 | 1 | 8046364-34 | THROTTLE SOLENOID BRACKET |
| * | 1 | X300299 | CABLE BATTERY KIT 67-99HP WITH ELECT. HYD. PUMP |
| * | 1 | 8090994 | KIT, FUEL PUMP |
| OPTION FOR JETTER | | | |
| * | 1 | 8046698 | GREASE BOLT SPACER |
| * | 1 | 8046699 | GREASE BOLT |

* Not Shown

Engine Kubota V3800T

99HP-XT Boom/ Aux. Hyd.

| ITEM | QTY | NUMBER | DESCRIPTION |
|--------------------------|-----|------------|--|
| | 1 | 8045154 | ENG, KUBOTA 99HP (Short SAE4 HSG) |
| 1 | 1 | 8046034 | STARTER |
| 2 | 1 | 8030960 | OIL PRESSURE SWITCH |
| 3 | 1 | 8046035 | FAN BELT |
| 4 | 1 | 8043952 | WATER TEMPERTURE SWITCH |
| 5 | 1 | 8045585 | UPPER RADIATOR HOSE |
| 6 | 1 | 8032002 | OIL FILTER |
| 7 | 1 | 8045586 | LOWER RADIATOR HOSE |
| 8 | 1 | 8046036 | ALTERNATOR |
| 9 | 1 | 8045588 | FAN |
| 10 | 1 | 8045589 | FUEL SHUTOFF SOLENOID |
| 11 | 1 | 8045590 | OVERFLOW TANK |
| | | | OVERFLOW TANK CAP (Sold With Tank) |
| 12 | 1 | 8045591 | RADIATOR CAP |
| 13 | 1 | 8045592 | THERMOSTAT |
| 14 | 1 | 8044485 | MUFFLER |
| 15 | 1 | 8045594 | AIR FILTER HOUSING |
| * | 1 | 8041055 | AIR FILTER ELEMENT (INNER) |
| * | 1 | 8041054 | AIR FILTER ELEMENT (OUTER) |
| 16 | 1 | 8040482 | SHEAVE, BLOWER 8.35"OD 2517 TL |
| | 1 | 8040483 | BUSHING, TL2517 1 7/16" |
| 17 | 1 | 8041799 | KEYWAY RETAINER |
| 18 | 1 | 8044244 | SHEAVE, WATERPUMP 3.95" OD QT 2-GROOVE |
| | 1 | 8044245 | BUSHING, 1 7/16" QT |
| * | 1 | 8041053 | FUEL FILTER |
| * | 1 | 8090999 | FUEL PUMP |
| * | 1 | T400106 | RADIATOR DRAIN FITTING |
| * | 1 | 8047370 | BRACKET, WATER SEPARATOR |
| * | 1 | 8047266 | FUEL / WATER SEPARATOR |
| | 1 | 8047266-01 | FILTER, FUEL / WATER SEPARATOR |
| 19 | 1 | 8046364-33 | THROTTLE SOLENOID |
| 20 | 1 | 8046364-24 | NUT, HEX 5/16"-24 |
| 21 | 1 | 8046364-25 | CHAIN, NICKEL PLATED |
| 22 | 1 | 8046364-32 | NUT, HEX NYLOCK 1/4"-20 |
| 23 | 1 | 8046364-31 | BOLT, HEX 1/4" X .75"LG |
| 24 | 1 | 8046364-30 | CLEVIS, THROTTLE SOLENOID |
| 25 | 1 | 8046364-29 | ROD END, THROTTLE SOLENOID |
| 26 | 1 | 8048024 | AIR CLEANER RELOCATION MOUNTING PLATE |
| | 4 | U000420 | SCREW, HC .375-16 X 1.00 ZP G5 |
| | 4 | U120110 | NUT, LOCK 3/8-16NY |
| | 4 | U200060 | WASHER, FLAT .375 ZP |
| | 4 | U210060 | WASHER, LOCK .375 ZP |
| 27 | 1 | 8048486 | AIR CLEANER INTAKE 99HP |
| 28 | 1 | 8048266 | EDGE GUARD, 67/99HP RELOCATION |
| 29 | 4 | 8046364-26 | BOLT, HEX 5/16 X 1.00"LG |
| 30 | 4 | 8046364-27 | WASHER, FLAT 5/16" |
| 31 | 4 | 8046364-28 | NUT, HEX FLANGE SERRATED 5/16 - 18 |
| 32 | 1 | 8046364-34 | THROTTLE SOLENOID BRACKET |
| * | 1 | X300296 | CABLE BATTERY KIT 67-99HP WITH NO ELECT. HYD. PUMP |
| * | 1 | 8090994 | KIT, FUEL PUMP |
| OPTION FOR JETTER | | | |
| * | 1 | 8046698 | GREASE BOLT SPACER |
| * | 1 | 8046699 | GREASE BOLT |

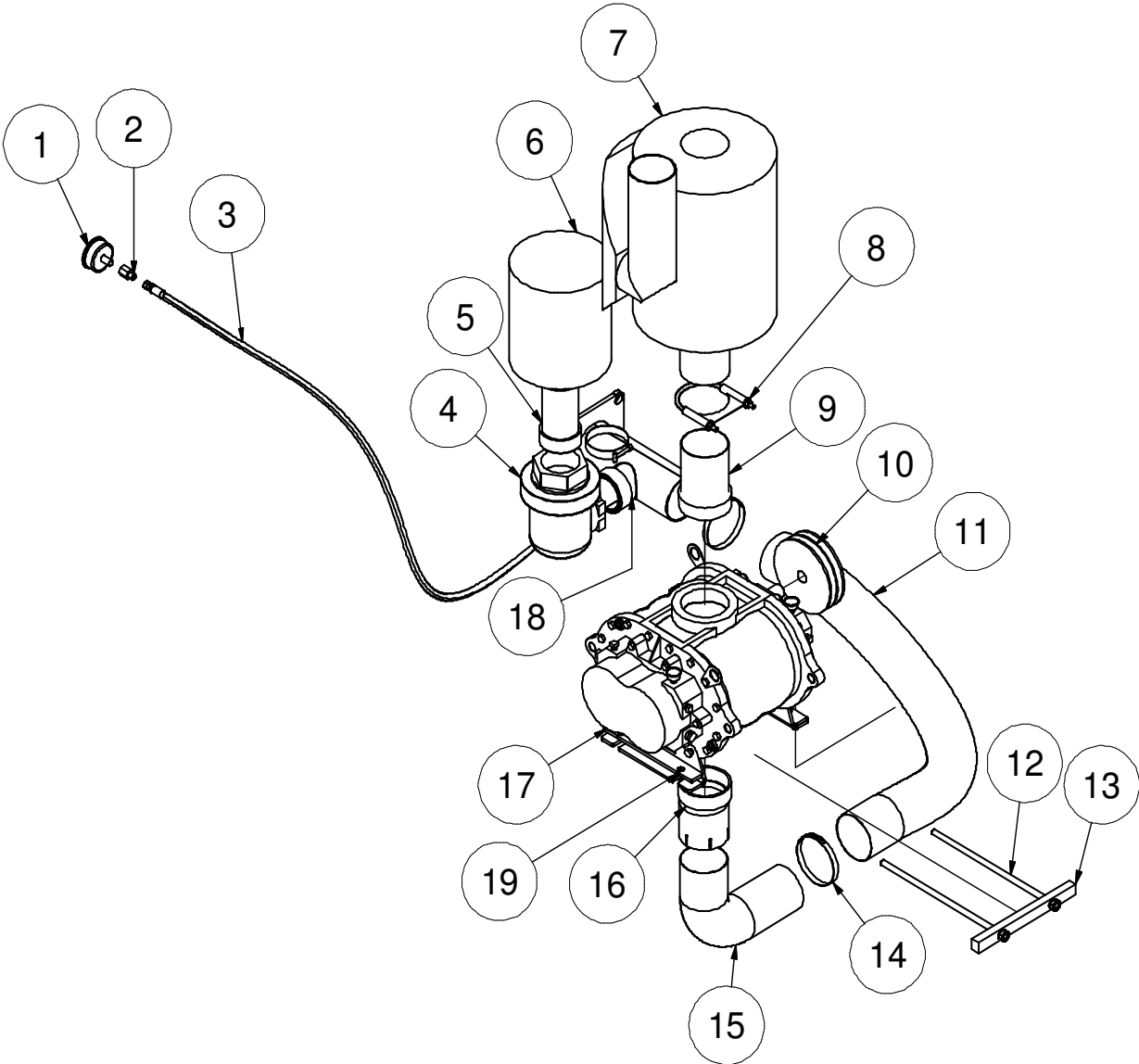
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041414-E

VACASSY01803

Blower Assembly

67HD



041214-E

VACASSY01204

Blower Assembly

67HD

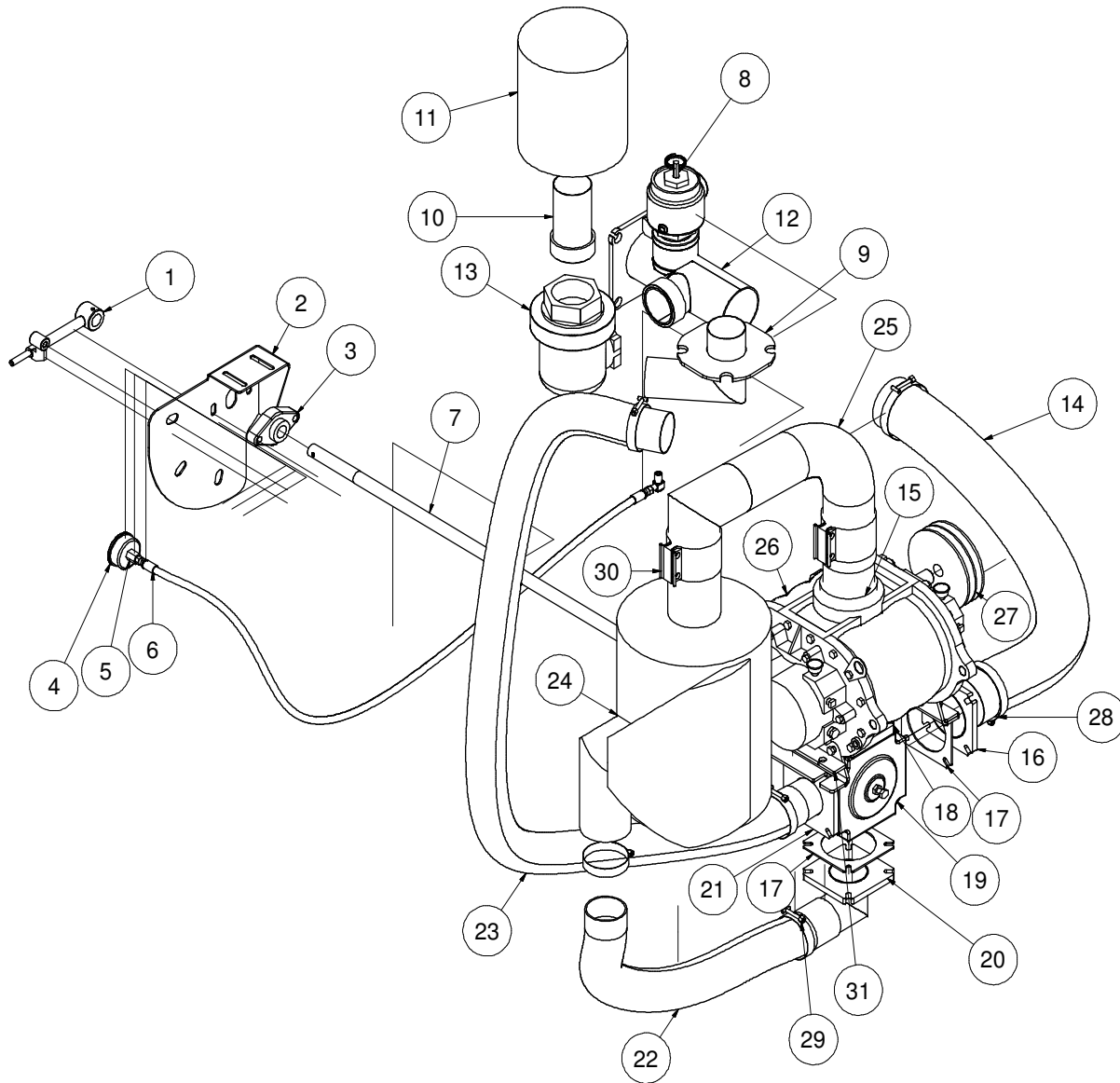
| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|---------|---|
| 1 | 1 | 8041074 | GAUGE COMPOUND PRESSURE/VACUUM |
| 2 | 1 | T400110 | UNION, 4FP - 4MJ |
| 3 | 1 | 8042355 | HOSE ASSY VAC 4-60" ST-ST |
| 4 | 1 | 8030866 | VALVE,3" AIR RELIEF SET 15"HG (STANDARD) |
| | 1 | 8090438 | VALVE,3" AIR RELIEF SET 13"HG (HIGH ALTITUDE) |
| 5 | 1 | 8045238 | UNION EXHAUST 3" OD-MNPT |
| 6 | 1 | 8043553 | AIR FILTER 3" 245CFM |
| 7 | 1 | 8030917 | SILENCER, 1025CFM, COWL |
| 8 | 1 | 8031193 | CLAMP, 4in U-BOLT EXHAUST |
| 9 | 1 | 8045239 | UNION EXHAUST 4" OD - MNPT |
| 10 | 1 | 8040697 | SHEAVE, 6.55DIA 2 - GROOVE |
| | 1 | 8040485 | BUSHING, 1 1/8" SDS |
| | 1 | U410090 | KEY, 1/4" X 1/4" X 2 3/4" |
| | 2 | 8049162 | BELT, BP57 |
| 11 | 1 | 8046575 | HOSE VAC AG SUCTION 4-51" |
| 12 | 2 | 8041507 | ROD TIGHTENER WELDMENT |
| 13 | 1 | 8040904 | TENSION BLOCK 1025 CFM |
| 14 | 2 | 8042606 | CLAMP T-BOLT 4" (450) |
| 15 | 1 | 8041814 | ELBOW, 4" (4.5" RAD, OD-OD) |
| 16 | 1 | 8046820 | ADAPTER 4"MNPT - 4"ID |
| 17 | 1 | 8040001 | BLOWER (MODEL 59) |
| | 4 | U000817 | SCREW, HC 1/2" - 13 X 1" |
| | 4 | U210100 | WASHER, LOCK 1/2" |
| | 4 | U200100 | WASHER, FLAT 1/2" |
| 18 | 1 | 8046415 | HEADER, AIR FILTER 1025 |
| | 1 | 8046191 | GASKET, HEADER AIR FILTER |
| 19 | 2 | 8045252 | BLOWER BOLT PLATE |

041214-E

VACASSY01204

Blower Assembly

67/99HP 1025CFM



090815-E

VACASSY240

Blower Assembly

67/99HP 1025CFM

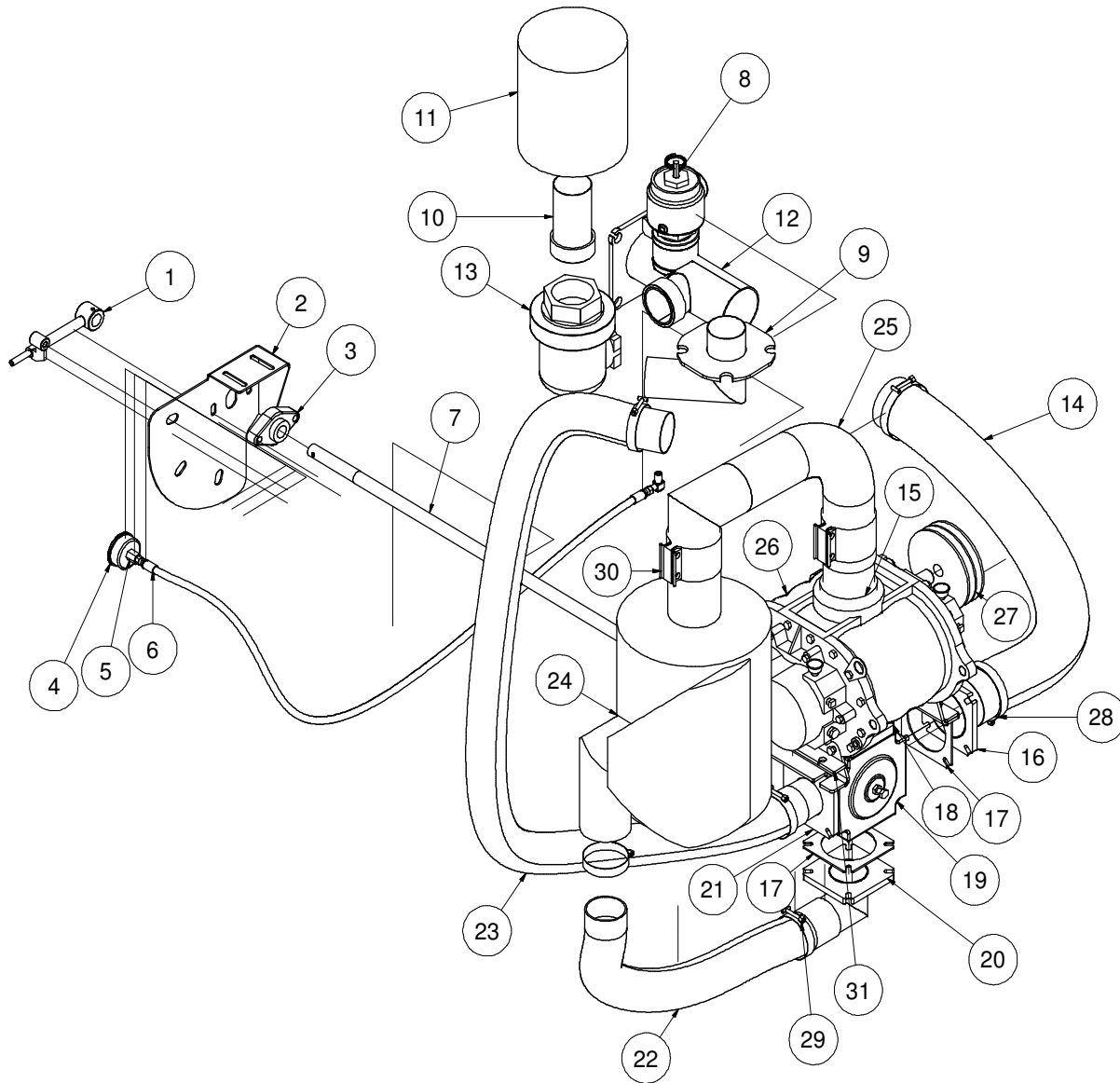
| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|----------------|--|
| 1 | 1 | 8041617 | REVERSE FLOW HANDLE, TRAILER UNIT |
| | 1 | 8041177-10 | HANDLE GRIP |
| | 1 | 8041595 | PIN, SPRING REV FLOW HANDLE |
| 2 | 1 | 8046202 | BRACKET REV FLOW CONTROL LE |
| | 3 | 8048585 | GROMMET, .884/.878 X .266 X .234 |
| 3 | 1 | W030080 | FLANGE BEARING - 2 BOLT (1" BORE) |
| 4 | 1 | 8041074 | GAUGE COMPOUND PRESSURE/VACUUM |
| 5 | 1 | T400110 | UNION 4FP-4MJ |
| 6 | 1 | 8045869 | HOSE ASSY VAC 4-34" ST-ST |
| 7 | 1 | 8048342 | REV FLOW UNIVERSAL JOINT RD SHAFT 49LE |
| 8 | 1 | 8041035 | PRESSURE RELIEF 1025 |
| 9 | 1 | 8046218 | EXHAUST REV FLOW PIPE WELDMENT |
| 10 | 1 | 8045238 | UNION EXHAUST 3" OD-MNPT |
| 11 | 1 | 8043553 | AIR FILTER 3" 245 CFM |
| 12 | 1 | 8048126 | 4" HEADER AIR FILTER HDRF |
| | 1 | 8048127 | HEADER, 4" AIR FILTER V2000/V2200 |
| | 1 | 8048128 | HEADER, 4" AIR FILTER V2600/V3000 |
| | 1 | 8046191 | GASKET, HEADER |
| 13 | 1 | 8030866 | VALVE, 3" AIR RELIEF SET 15"HG (STANDARD) |
| | 1 | 8090438 | VALVE, 3" AIR RELIEF SET 13"HG (HIGH ALTITUDE) |
| 14 | 1 | 8046575 | HOSE VAC AG SUCTION 4 - 51" |
| 15 | 1 | 8030560 | 4" HOSE COUPLING WELDMENT |
| 16 | 1 | 8046484 | EXHAUST REV FLOW 4" X 4" FLANGE WELDMENT |
| 17 | 4 | 8043554 | ADAPTER VALVE FLANGE |
| 18 | 1 | 8044330 | REV FLOW 4" HEADER NIP ASSY |
| 19 | 1 | 8041177 | 4" 4-WAY VALVE |
| 20 | 1 | 8046201 | ELBOW EXHAUST 3" W/ 4" FLANGE |
| 21 | 1 | 8046222 | EXHAUST REV FLOW 3" X 4" FLANGE WELDMENT |
| 22 | 1 | 8092928-029.00 | HOSE VAC AG SUCTION 3 - 29" |
| 23 | 1 | 8092928-065.00 | HOSE VAC AG SUCTION 3 - 65" |
| 24 | 1 | 8030917 | SILENCER, 1025 CFM, COWL |
| 25 | 1 | 8046505 | EXHAUST 4" ID-OD W/COUPLING WELDMENT |
| 26 | 1 | 8040001 | BLOWER (MODEL 59) |
| 27 | 1 | 8044515 | SHEAVE 7.75" OD SDS 2-GROOVE |
| | 1 | 8044516 | BUSHING 1 1/8" SD |
| | 2 | 8049162 | BELTS, BP57 |
| | 1 | 8041798 | RETAINER |
| 28 | 2 | 8042606 | CLAMP HOSE T-BOLT 450 |
| 29 | 4 | 8042605 | CLAMP HOSE T-BOLT 350 |
| 30 | 2 | 8030400 | 4" BAND CLAMP |

092815-E

VACASSY240

Blower Assembly

67/99HP 1025CFM JETTER



090815-E

VACASSY01203

Blower Assembly

67/99HP 1025CFM JETTER

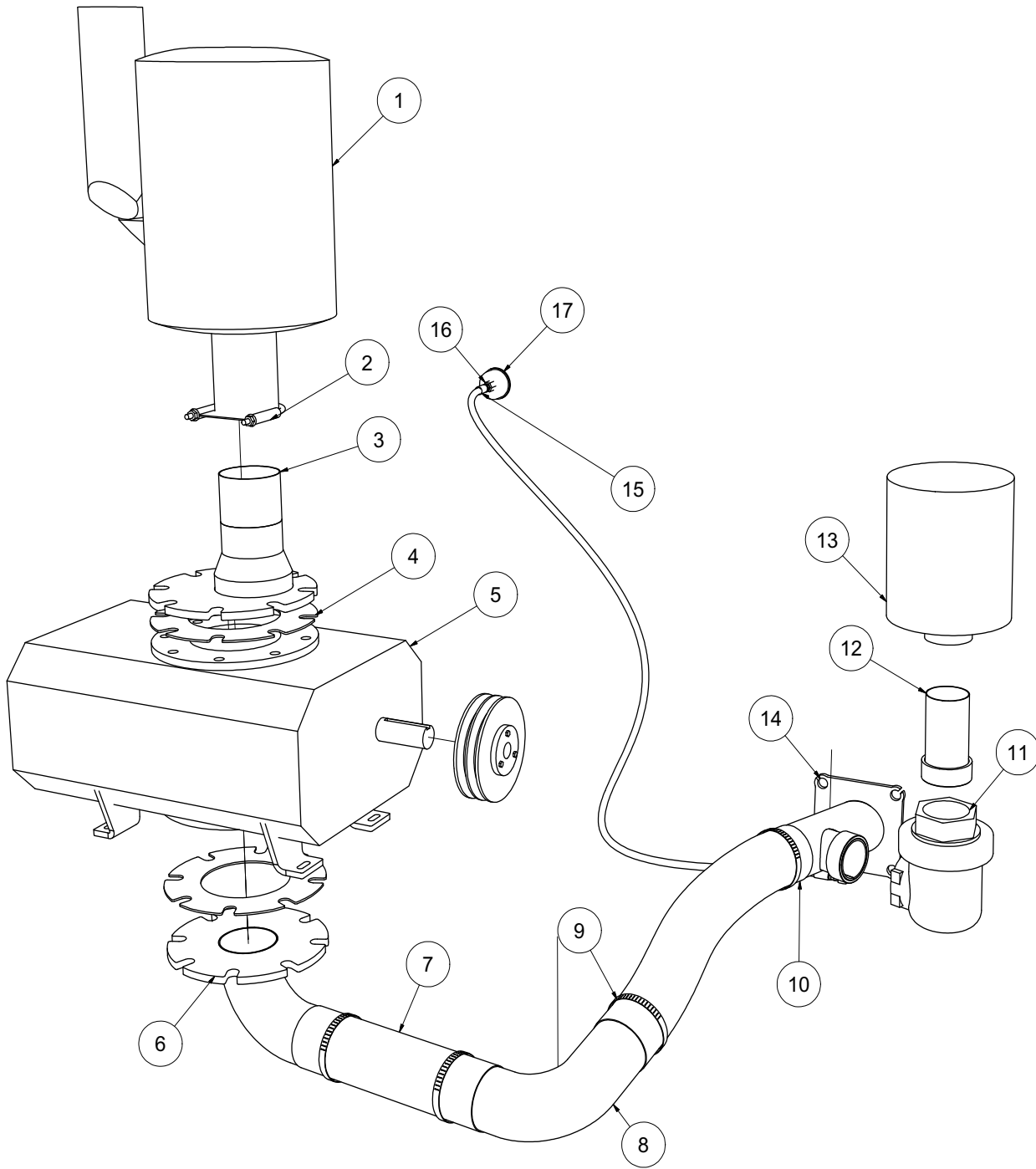
| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|----------------|--|
| 1 | 1 | 8041617 | REVERSE FLOW HANDLE, TRAILER UNIT |
| | 1 | 8041177-10 | HANDLE GRIP |
| | 1 | 8041595 | PIN, SPRING REV FLOW HANDLE |
| 2 | 1 | 8046202 | BRACKET REV FLOW CONTROL LE |
| | 3 | 8048585 | GROMMET, .884/.878 X .266 X .234 |
| 3 | 1 | W030080 | FLANGE BEARING - 2 BOLT (1" BORE) |
| 4 | 1 | 8041074 | GAUGE COMPOUND PRESSURE/VACUUM |
| 5 | 1 | T400110 | UNION 4FP-4MJ |
| 6 | 1 | 8045869 | HOSE ASSY VAC 4-34" ST-ST |
| 7 | 1 | 8048342 | REV FLOW UNIVERSAL JOINT RD SHAFT 49LE |
| 8 | 1 | 8041035 | PRESSURE RELIEF 1025 |
| 9 | 1 | 8046218 | EXHAUST REV FLOW PIPE WELDMENT |
| 10 | 1 | 8045238 | UNION EXHAUST 3" OD-MNPT |
| 11 | 1 | 8043553 | AIR FILTER 3" 245 CFM |
| 12 | 1 | 8048126 | 4" HEADER AIR FILTER HDRF |
| | 1 | 8048127 | HEADER, 4" AIR FILTER V2000/V2200 |
| | 1 | 8048128 | HEADER, 4" AIR FILTER V2600/V3000 |
| | 1 | 8046191 | GASKET, HEADER |
| 13 | 1 | 8030866 | VALVE, 3" AIR RELIEF SET 15"HG (STANDARD) |
| | 1 | 8090438 | VALVE, 3" AIR RELIEF SET 13"HG (HIGH ALTITUDE) |
| 14 | 1 | 8046575 | HOSE VAC AG SUCTION 4 - 51" |
| 15 | 1 | 8030560 | 4" HOSE COUPLING WELDMENT |
| 16 | 1 | 8046484 | EXHAUST REV FLOW 4" X 4" FLANGE WELDMENT |
| 17 | 4 | 8043554 | ADAPTER VALVE FLANGE |
| 18 | 1 | 8044330 | REV FLOW 4" HEADER NIP ASSY |
| 19 | 1 | 8041177 | 4" 4-WAY VALVE |
| 20 | 1 | 8046201 | ELBOW EXHAUST 3" W/ 4" FLANGE |
| 21 | 1 | 8046222 | EXHAUST REV FLOW 3" X 4" FLANGE WELDMENT |
| 22 | 1 | 8092928-029.00 | HOSE VAC AG SUCTION 3 - 29" |
| 23 | 1 | 8092928-065.00 | HOSE VAC AG SUCTION 3 - 65" |
| 24 | 1 | 8030917 | SILENCER, 1025 CFM, COWL |
| 25 | 1 | 8046505 | EXHAUST 4" ID-OD W/COUPLING WELDMENT |
| 26 | 1 | 8040001 | BLOWER (MODEL 59) |
| 27 | 1 | 8040703 | SHEAVE 6.15" OD SDS 2-GROOVE |
| | 1 | 8040485 | BUSHING 1 1/8" SDS |
| | 2 | 8049160 | BELTS, BP52 |
| | 1 | 8041798 | RETAINER |
| 28 | 2 | 8042606 | CLAMP HOSE T-BOLT 450 |
| 29 | 4 | 8042605 | CLAMP HOSE T-BOLT 350 |
| 30 | 2 | 8030400 | 4" BAND CLAMP |

090815-E

VACASSY01203

Blower Assembly

XT



041214-E

VACASSY239

Blower Assembly

XT

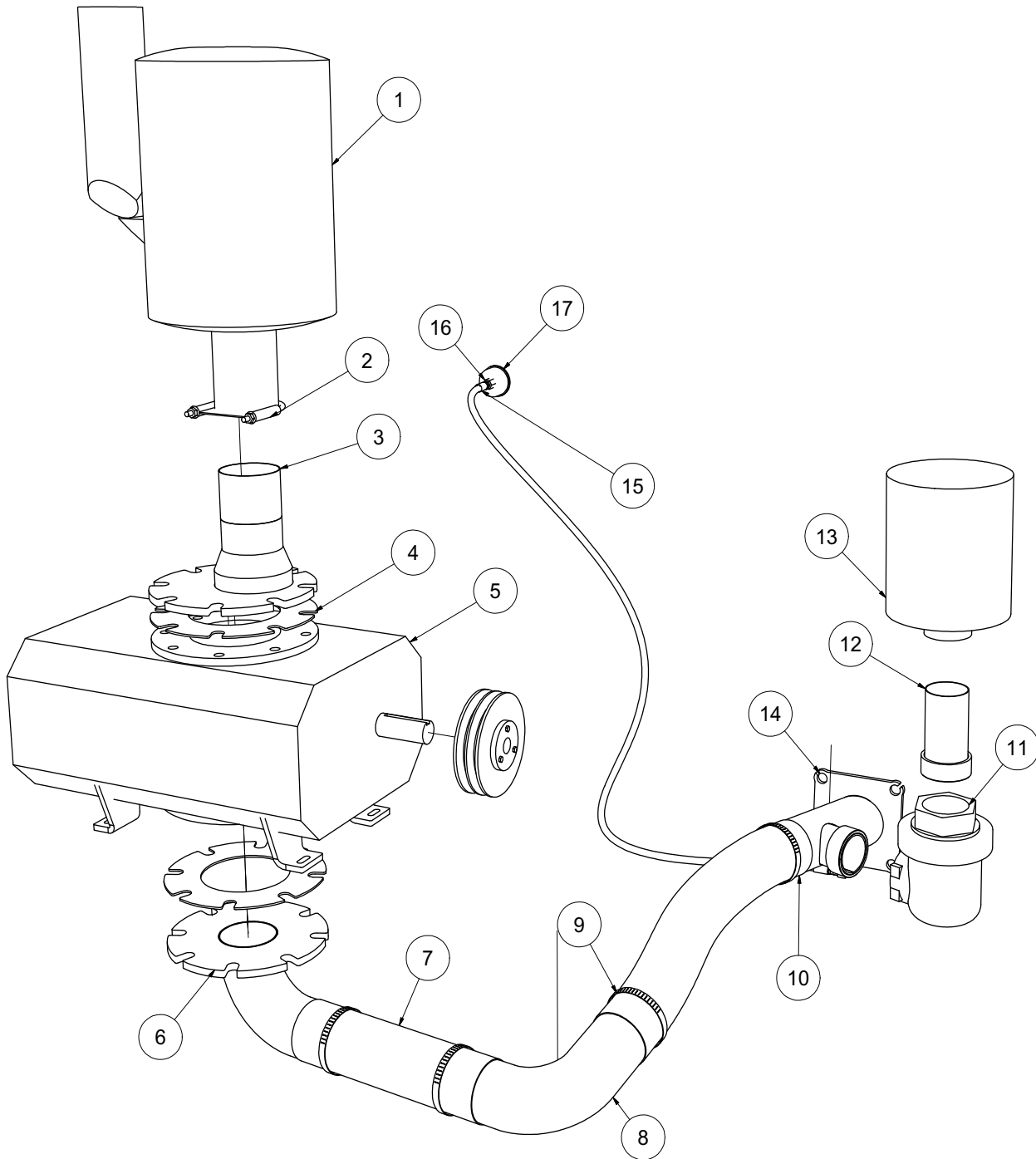
| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|---------|---|
| 1 | 1 | 8030917 | SILENCER, 1025CFM, COWL |
| 2 | 1 | 8031193 | CLAMP, 4" U-BOLT EXHAUST |
| 3 | 1 | 8047063 | EXHAUST 1200CFM BLOWER TOP |
| 4 | 2 | 8046996 | GASKET, BLOWER FLANGE ROOTS 412 |
| 5 | 1 | 8045164 | 412 BLOWER |
| | 1 | 8045310 | SHEAVE, 6.35"OD SD 3-GROOVE |
| | 1 | 8045305 | BUSHING, 1 1/2" SD |
| | 2 | 8049066 | BELT, BP55 GP |
| | 2 | 8041507 | TENSION ROD |
| | 1 | 8047006 | TENSION BLOCK |
| 6 | 1 | 8047059 | BLOWER FLANGE / ELBOW WELDMENT |
| 7 | 1 | 8047065 | HOSE VAC AG SUCTION 4-10" |
| 8 | 1 | 8041814 | ELBOW, 90 4" (4" RAD, OD-OD) |
| 9 | 4 | 8042606 | CLAMP, T-BOLT 4" (350) |
| 10 | 1 | 8044511 | HOSE VAC AG SUCTION 4-36" |
| 11 | 1 | 8030866 | VALVE,3" AIR RELIEF SET 15"HG (STANDARD) |
| | 1 | 8090438 | VALVE,3" AIR RELIEF SET 13"HG (HIGH ALTITUDE) |
| 12 | 1 | 8045238 | UNION EXHAUST 3" OD - MNPT |
| 13 | 1 | 8043553 | AIR FILTER, 3" 245CFM |
| 14 | 1 | 8046415 | HEADER AIR FILTER HDRF |
| | 1 | 8046191 | HEADER GASKET |
| 15 | 1 | 8045869 | HOSE ASSY VAC 4 - 34" ST-ST |
| 16 | 1 | T400110 | UNION, 4FP - 4MJ |
| 17 | 1 | 8041074 | GAUGE COMPOUND PRESSURE / VACUUM |

041214-E

VACASSY239

Blower Assembly

XT (JETTER)



041214-E

VACASSY01201

Blower Assembly

**XT
(JETTER)**

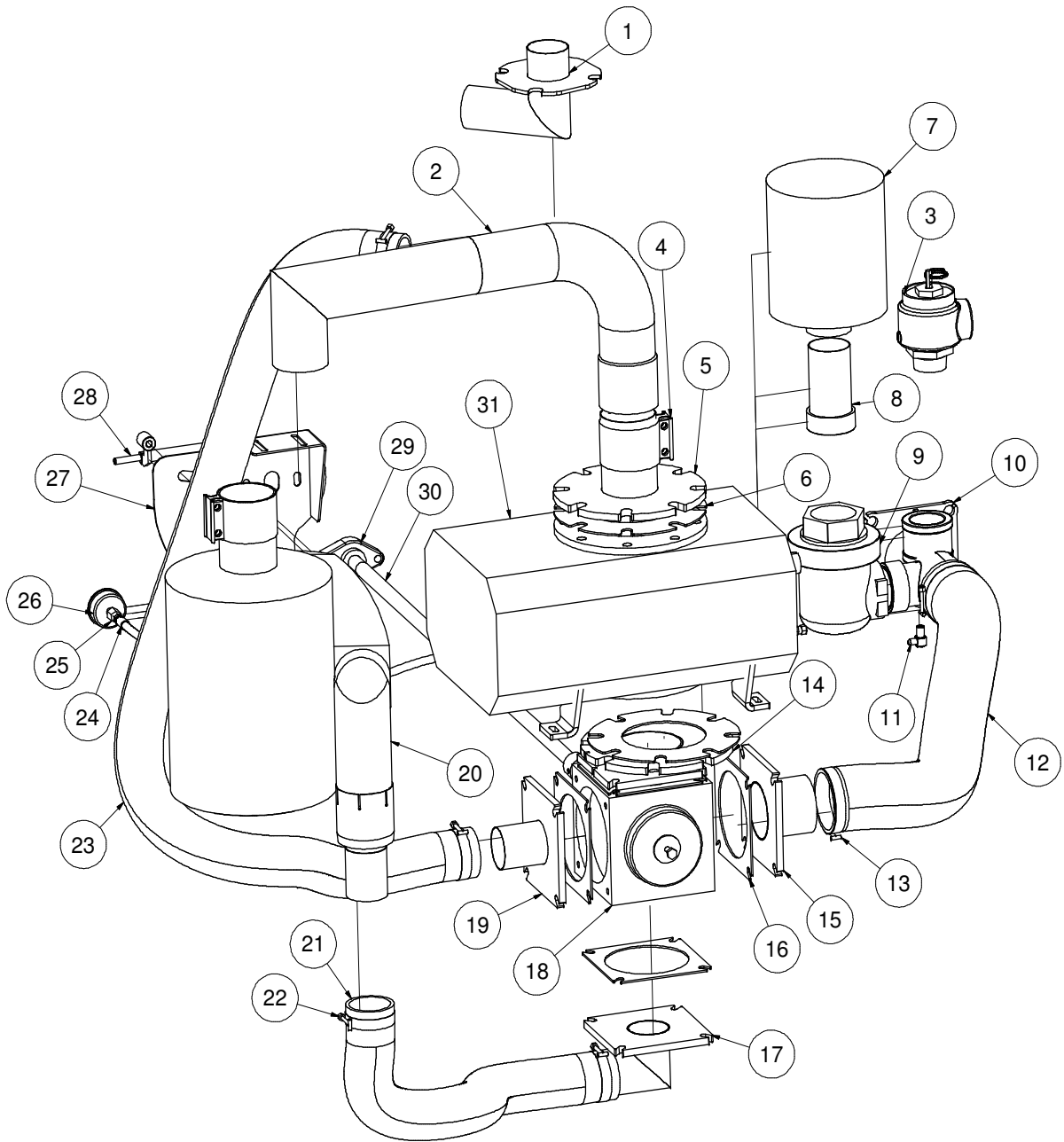
| ITEM | QTY | NUMBER | DESCRIPTION |
|-------------|------------|---------------|--|
| 1 | 1 | 8030917 | SILENCER, 1025CFM, COWL |
| 2 | 1 | 8031193 | CLAMP, 4" U-BOLT EXHAUST |
| 3 | 1 | 8047063 | EXHAUST 1200CFM BLOWER TOP |
| 4 | 2 | 8046996 | GASKET, BLOWER FLANGE ROOTS 412 |
| 5 | 1 | 8045164 | 412 BLOWER |
| | 1 | 8045310 | SHEAVE, 6.35"OD SD 3-GROOVE |
| | 1 | 8045305 | BUSHING, 1 1/2" SD |
| | 2 | 8049070 | BELT, BP51 GP (JETTER UNIT ONLY) |
| | 2 | 8041507 | TENSION ROD |
| | 1 | 8047006 | TENSION BLOCK |
| 6 | 1 | 8047059 | BLOWER FLANGE / ELBOW WELDMENT |
| 7 | 1 | 8047065 | HOSE VAC AG SUCTION 4-10" |
| 8 | 1 | 8041814 | ELBOW, 90 4" (4" RAD, OD-OD) |
| 9 | 4 | 8042606 | CLAMP, T-BOLT 4" (350) |
| 10 | 1 | 8044511 | HOSE VAC AG SUCTION 4-36" |
| 11 | 1 | 8030866 | VALVE, 3" AIR RELIEF SET 15"HG (STANDARD) |
| | 1 | 8090438 | VALVE, 3" AIR RELIEF SET 13"HG (HIGH ALTITUDE) |
| 12 | 1 | 8045238 | UNION EXHAUST 3" OD - MNPT |
| 13 | 1 | 8043553 | AIR FILTER, 3" 245CFM |
| 14 | 1 | 8046415 | HEADER AIR FILTER HDRF |
| | 1 | 8046191 | HEADER GASKET |
| 15 | 1 | 8045869 | HOSE ASSY VAC 4 - 34" ST-ST |
| 16 | 1 | T400110 | UNION, 4FP - 4MJ |
| 17 | 1 | 8041074 | GAUGE COMPOUND PRESSURE / VACUUM |

041214-E

VACASSY01201

Blower Assembly

XTRF



041214-E

VACASSY236

Blower Assembly

XTRF

| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|---------|--|
| 1 | 1 | 8046218 | EXHAUST REV FLOW PIPE WELDMENT |
| 2 | 1 | 8046986 | EXHAUST 4" ID-OD W/ COUPLING WELDMENT |
| 3 | 1 | 8041305 | PRESSURE RELIEF 1025 |
| 4 | 2 | 8030400 | 4" BAND CLAMP |
| 5 | 1 | 8046988 | BLOWER OUTLET ROOTS 412 |
| 6 | 2 | 8046996 | GASKET, BLOWER FLANGE ROOTS 412 |
| 7 | 1 | 8043553 | AIR FILTER, 3" 245CFM |
| 8 | 1 | 8045238 | UNION EXHAUST 3" OD-MNPT |
| 9 | 1 | 8030866 | VALVE, 3" AIR RELIEF SET 15"HG (STANDARD) |
| | 1 | 8090438 | VALVE, 3" AIR RELIEF SET 13"HG (HIGH ALTITUDE) |
| 10 | 1 | 8048126 | 4" HEADER AIR FILTER HDRF |
| | 1 | 8048127 | HEADER, 4" AIR FILTER V2000/V2200 |
| | 1 | 8048128 | HEADER, 4" AIR FILTER V2600/3000 |
| | 1 | 8046191 | GASKET, HEADER |
| 11 | 1 | T401100 | ELBOW, 4MP - 4MJ 90 |
| 12 | 1 | 8046575 | HOSE VAC AG SUCTION 4-51" |
| 13 | 2 | 8042606 | CLAMP, T-BOLT 4" (350) |
| 14 | 1 | 8048089 | BRACKET REV FLOW BLOWER TO 4-WAY VALVE |
| 15 | 1 | 8046984 | FLANGE EXHAUST 4-WAY 6" X 4" TUBE |
| 16 | 4 | 8046995 | GASKET, FLANGE 4-WAY VALVE 6" |
| 17 | 1 | 8046981 | ELBOW EXHAUST 90 3" W/ FLANGE |
| 18 | 1 | 8045829 | VALVE, 4-WAY 6" |
| 19 | 1 | 8046985 | FLANGE EXHAUST 4-WAY 6" X 3" TUBE |
| 20 | 1 | 8030917 | SILENCER, 1025CFM, COWL |
| 21 | 1 | 8046576 | HOSE VAC AG SUCTION 3-65" |
| 22 | 2 | 8042605 | CLAMP T-BOLT 3" (350) |
| 23 | 1 | 8046577 | HOSE VAC AG SUCTION 4-34" |
| 24 | 1 | 8045869 | HOSE ASSY VAC 4-34" ST-ST |
| 25 | 1 | 8030483 | UNION, 4FP - 4MJ |
| 26 | 1 | 8041074 | GAUGE, VACUUM COMPOUND PRESSURE |
| 27 | 1 | 8046202 | BRACKET, REV FLOW CONTROL LE |
| | 3 | 8048585 | GROMMET, .884/.878 X .266 X .234 |
| 28 | 1 | 8041617 | REV. FLOW HANDLE, TRAILER UNIT |
| | 1 | 8041595 | PIN, SPRING REV FLOW HANDLE |
| 29 | 1 | W030080 | FLANGE BEARING - 2 BOLT (1" BORE) |
| 30 | 1 | 8048342 | REV FLOW UNIVERSAL JOINT RD SHAFT 49LE |
| 31 | 1 | 8045164 | 412 BLOWER ASSY |
| | 1 | 8045310 | SHEAVE, 6.35"OD SD 3-GROOVE |
| | 1 | 8045305 | BUSHING, 1 1/2" SD |
| | 2 | 8049066 | BELT, BP55 GP |
| * | 2 | 8041507 | TENSION ROD |
| * | 1 | 8047006 | TENSION BLOCK |

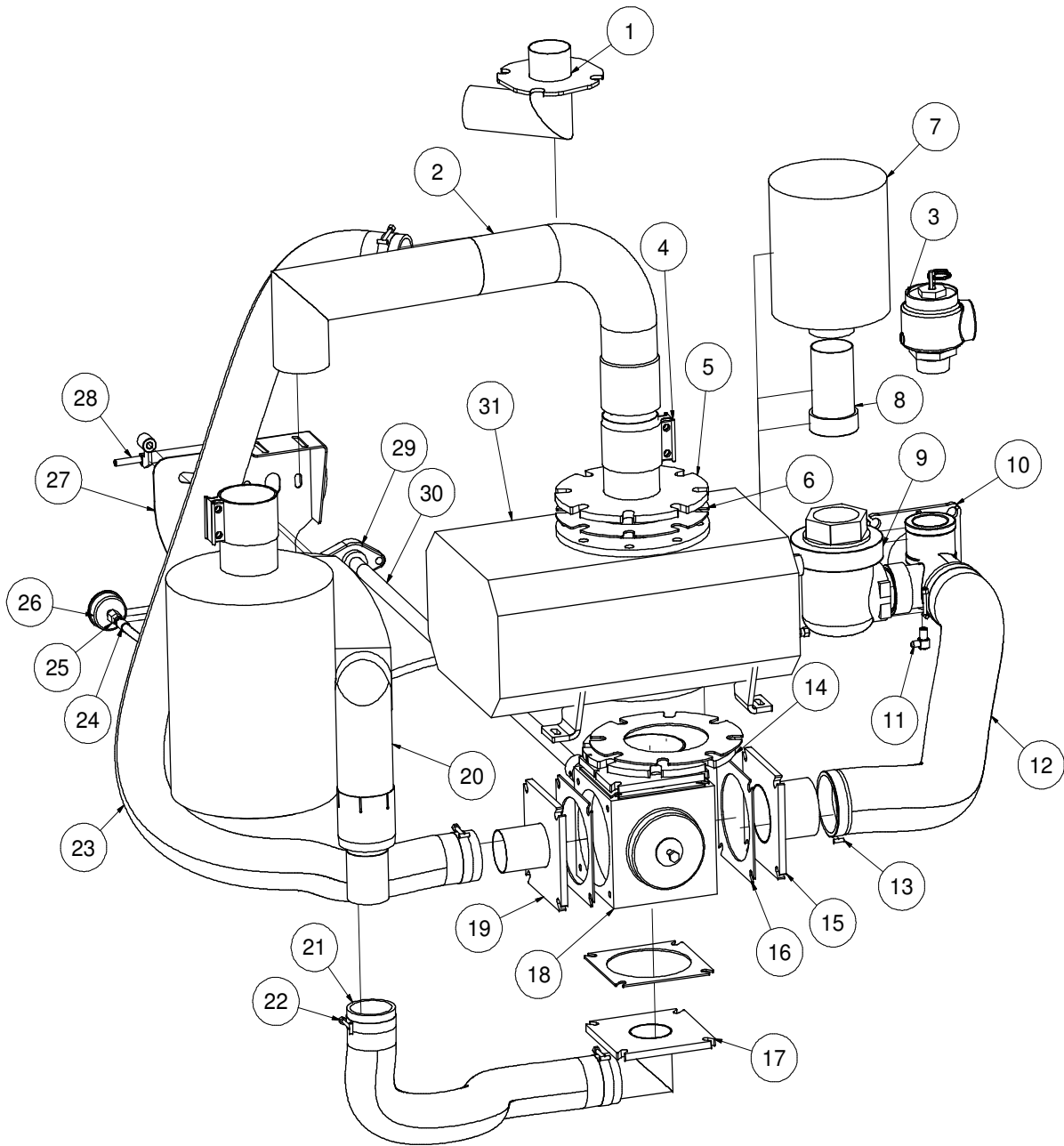
* NOT SHOWN

041214-E

VACASSY236

Blower Assembly

XTRF JETTER



090815-E

VACASSY01202

Blower Assembly

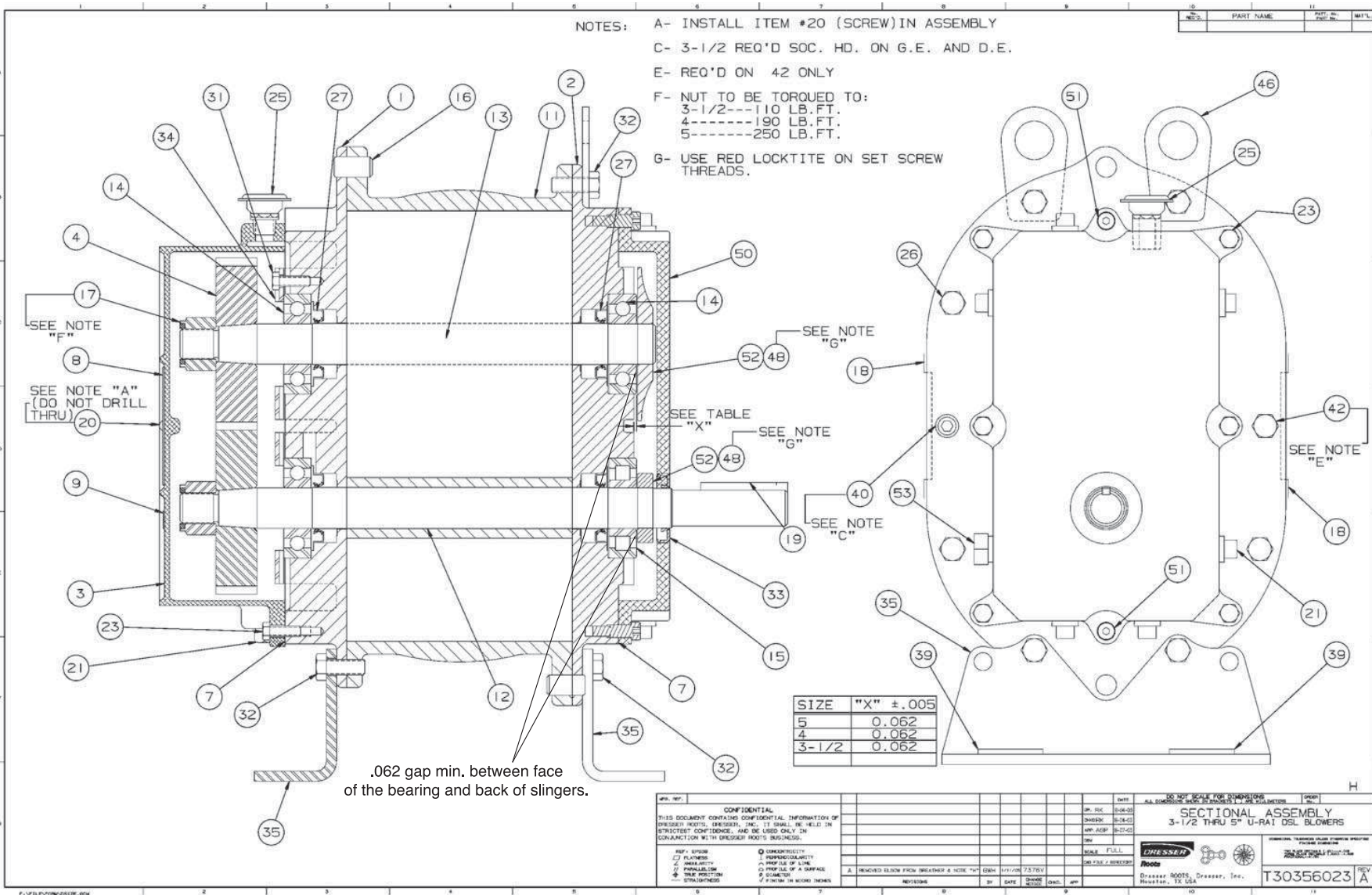
XTRF JETTER

| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|----------------|--|
| 1 | 1 | 8046218 | EXHAUST REV FLOW PIPE WELDMENT |
| 2 | 1 | 8046986 | EXHAUST 4" ID-OD W/ COUPLING WELDMENT |
| 3 | 1 | 8041305 | PRESSURE RELIEF 1025 |
| 4 | 2 | 8030400 | 4" BAND CLAMP |
| 5 | 1 | 8046988 | BLOWER OUTLET ROOTS 412 |
| 6 | 2 | 8046996 | GASKET, BLOWER FLANGE ROOTS 412 |
| 7 | 1 | 8043553 | AIR FILTER, 3" 245CFM |
| 8 | 1 | 8045238 | UNION EXHAUST 3" OD-MNPT |
| 9 | 1 | 8030866 | VALVE, 3" AIR RELIEF SET 15"HG (STANDARD) |
| | 1 | 8090438 | VALVE, 3" AIR RELIEF SET 13"HG (HIGH ALTITUDE) |
| 10 | 1 | 8048126 | 4" HEADER AIR FILTER HDRF |
| | 1 | 8048127 | HEADER, 4" AIR FILTER V2000/V2200 |
| | 1 | 8048128 | HEADER, 4" AIR FILTER V2600/3000 |
| | 1 | 8046191 | GASKET, HEADER |
| 11 | 1 | T401100 | ELBOW, 4MP - 4MJ 90 |
| 12 | 1 | 8046575 | HOSE VAC AG SUCTION 4-51" |
| 13 | 2 | 8042606 | CLAMP, T-BOLT 4" (350) |
| 14 | 1 | 8048089 | BRACKET REV FLOW BLOWER TO 4-WAY VALVE |
| 15 | 1 | 8046984 | FLANGE EXHAUST 4-WAY 6" X 4" TUBE |
| 16 | 4 | 8046995 | GASKET, FLANGE 4-WAY VALVE 6" |
| 17 | 1 | 8046981 | ELBOW EXHAUST 90 3" W/ FLANGE |
| 18 | 1 | 8045829 | VALVE, 4-WAY 6" |
| 19 | 1 | 8046985 | FLANGE EXHAUST 4-WAY 6" X 3" TUBE |
| 20 | 1 | 8030917 | SILENCER, 1025CFM, COWL |
| 21 | 1 | 8092928-065.00 | HOSE AG HOT AIR 3-65" |
| 22 | 2 | 8042605 | CLAMP T-BOLT 3" (350) |
| 23 | 1 | 8092928-034.00 | HOSE AG HOT AIR 4-34" |
| 24 | 1 | 8045869 | HOSE ASSY VAC 4-34" ST-ST |
| 25 | 1 | 8030483 | UNION, 4FP - 4MJ |
| 26 | 1 | 8041074 | GAUGE, VACUUM COMPOUND PRESSURE |
| 27 | 1 | 8046202 | BRACKET, REV FLOW CONTROL LE |
| | 3 | 8048585 | GROMMET, .884/.878 X .266 X .234 |
| 28 | 1 | 8041617 | REV. FLOW HANDLE, TRAILER UNIT |
| | 1 | 8041595 | PIN, SPRING REV FLOW HANDLE |
| 29 | 1 | W030080 | FLANGE BEARING - 2 BOLT (1" BORE) |
| 30 | 1 | 8048342 | REV FLOW UNIVERSAL JOINT RD SHAFT 49LE |
| 31 | 1 | 8045164 | 412 BLOWER ASSY |
| | 1 | 8045310 | SHEAVE, 6.35"OD SD 3-GROOVE |
| | 1 | 8045305 | BUSHING, 1 1/2" SD |
| | 2 | 8049070 | BELT, BP51 GP (JETTER UNIT ONLY) |
| * | 2 | 8041507 | TENSION ROD |
| * | 1 | 8047006 | TENSION BLOCK |

* NOT SHOWN

090815-E

VACASSY01202



Assembly of URAI DSL Blowers with Splash Lubricated Drive End 3-5" Gear Diameter

**URAI-DSL Splash Lubricated Blowers
5" Gear Diameter**

| Item # | Qty | Part # | Description |
|---------------|------------|---------------|----------------------------|
| 1 | 1 | 8040001-1 | Headplate Gear End |
| 2 | 1 | 8040001-2 | Headplate Drive End |
| 3 | 1 | 8040001-3 | Gearbox |
| 4 | 2 | 8040001-4 | Timing Gears |
| 7 | 1 | 8040001-7 | Gasket, Gear Box, DE Cover |
| 11 | 1 | 8040001-11 | Cylinder |
| 12 | 1 | 8040001-12 | Impeller & Shaft Drive |
| 13 | 1 | 8040001-13 | Impeller & shaft Driven |
| 14 | 3 | 8040001-14 | Bearing, Ball |
| 15 | 1 | 8040001-15 | Bearing, Roller |
| 16 | 4 | 8040001-16 | Pin, Dowel |
| 17 | 2 | 8040001-17 | Gear Nut |
| 19 | 1 | 8040001-19 | Key |
| 21 | 3 | 8040001-21 | Plug, Pipe |
| 23 | 6 | 8040001-23 | Screw Hex |
| 25 | 1 | 8040001-25 | Breather (Plug Vent) |
| 26 | * | 8040001-26 | Screw, Hex |
| 27 | 4 | 8040001-27 | Seal, Lip Bearing |
| 31 | 4 | 8040001-31 | Screw, Hex, Nylock |
| 32 | 6 | 8040001-32 | Screw, Hex |
| 33 | 1 | 8040001-33 | Seal Lip-Drive |
| 34 | 2 | 8040001-34 | Clamp Plate |
| 35 | 2 | 8040001-35 | Foot |
| 39 | 4 | 8040001-39 | Washer Mounting |
| 40 | 2 | 8040001-40 | Screw Socket |
| 42 | 2 | 8040001-42 | Screw Hex |
| 48 | 4 | 8040001-48 | DE Oil Slinger Set Screw |
| 50 | 1 | 8040001-50 | Drive End Cover |
| 52 | 2 | 8040001-52 | Drive End Oil Slinger |
| 53 | 2 | 8040001-53 | Oil Sight Glass |

*Quantities vary by blower.

RAM™ SERIES PARTS LIST 4" & 6" GEAR DIAMETER

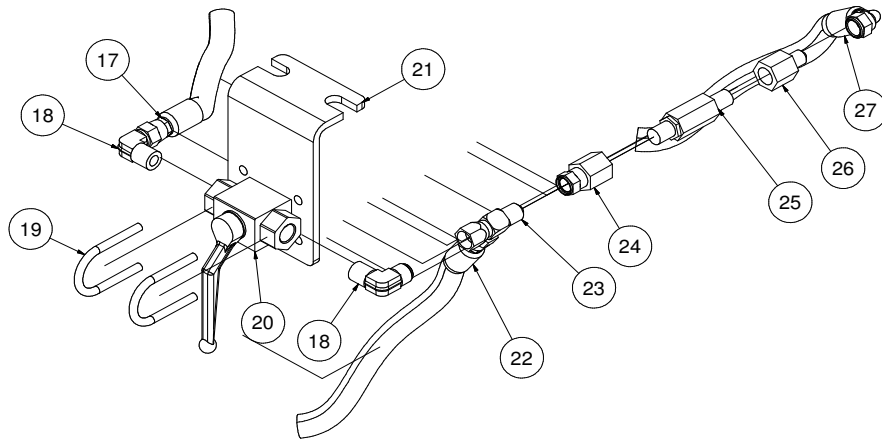
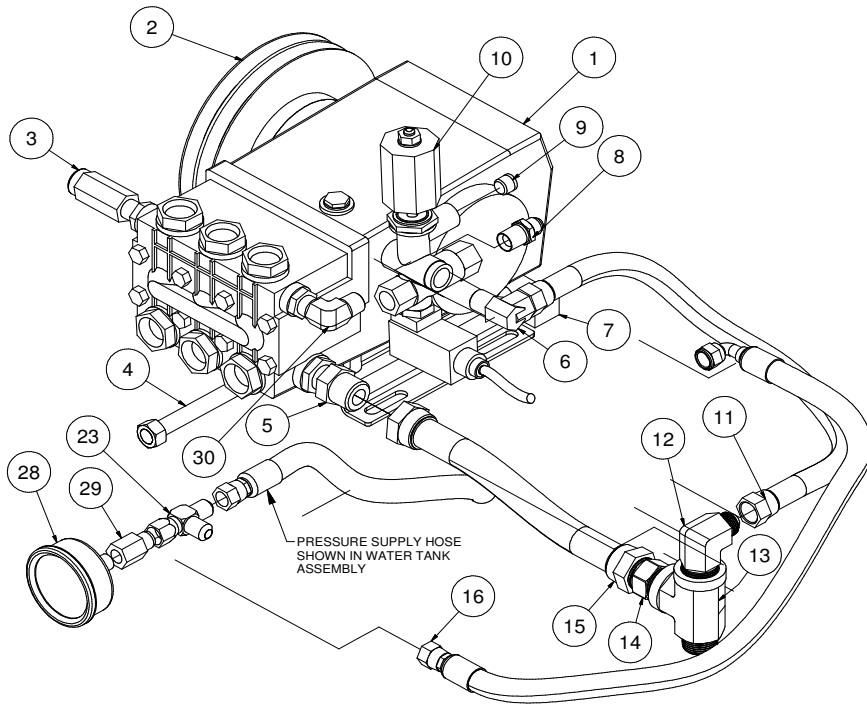
(Refer to drawing #81881023)

| Item # | Part Name | Qty. |
|--------|----------------------------|------|
| 1 | Headplate | 2 |
| 3 | Gearbox | 1 |
| 4 | Timing Gears | 2 |
| 5 | End Cover | 1 |
| 7 | Gasket – Gearbox/Cover | 2 |
| 10 | Shims | Lot |
| 11 | Cylinder | 1 |
| 12 | Impeller & Shaft Drive | 1 |
| 13 | Impeller & Shaft Driven | 1 |
| 14 | Bearing Roller | 4 |
| 16 | Pin, Dowel (Pull Out) | 4 |
| 17 | Pin, Dowel | 2 |
| 19 | Key Square | 1 |
| 21 | Breather | 2 |
| 22 | Plug, Pipe | 12 |
| 23 | Screw, Cap Hex Hd. | * |
| 27 | Seal, Ben Binh. | 4 |
| 28 | Piston, Ring-Seal | 4 |
| 29 | Washer, Wavy Spring | 2 |
| 31 | Gear Nut | 2 |
| 32 | Scr, Cap Hex Hd. | 16 |
| 33 | Seal, Lip Drive | 1 |
| 34 | Brg. Clamp Plate - D. E. | 2 |
| 35 | Lock Washer - Spring | 16 |
| 37 | Sight Plug - Oil Level | 2 |
| 38 | Sleeve, Shaft | 4 |
| 40 | Slinger - D.E. (Top Drive) | 1 |
| 46 | Slinger - G.E. (Optional) | 1 |
| 49 | Oil Leader L/S | 1 |
| 50 | Oil, Leader-R/S | 1 |
| 54 | Brg Clamp Plate - G. E. | 2 |
| 60 | Screw, Cap Butt. HD. | 1 |
| 64 | Pin, Spring | 1 |
| 66 | Screw, Cap Hex HD. | * |
| 66.1 | Whispair, Spring Lock 3/8M | * |
| 70 | Shims D.E. Brg. | 1 |
| 75 | Screw, Cap - Hex HD. | * |
| 76 | Blower Foot - RH | 2 |
| 77 | Blower Foot - LH | 2 |
| 85 | Elb, Pipe-Black | 2 |
| 85.1 | Plug, Pipe | 2 |
| 87 | Scr, Cap BH | 2 |
| 88 | Anti Rotation Ball | 4 |
| 90 | BSHG-RDCG | 2 |
| 91 | Washer, Plain Flat | 2 |
| 92 | Washer, Plain Flat | 2 |
| 93 | Washer | 2 |

*Quantity varies by blower.

Water Pump Assembly

TS2021 (67/85HP)



062314-E

VACASSY01301

Water Pump Assembly

TS2021 (67/85HP)

| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|----------|---------------------------------------|
| 1 | 1 | 8031279 | WATER PUMP |
| | 4 | U000420 | SCREW, HC 3/8"-16 X 1" |
| | 4 | U210060 | WASHER, LOCK 3/8" |
| | 4 | U200600 | WASHER, FLAT 3/8" |
| 2 | 1 | 8030961 | WATER PUMP CLUTCH |
| | 1 | U410094 | KEY 5/16" X 5/16" X 1 3/8" |
| 3 | 1 | 8030340 | SAFETY RELIEF VALVE 6GPM |
| 4 | 1 | 8040751 | ROD TIGHTENER WELD'T |
| 5 | 1 | T400080 | REDUCER, 12MP - 8MJ |
| 6 | 1 | T401120 | ELBOW,90 3/8"MP-1/2"MJ |
| 7 | 1 | 8040893 | TENSIONER BLOCK, ADJUSTING |
| 8 | 1 | T400028 | ADAPTER,STR 6MP - 6MJ, STEEL |
| 9 | 1 | T405035 | PLUG, 1/4"MP SOCKET HEAD |
| 10 | 1 | 8048979 | VALVE, UNLOADER BLUE W/SWITCH |
| 11 | 1 | 8049687 | HOSE VAC PUSH 8 - 19"LG (49HP & 67HP) |
| 12 | 1 | T401160 | ELBOW,90 3/4"MJ - 1/2"MJ |
| 13 | 1 | T402080 | TEE, 12FP - 12FP - 12MP |
| 14 | 1 | T400100 | UNION, 12MP - 12MJ |
| 15 | 1 | 8040972 | HOSE VAC PUSH 12 - 8 1/2"LG |
| | 2 | 8030525 | FITTING, HOSE #12FJ PUSHLOCK |
| 16 | 1 | 8043848 | HOSE ASSY VAC 6 - 34" ST-90 |
| 17 | 1 | 8049021 | HOSE ASSY VAC 6 - 100" ST-90 |
| 18 | 2 | 8030498 | ELBOW, 90 6MP - 6MJ |
| 19 | 2 | U010017 | CLAMP HOOK, 1 1/2" 1/4-20 THD |
| | 4 | U100020 | NUT, HEX 1/4"-20 |
| 20 | 1 | 8030351 | STEEL BALL VALVE, 3/8"NPT |
| 21 | 1 | 8040670 | BALL VALVE BRACKET |
| 22 | 1 | 8049022 | HOSE ASSY VAC 6-173" ST-ST |
| 23 | 2 | T402153 | TEE, 6MJ - 6MJ - 6FJ |
| 24 | 1 | T400083 | UNION, 6FP - 6FJ |
| 25 | 1 | 8030923 | FILTER, WATER HIGH PRESSURE |
| 26 | 1 | T400031 | UNION, 6MJ - 6FP |
| 27 | 1 | 8049023 | HOSE ASSY VAC 6-370" ST-90 |
| 28 | 1 | 8030372 | WATER PRESSURE GAUGE 1/4"NPT |
| 29 | 1 | 8031126 | REDUCER, 1/4"FP - 3/8"MJ |
| 30 | 1 | T401020 | ELBOW, 3/8"MP - 3/8"MP |
| * | 2 | 8047315 | BELT, AX 49 (67HP) (DOMESTIC) |
| * | 2 | 8041803 | BELT, AX 47 (67HP) (INTERNATIONAL) |

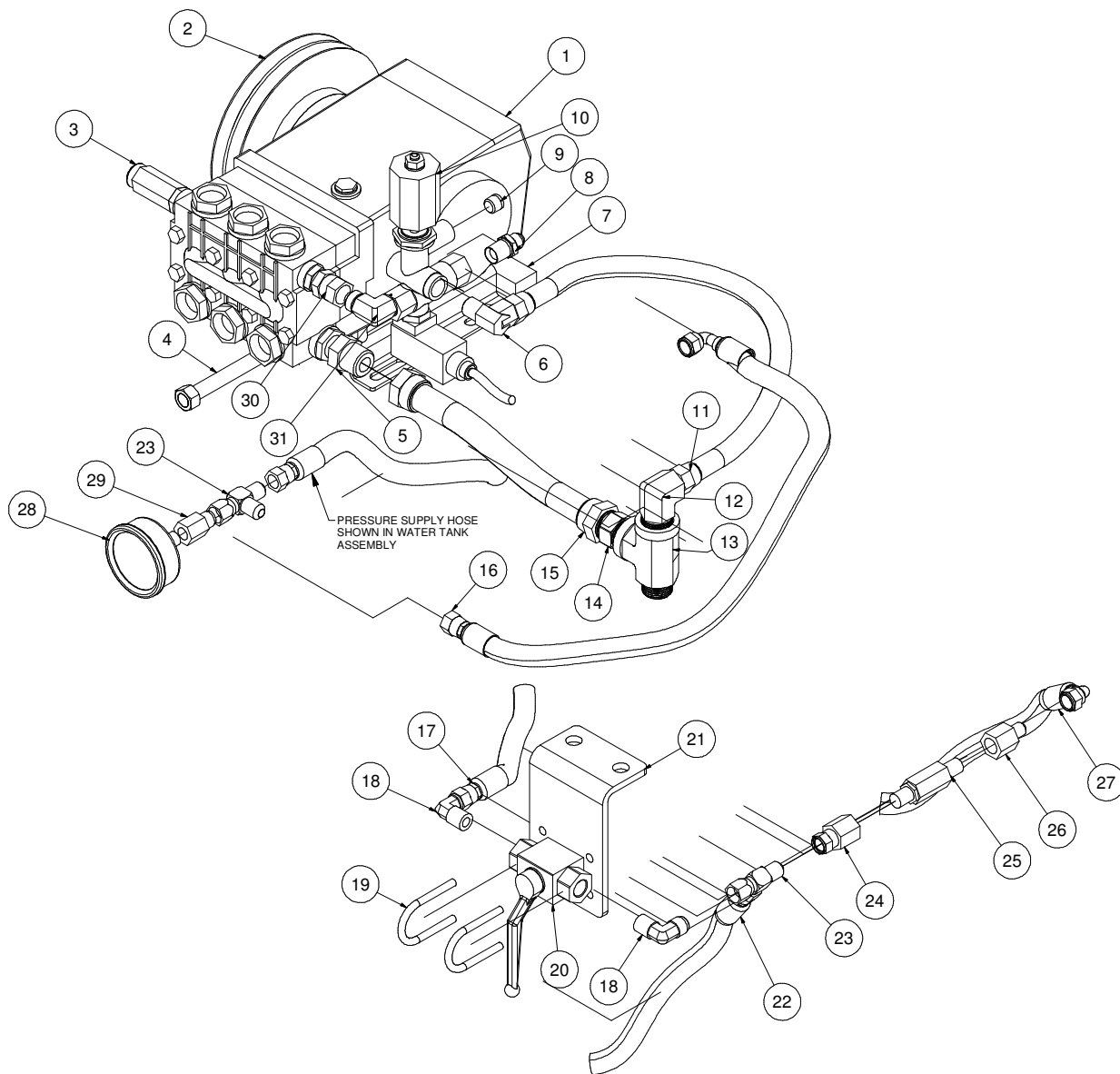
* NOT SHOWN

062314-E

VACASSY01301

Water Pump Assembly

TS2021 (99HP)



030814-E

VACASSY01307

Water Pump Assembly

TS2021 (99HP)

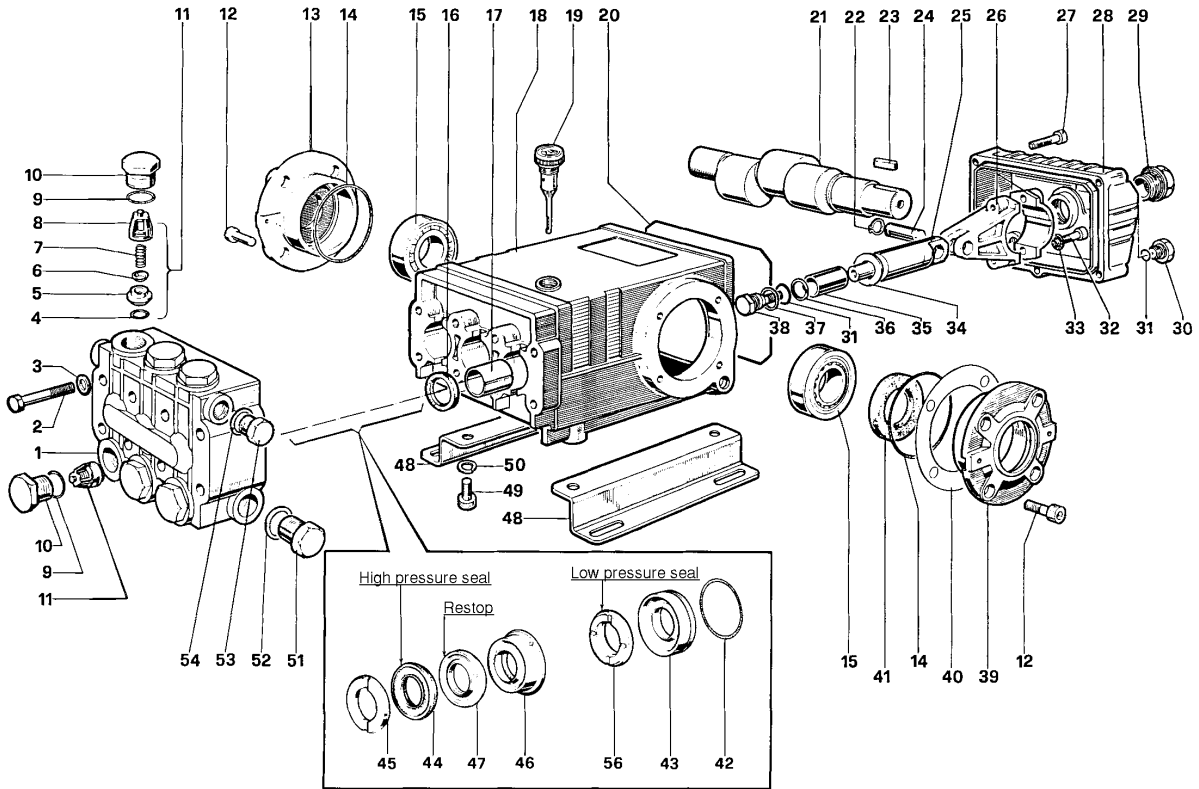
| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|----------|---------------------------------------|
| 1 | 1 | 8031279 | WATER PUMP |
| | 4 | U000420 | SCREW, HC 3/8"-16 X 1" |
| | 4 | U210060 | WASHER, LOCK 3/8" |
| | 4 | U200600 | WASHER, FLAT 3/8" |
| 2 | 1 | 8030961 | WATER PUMP CLUTCH |
| | 1 | U410094 | KEY 5/16" X 5/16" X 1 3/8" |
| 3 | 1 | 8030340 | SAFETY RELIEF VALVE 6GPM |
| 4 | 1 | 8040751 | ROD TIGHTENER WELD'T |
| 5 | 1 | T400080 | REDUCER, 12MP - 8MJ |
| 6 | 1 | T401120 | ELBOW,90 3/8"MP-1/2"MJ |
| 7 | 1 | 8040893 | TENSIONER BLOCK, ADJUSTING |
| 8 | 1 | T400028 | ADAPTER,STR 6MP - 6MJ, STEEL |
| 9 | 1 | T405035 | PLUG, 1/4"MP SOCKET HEAD |
| 10 | 1 | 8048979 | VALVE, UNLOADER BLUE W/SWITCH |
| 11 | 1 | 8049687 | HOSE VAC PUSH 8 - 19"LG (49HP & 67HP) |
| 12 | 1 | T401160 | ELBOW,90 3/4"MJ - 1/2"MJ |
| 13 | 1 | T402080 | TEE, 12FP - 12FP - 12MP |
| 14 | 1 | T400100 | UNION, 12MP - 12MJ |
| 15 | 1 | 8040972 | HOSE VAC PUSH 12 - 8 1/2"LG |
| | 2 | 8030525 | FITTING, HOSE #12FJ PUSHLOCK |
| 16 | 1 | 8043848 | HOSE ASSY VAC 6 - 34" ST-90 |
| 17 | 1 | 8049021 | HOSE ASSY VAC 6 - 100" ST-90 |
| 18 | 2 | 8030498 | ELBOW, 90 6MP - 6MJ |
| 19 | 2 | U010017 | CLAMP HOOK, 1 1/2" 1/4-20 THD |
| | 4 | U100020 | NUT, HEX 1/4"-20 |
| 20 | 1 | 8030351 | STEEL BALL VALVE, 3/8"NPT |
| 21 | 1 | 8040670 | BALL VALVE BRACKET |
| 22 | 1 | 8049022 | HOSE ASSY VAC 6-173" ST-ST |
| 23 | 2 | T402153 | TEE, 6MJ - 6MJ - 6FJ |
| 24 | 1 | T400083 | UNION, 6FP - 6FJ |
| 25 | 1 | 8030923 | FILTER, WATER HIGH PRESSURE |
| 26 | 1 | T400031 | UNION, 6MJ - 6FP |
| 27 | 1 | 8049023 | HOSE ASSY VAC 6-370" ST-90 |
| 28 | 1 | 8030372 | WATER PRESSURE GAUGE 1/4"NPT |
| 29 | 1 | 8031126 | REDUCER, 1/4"FP - 3/8"MJ |
| 30 | 1 | T400814 | UNION, 1/2"MP - 1/2"FJ |
| 31 | 1 | T401120 | ELBOW, 90 3/8"MP - 1/2"MJ |
| * | 2 | 8041082 | BELT, AX 48 (99HP) |

* NOT SHOWN

030814-E

VACASSY01307

Water Pump TS2021



TORQUE SPECS*

*Decrease torque by 20%
if threads are lubricated

| Position | Ft. Lbs. | N-M |
|----------|----------|------|
| 2 | 22.1 | 29.9 |
| 10 | 73.7 | 99.9 |
| 12 | 14.7 | 19.2 |
| 27 | 7.3 | 9.9 |
| 29 | 13.2 | 17.9 |
| 30 | 14.7 | 19.2 |
| 32 | 14.7 | 19.2 |
| 38 | 14.7 | 19.2 |
| 49 | 29.4 | 39.8 |
| 51 | 29.4 | 39.8 |
| 53 | 29.4 | 39.8 |

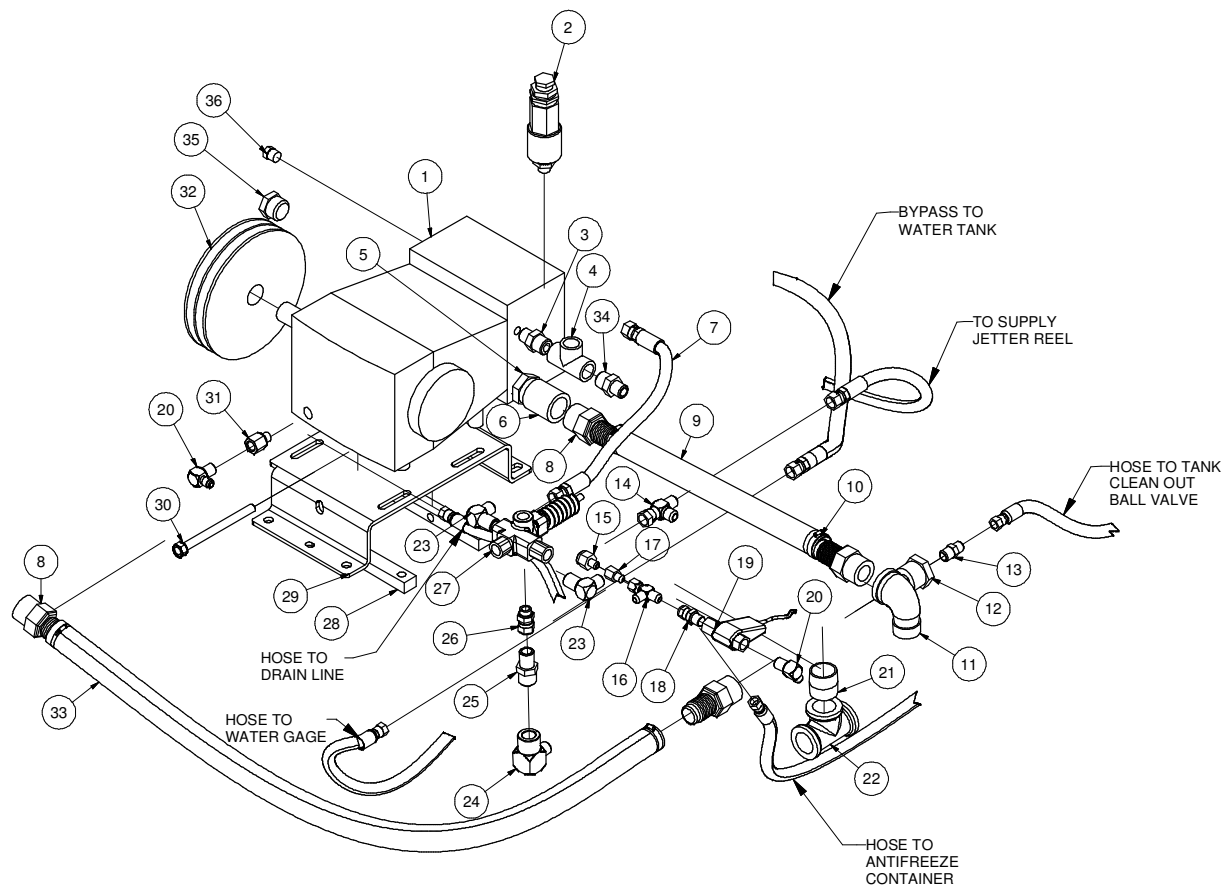
Water Pump TS2021

| ITEM | QTY. | PART # | DESCRIPTION | ITEM #'S | NO. OF ASSY | NO. OF CYL KIT |
|------|------|------------|----------------------|---------------|--------------------|----------------|
| | | | | KIT # | INCL'D IN KIT | WILL SERVICE |
| 1 | 1 | 8031280-1 | Manifold | | | |
| 2 | 8 | 8031280-2 | Screw, M8 x 70 | | | |
| 3 | 8 | 8031280-3 | Washer, M8 x 4 | 8031280-KIT1 | 4, 5, 6, 7, 8 (11) | 3 |
| 4 | 8 | 8031280-4 | O-ring, .674 x .103 | | | |
| 5 | 6 | 8031280-5 | Seat, Valve | 8031280-KIT2 | 16 | 3 |
| 6 | 6 | 8031280-6 | Plate, Valve | | | |
| 7 | 6 | 8031280-7 | Spring | 8031280-KIT3 | 41 | 0 |
| 8 | 6 | 8031280-8 | Guide, Valve | | | |
| 9 | 6 | 8031280-9 | O-ring,.797x.103 | 8031280-KIT4 | 9, 10 | 3 |
| 10 | 6 | 8031280-10 | Cap | | | |
| 11 | 6 | 8031280-11 | Valve Assembly | 8031280-KIT5 | 9, 10 | 3 |
| 12 | 8 | 8031280-12 | Screw, M8 x 16 | | | |
| 13 | 1 | 8031280-13 | Cover, Crankcase | 8031280-KIT6 | 31, 34 | 3 |
| 14 | 2 | 8031280-14 | O-ring, 2.675 x .103 | | | |
| 15 | 2 | 8031280-15 | Bearing, Roller | | | |
| 16 | 3 | 8031280-16 | Seal, Oil | | 36, 37, 38 | |
| 17 | 3 | 8031280-17 | Bushing | 8031280-KIT7 | 45 | 3 |
| 18 | 1 | 8031280-18 | Crankcase | | | |
| 19 | 1 | 8031280-19 | Oil Dip Stick | 8031280-KIT10 | 42, 43 | 3 |
| 20 | 1 | 8031280-20 | O-ring, Cover | | | |
| 21 | 1 | 8031280-21 | Crankshaft | 8031280-KIT28 | 42, 43, 44, | 1 |
| 22 | 6 | 8031280-22 | Ring, Snap | | | |
| 23 | 1 | 8031280-23 | Key | | 45, 45, 47, 56 | |
| 24 | 3 | 8031280-24 | Pin, Wrist | | | |
| 25 | 3 | 8031280-25 | Guide, Plunger | 8031280-KIT69 | 44, 47, 56 | 3 |
| 26 | 3 | 8031280-26 | Rod, Connecting | | | |
| 27 | 5 | 8031280-27 | Screw, M6 x 30 | 8031280-KIT71 | 46, 47 | 3 |
| 28 | 1 | 8031280-28 | Cover, Crankcase | | | |
| 29 | 6 | 8031280-29 | Oil Indicator | | | |
| 30 | 1 | 8031280-30 | Cap | | | |
| 31 | 4 | 8031280-31 | O-ring,.426x.070 | | | |
| 32 | 6 | 8031280-32 | Screw, M8 x 35 | | | |
| 33 | 6 | 8031280-33 | Washer, M8.4 | | | |
| 34 | 3 | 8031280-34 | Washer, M14 | | | |
| 35 | 3 | 8031280-35 | Plunger (20 mm) | | | |
| 37 | 3 | 8031280-37 | Washer | | | |
| 38 | 3 | 8031280-38 | Screw, Plunger | | | |
| 39 | 1 | 8031280-39 | Cover, Crankcase | | | |
| 40 | 2 | 8031280-40 | Shim | | | |
| 41 | 1 | 8031280-41 | Seal, Oil | | | |
| 42 | 3 | 8031280-42 | O-ring, 1.364x.070 | | | |
| 43 | 3 | 8031280-43 | Retainer, Packing | | | |
| 44 | 3 | 8031280-44 | Packing | | | |
| 45 | 3 | 8031280-45 | Ring, Head, M20 | | | |
| 46 | 3 | 8031280-46 | Intermed. Ring | | | |
| 47 | 3 | 8031280-47 | Testop Ring | | | |
| 48 | 2 | 8031280-48 | Pump Feet | | | |
| 49 | 4 | 8031280-49 | Screw, M10 x 18 | | | |
| 50 | 4 | 8031280-50 | Washer, M10.2 | | | |
| 51 | 1 | 8031280-51 | Cap | | | |
| 52 | 1 | 8031280-52 | Washer, M21.5 | | | |
| 53 | 1 | 8031280-53 | Cap | | | |
| 54 | 1 | 8031280-54 | Washer, M17.5 | | | |
| 56 | 3 | 8031280-56 | Seal,Low Press,20mm | | | |

VACASSY325

Water Pump Assembly KE24

67HP



040813-E

VACASSY305

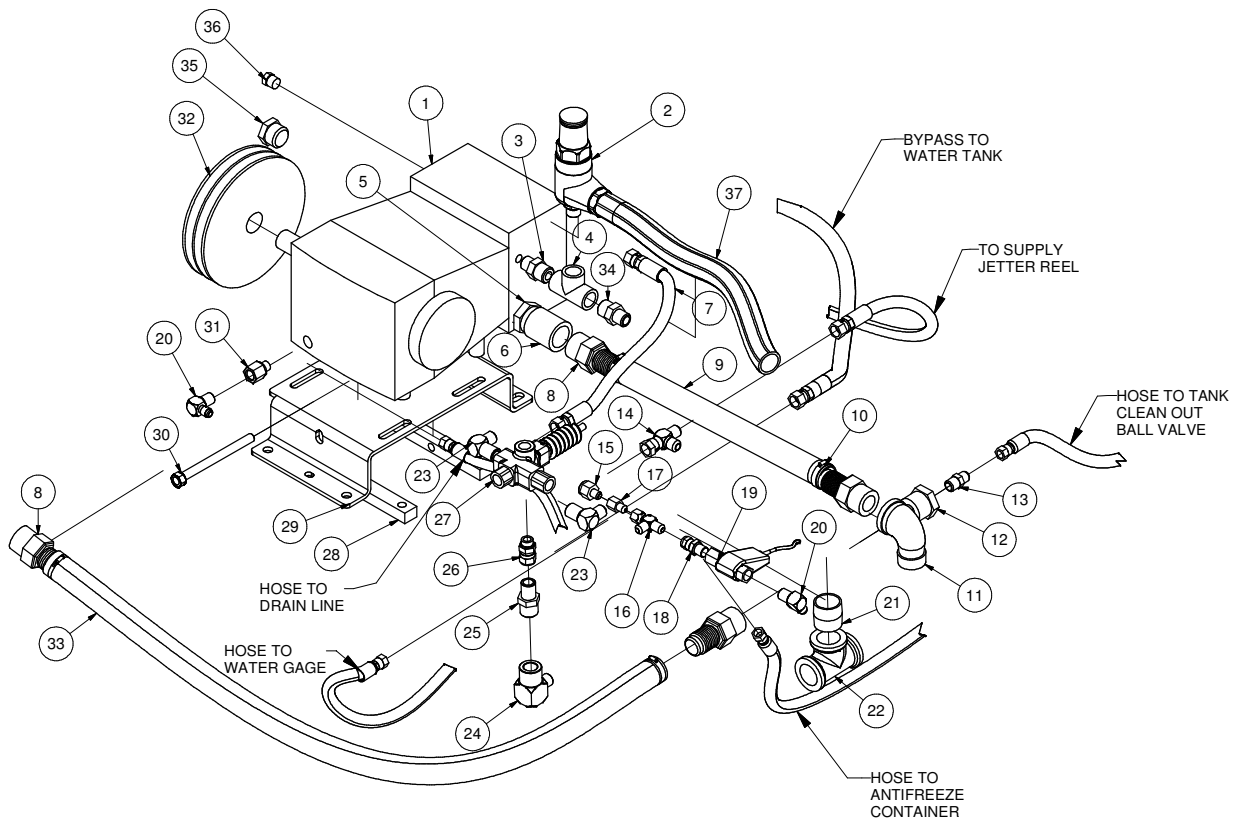
Water Pump Assembly KE24

67HP

| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|----------|--------------------------------|
| 1 | 1 | 8042352 | WATER PUMP KE24 |
| 2 | 1 | 8040556 | SV2-300 SAFETY RELIEF VALVE |
| * | 1 | T400139 | UNION, 1/2 MP-1/2 FBSPP |
| * | 1 | T403085 | REDUCER, 3/4MP-1/2FP |
| 3 | 1 | T404030 | REDUCER, 1/2MP-3/4MP |
| 4 | 1 | T402160 | TEE, 3/4FP-3/4FP-3/4FP |
| 5 | 1 | T400618 | REDUCER, 1"MP X 1 1/4"MP |
| 6 | 1 | T422080 | COUPLING, 1 1/4" |
| 7 | 1 | 8044647 | HOSE ASSY VAC 8-14 ST-ST |
| 8 | 4 | 8041312 | FITTING, HOSE BARB 20HB-20MP |
| 9 | 1 | 8042940 | HOSE VAC CLEAR VINYL 1 1/4-18" |
| 10 | 4 | 8040677 | CLAMP, HOSE 1 1/2 |
| 11 | 1 | T420120 | STREET ELBOW 90 - 1 1/4" |
| 12 | 1 | T403110 | REDUCER, 1 1/4"MP-1/2"FP GALV |
| 13 | 1 | 8031291 | UNION, 1/2MP-3/8MJ |
| 14 | 1 | T402155 | TEE, 1/2"FJ-1/2"MJ-1/2"MJ |
| 15 | 1 | T403130 | UNION, 8FJ-6MJ |
| 16 | 1 | T402153 | TEE, 6MJ-6MJ-6FJ |
| 17 | 1 | 8042267 | ORIFICE 6MJ-6FJ .094" |
| 18 | 1 | T400813 | UNION, 6FJ-6MP |
| 19 | 1 | 8031267 | FLOW SWITCH |
| 20 | 2 | T401102 | ELBOW, 6MJ-6MP |
| 21 | 1 | T421040 | NIPPLE, PIPE 1 1/4"MNPT |
| 22 | 1 | 8041049 | TEE, 1 1/4" PIPE |
| 23 | 2 | T401140 | ELBOW, 8MP-8MJ |
| 24 | 1 | T401160 | ELBOW, 12MP-12MJ |
| 25 | 1 | T400070 | UNION, 1/2MP-3/4MJIC |
| 26 | 1 | T400814 | UNION, 8MP-8FJ |
| 27 | 1 | 8030341 | VALVE, UNLOADER, GREENSPRING |
| 28 | 2 | 8043317 | TENSIONER BLOCK, ADJUSTING |
| 29 | 1 | 8044167 | PUMP BRACKET KE24A |
| 30 | 1 | 8030020 | ROD, TENSIONER |
| 31 | 1 | T400119 | UNION, 3/8MBSPP X 3/8FP |
| 32 | 1 | 8043248 | SHEAVE, 9.75" OD SK 2-GROOVE |
| * | 1 | 8040644 | BUSHING, SK |
| * | 2 | 8049164 | BELT, BP61 |
| 33 | 1 | 8043076 | HOSE VAC CLEAR VINYL 1 1/4-37" |
| 34 | 1 | T400080 | REDUCER, 3/4"MP X 1/2"MJ |
| 35 | 1 | T405120 | PLUG, 1" MB |
| 36 | 1 | T405062 | PLUG, 1/2"NPT |

Water Pump Assembly KE24

99HP



012014-E

VACASSY01302

Water Pump Assembly KE24

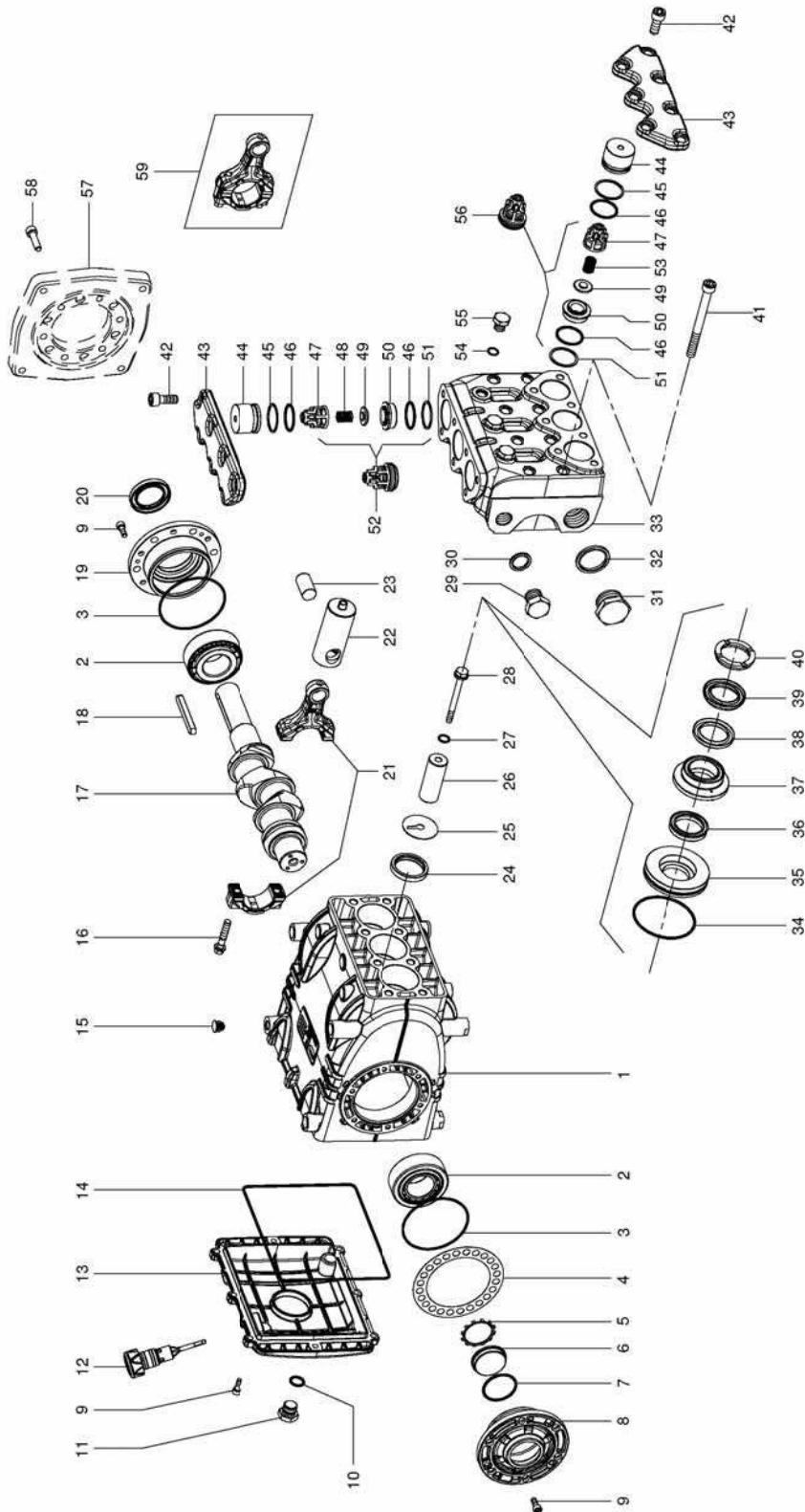
99HP

| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|----------|--------------------------------|
| 1 | 1 | 8042352 | WATER PUMP KE24 |
| 2 | 1 | 8040556 | SV2-300 SAFETY RELIEF VALVE |
| * | 2 | 8090615 | CLAMP, HOSE |
| * | 1 | T400139 | UNION, 1/2 MP-1/2 FBSPP |
| * | 1 | T403085 | REDUCER, 3/4MP-1/2FP |
| 3 | 1 | T404030 | REDUCER, 1/2MP-3/4MP |
| 4 | 1 | T402160 | TEE, 3/4FP-3/4FP-3/4FP |
| 5 | 1 | T400618 | REDUCER, 1"MP X 1 1/4"MP |
| 6 | 1 | T422080 | COUPLING, 1 1/4" |
| 7 | 1 | 8044647 | HOSE ASSY VAC 8-14 ST-ST |
| 8 | 4 | 8041312 | FITTING, HOSE BARB 20HB-20MP |
| 9 | 1 | 8042940 | HOSE VAC CLEAR VINYL 1 1/4-18" |
| 10 | 4 | 8040677 | CLAMP, HOSE 1 1/2 |
| 11 | 1 | T420120 | STREET ELBOW 90 - 1 1/4" |
| 12 | 1 | T403110 | REDUCER, 1 1/4"MP-1/2"FP GALV |
| 13 | 1 | 8031291 | UNION, 1/2MP-3/8MJ |
| 14 | 1 | T402155 | TEE, 1/2"FJ-1/2"MJ-1/2"MJ |
| 15 | 1 | T403130 | UNION, 8FJ-6MJ |
| 16 | 1 | T402153 | TEE, 6MJ-6MJ-6FJ |
| 17 | 1 | 8042267 | ORIFICE 6MJ-6FJ .094" |
| 18 | 1 | T400813 | UNION, 6FJ-6MP |
| 19 | 1 | 8031267 | FLOW SWITCH |
| 20 | 2 | T401102 | ELBOW, 6MJ-6MP |
| 21 | 1 | T421040 | NIPPLE, PIPE 1 1/4"MNPT |
| 22 | 1 | 8041049 | TEE, 1 1/4" PIPE |
| 23 | 2 | T401140 | ELBOW, 8MP-8MJ |
| 24 | 1 | T401160 | ELBOW, 12MP-12MJ |
| 25 | 1 | T400070 | UNION, 1/2MP-3/4MJIC |
| 26 | 1 | T400814 | UNION, 8MP-8FJ |
| 27 | 1 | 8030341 | VALVE, UNLOADER, GREENSPRING |
| 28 | 2 | 8043317 | TENSIONER BLOCK, ADJUSTING |
| 29 | 1 | 8044167 | PUMP BRACKET KE24A |
| 30 | 1 | 8030020 | ROD, TENSIONER |
| 31 | 1 | T400119 | UNION, 3/8MBSPP X 3/8FP |
| 32 | 1 | 8043248 | SHEAVE, 9.75" OD SK 2-GROOVE |
| * | 1 | 8040644 | BUSHING, SK |
| * | 2 | 8049165 | BELT, BP62 |
| 33 | 1 | 8043076 | HOSE VAC CLEAR VINYL 1 1/4-37" |
| 34 | 1 | T400080 | REDUCER, 3/4"MP X 1/2"MJ |
| 35 | 1 | T405120 | PLUG, 1" MB |
| 36 | 1 | T405062 | PLUG, 1/2"NPT |
| 37 | 1 | 8090617 | HOSE, 1/2" - 36"LG |

OPTION FOR COMPRESSOR SET UP

| | | | |
|---|---|---------|---------------|
| * | 1 | 8046682 | PUMP, MOUNT |
| * | 2 | 8046731 | TENSION BLOCK |

Water Pump Assembly KE24



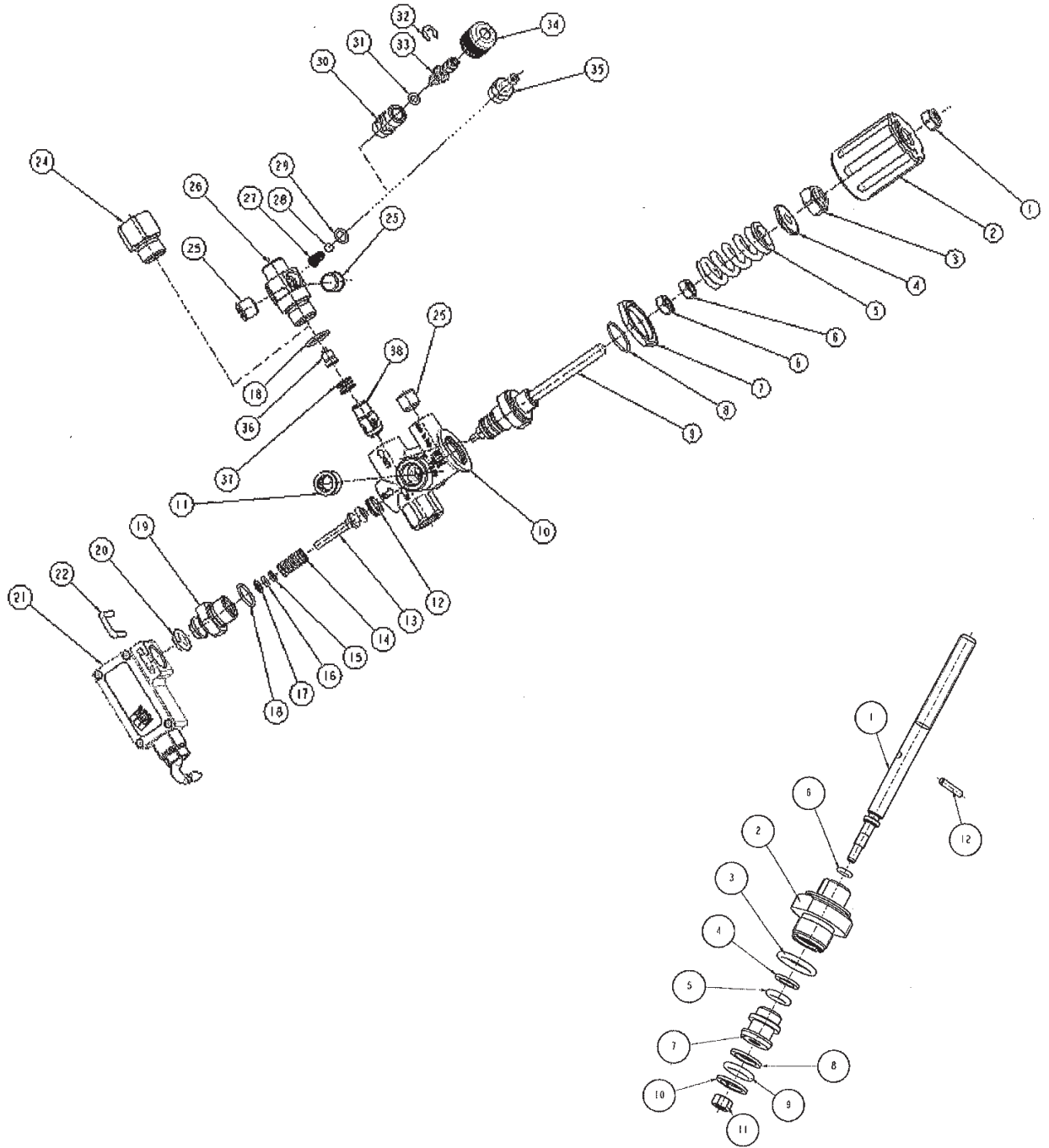
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VACASSY329

Water Pump Assembly KE24

| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|------------|--|
| 1 | 1 | 8042352-1 | PUMP CRANKCASE |
| 2 | 2 | 8042352-2 | ROLLER BEARING 33207/Q |
| 3 | 2 | 8042352-3 | O-RING D. 80,6X2,62 |
| 4 | | 8042352-4 | SHIM 0,1 |
| | | * | SHIM, 25 |
| | | * | SHIM, 0,35 |
| 5 | 1 | 8042352-5 | RING ZJ45 |
| 6 | 1 | 8042352-6 | OIL LEVEL INDICATOR |
| 7 | 1 | 8042352-7 | O-RING D. 39,34X2,62 |
| 8 | 1 | 8042352-8 | OIL LEVEL INDICATOR SIDE BEARING COVER |
| 9 | 20 | 8042352-9 | SCREW TCEI M6X16 UNI 5931 |
| 10 | 1 | 8042352-10 | O-RING D. 13,95X2,62 |
| 11 | 1 | 8042352-11 | PLUG G3/8" |
| 12 | 1 | 8042352-12 | DIPSTICK |
| 13 | 1 | 8042352-13 | CRANKCASE COVER |
| 14 | 1 | 8042352-14 | O-RING D. 196,52X2,62 |
| 15 | 7 | 8042352-15 | PLUG FOR D. 15 PORT |
| 16 | 6 | 8042352-16 | CONNECTING ROD SCREW |
| 17 | 1 | 8042352-17 | CRANKSHAFT |
| 18 | 1 | 8042352-18 | CRANKSHAFT KEY |
| 19 | 1 | 8042352-19 | MOTOR SIDE BEARING COVER |
| 20 | 1 | 8042352-20 | OIL SEAL 35X52X7 SPEC |
| 21 | 3 | 8042352-21 | CONNECTING ROD |
| 22 | 3 | 8042352-22 | PISTON |
| 23 | 3 | 8042352-23 | PIN D. 18X36 |
| 24 | 3 | 8042352-24 | SEAL 36X47X7 |
| 25 | 3 | 8042352-25 | WIPER |
| 26 | 3 | 8042352-26 | PLUNGER KE24 |
| 27 | 3 | 8042352-27 | O-RING D. 11X2 SPEC |
| 28 | 3 | 8042352-28 | PLUNGER BOLT |
| 29 | 1 | 8042352-29 | PLUG G1/2"X18 |
| 30 | 1 | 8042352-30 | WASHER D.1/2" |
| 31 | 1 | 8042352-31 | PLUG G1"X17 |
| 32 | 1 | 8042352-32 | WASHER D.1" |
| 33 | 1 | 8042352-33 | MANIFOLD D22-24 |
| 34 | 3 | 8042352-34 | OR D.50C52X1.78 KIT 2002-3-4-5-6-7-8-9-10-11 |
| 35 | 3 | 8042352-35 | PACKING RETAINER D.24 |
| 36 | 3 | 8042352-36 | PACKING D.24 L.P. KIT 2006-2007 |
| 37 | 3 | 8042352-37 | MIDDLE RING D.24 KIT 2007 |
| 38 | 3 | 8042352-38 | RESTOP RING D.24 KIT 2006-2007 |
| 39 | 3 | 8042352-39 | PACKING D.24 H.P. KIT 2006-2007 |
| 40 | 3 | 8042352-40 | FRONT RING D.24 KIT 2007 |
| 41 | 8 | 8042352-41 | SCREW TCEI M10X110 UNI 5931 |
| 42 | 14 | 8042352-42 | SCREW TCEI M10X25 UNI 5931 SPEC. |
| 43 | 2 | 8042352-43 | VALVE COVER |
| 44 | 6 | 8042352-44 | VALVE PLUG |
| 45 | 6 | 8042352-45 | BACK UP RING D.32,4X36,5X1,5 |
| 46 | 12 | 8042352-46 | O-RING D.29.82X2,62 KIT 2000-2001 |
| 47 | 6 | 8042352-47 | SUCTION/DELIVERY VALVE GUIDE PLATE KIT 2000-2001 |
| 48 | 3 | 8042352-48 | DELIVERY VALVE SPRING KIT 2001 |
| 49 | 6 | 8042352-49 | SUCTION/DELIVERY VALVE PLATE KIT 2000-2001 |
| 50 | 6 | 8042352-50 | SUCTION/DELIVERY VALVE SEAT KIT 2000-2001 |
| 51 | 6 | 8042352-51 | BACK UP RING D.31X35,5X1,5 |
| 52 | 3 | 8042352-52 | DELIVERY VALVE ASSEMBLY KIT 2001 |
| 53 | 3 | 8042352-53 | SUCTION VALVE SPRING KIT 2000 |
| 54 | 3 | 8042352-54 | O-RING D.10,82X1,78 |
| 55 | 3 | 8042352-55 | PLUG G1/4"X13 |
| 56 | 3 | 8042352-56 | SUCTION VALVE ASSEMBLY KIT 2000 |
| 57 | 1 | 8042352-57 | HYDRAULIC MOTOR FLANGE |
| 58 | 6 | 8042352-58 | SCREW TCEI M8X30 UNI 5931 |
| 59 | 3 | 8042352-59 | CONNECTING ROD (COMPLETE) |

Unloader Valve PULSAR4KHPMS



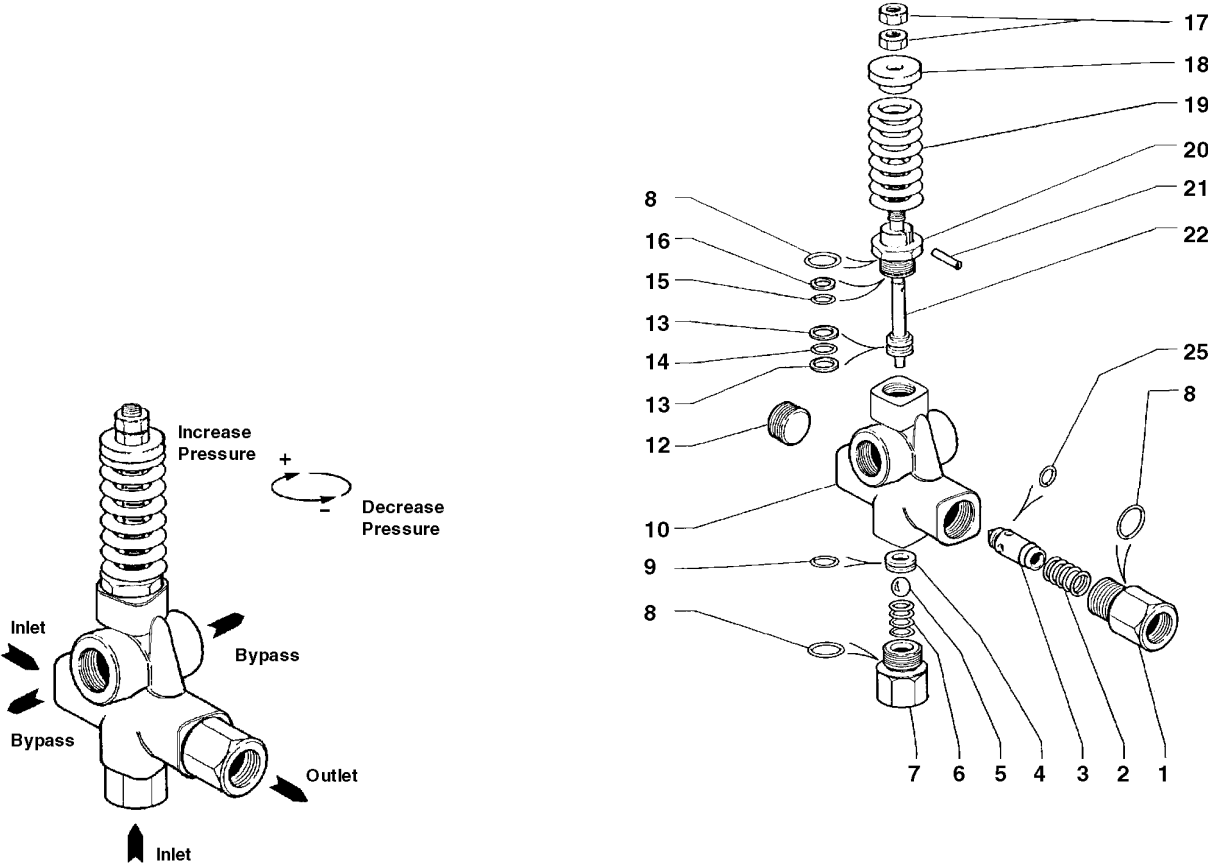
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VACASSY01306

Unloader Valve PULSAR4KHPMS

| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|--------------|--|
| 1 | 1 | 8048979-1 | NUT |
| 2 | 1 | 8048979-2 | KNOB |
| 3 | 1 | 8048979-3 | NUT for KNOB |
| 4 | 1 | 8048979-4 | SPRING RETAINER DISK |
| 5 | 1 | 8048979-5 | HIGH PRESSURE SPRING 275 BAR |
| 6 | 2 | 8048979-6 | NUT |
| 7 | 1 | 8048979-7 | NUT |
| 8 | 1 | 8048979-8 | O-RING 12,42X1,78 MM BLU / BLUE O-RING |
| 9 | 1 | 8048979-9 | STEM ASSEMBLY |
| | 1 | 8048979-9.1 | STEM (ONLY) |
| | 1 | 8048979-9.2 | NIPPLE |
| | 1 | 8048979-9.3 | O-RING 15,54X2,62 |
| | 1 | 8048979-9.4 | BACK-UP RING |
| | 1 | 8048979-9.5 | O-RING 7,6X2,62 |
| | 1 | 8048979-9.6 | O-RING 4,48X1,78 MM |
| | 1 | 8048979-9.7 | RETAINING FERRULE |
| | 1 | 8048979-9.8 | BACK-UP RING |
| | 1 | 8048979-9.9 | O-RING 10,78X2,62 MM |
| | 1 | 8048979-9.10 | BACK-UP RING |
| | 1 | 8048979-9.11 | NUT M6 |
| | 1 | 8048979-9.12 | PLUG |
| 10 | 1 | 8048979-10 | BODY, 3/8" |
| 11 | 1 | 8048979-11 | NUT, 3/8" |
| 12 | 1 | 8048979-12 | STAINLESS STEEL SEAT |
| 13 | 1 | 8048979-13 | PISTON |
| 14 | 1 | 8048979-14 | SPRING |
| 15 | 1 | 8048979-15 | BACK-UP RING |
| 16 | 1 | 8048979-16 | O-RING, 4,48X1,78 MM |
| 17 | 1 | 8048979-17 | WASHER |
| 18 | 2 | 8048979-18 | O-RING, 15,6X1,78 MM |
| 19 | 1 | 8048979-19 | NIPPLE |
| 20 | 1 | 8048979-20 | MEMBRANE SEAL |
| 21 | 1 | 8048979-21 | ELECTRIC PART |
| 22 | 1 | 8048979-22 | FORK |
| 24 | 1 | 8048979-24 | INJECTOR NIPPLE |
| 25 | 3 | 8048979-25 | NUT, 1/4" |
| 26 | 1 | 8048979-26 | INJECTOR BODY |
| 27 | 1 | 8048979-27 | SPRING |
| 28 | 1 | 8048979-28 | BALL |
| 29 | 1 | 8048979-29 | O-RING, 5,28X1,78 MM |
| 30 | 1 | 8048979-30 | NIPPLE, HOSE BARB |
| 31 | 1 | 8048979-31 | O-RING 4,48X1,78 MM |
| 32 | 1 | 8048979-32 | SEEGER RING |
| 33 | 1 | 8048979-33 | INJECTOR PISTON |
| 34 | 1 | 8048979-34 | HOSE BARB FERRULE |
| 35 | 1 | 8048979-35 | HOSE BARB NIPPLE |
| 36 | 1 | 8048979-36 | NOZZLE |
| 37 | 1 | 8048979-37 | NO-RETURN PISTON SPRING |
| 38 | 1 | 8048979-38 | NO-RETURN PISTON W/ O-RING |

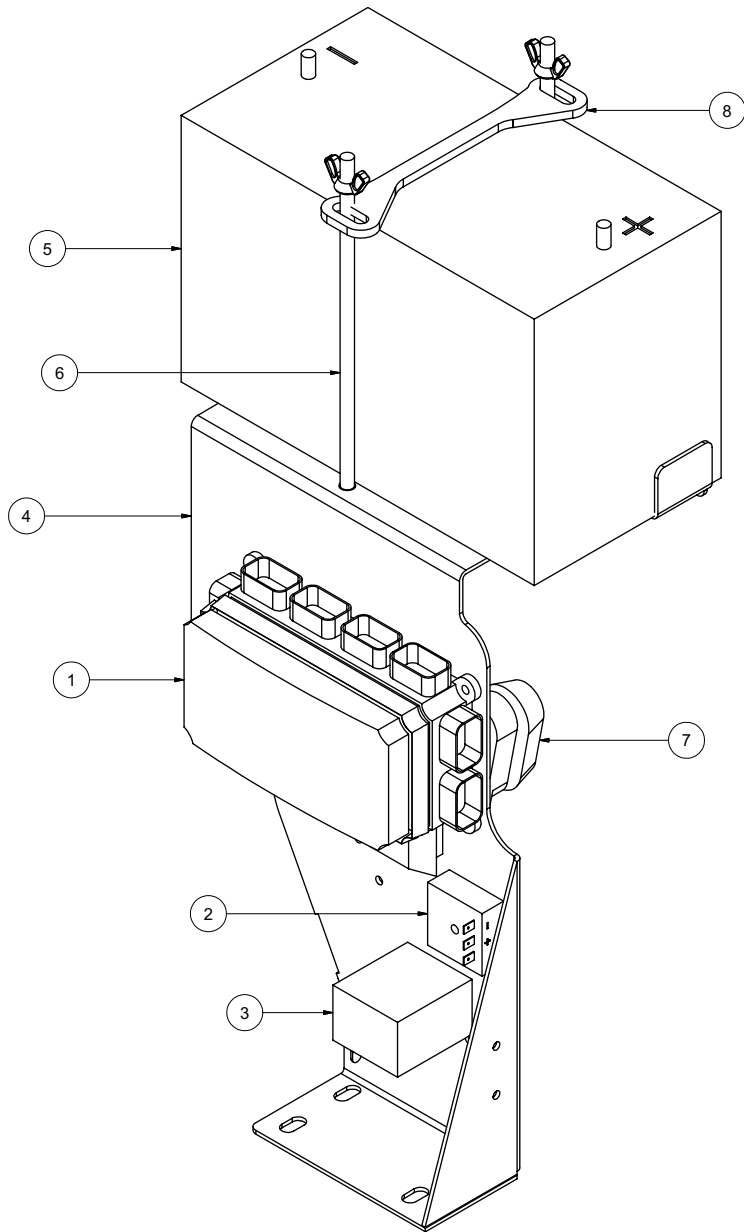
Unloader Valve YU2140



Unloader Valve YU2140

| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|------------|-----------------------|
| 1 | 1 | 8030341-1 | OUTLET CONNECTION |
| 2 | 1 | 8030341-2 | SPRING |
| 3 | 1 | 8030341-3 | CHECK VALVE |
| 4 | 1 | 8030341-4 | SEAT |
| 5 | 1 | 8030341-5 | SS BALL |
| 6 | 1 | 8030341-6 | SPRING |
| 7 | 1 | 8030341-7 | INLET CONNECTION |
| 8 | 2 | 8030341-8 | O-RING |
| 9 | 1 | 8030341-9 | O-RING |
| 10 | 1 | 8030341-10 | VALVE HOUSING |
| 12 | 1 | 8030341-12 | PLUG |
| 13 | 2 | 8030341-13 | BACK RING |
| 14 | 1 | 8030341-14 | O-RING |
| 15 | 1 | 8030341-15 | O-RING |
| 16 | 1 | 8030341-16 | BACK RING |
| 17 | 1 | 8030341-17 | NUT |
| 18 | 1 | 8030341-18 | SPRING GUIDE |
| 19 | 1 | 8030341-19 | SPRING-GREEN (YU2140) |
| 20 | 1 | 8030341-20 | PISTON HOUSING |
| 21 | 1 | 8030341-21 | PIN |
| 22 | 1 | 8030341-22 | PISTON |
| 25 | 1 | 8030341-25 | O-RING |

Electrical Control Bracket



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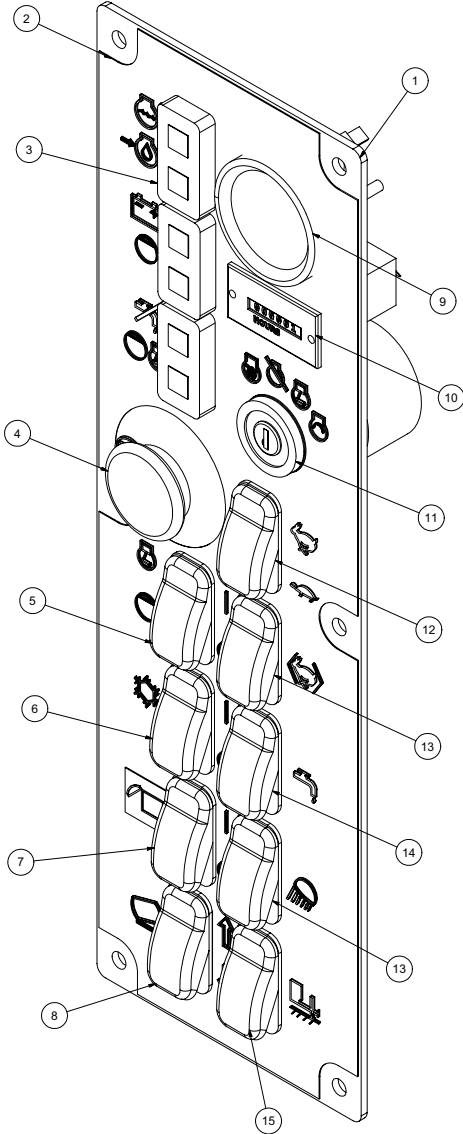
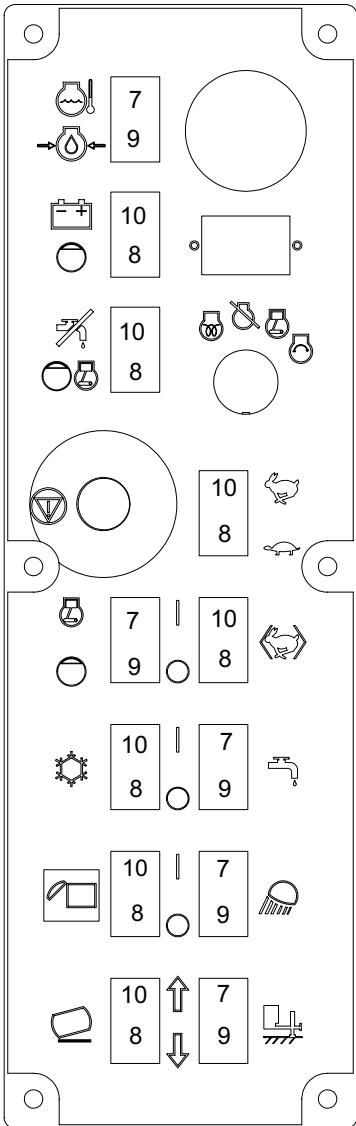
VACASSY550

Electrical Control Bracket

| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|----------|-----------------------------------|
| 1 | 1 | X000239 | BUSSMAN VEC |
| | 7 | X000205 | FUSE 5A |
| | 2 | X000206 | FUSE 10A |
| | 2 | X000207 | FUSE 20A |
| | 3 | X000237 | FUSE 30A |
| | 1 | X000236 | CIRCUIT BREAKER 20A |
| | 1 | X000210 | CIRCUIT BREAKER 30A |
| | 6 | X000209 | RELAY 35A/25A |
| | 5 | X000208 | DIODE 6A |
| * | 4 | U000040 | SCREW, HC 1/4" - 20 X .750 |
| * | 4 | U200020 | WASHER, FLAT 1/4" |
| * | 4 | U210020 | WASHER, LOCK 1/4" |
| * | 4 | U100020 | NUT, HEX 1/4"-20 |
| 2 | 1 | 8042282 | SWITCH, DELAY RELAY |
| * | 1 | U100020 | NUT, HEX 1/4"-20 |
| | 1 | U200020 | WASHER, FLAT 1/4" |
| | 1 | U210020 | WASHER, LOCK 1/4" |
| | 1 | U000080 | SCREW, HC 1/4"-20 X 1.25 ZP G5 |
| 3 | 1 | X000241 | RELAY TIMER 15 SEC SHUTDOWN |
| * | 1 | U100020 | NUT, HEX 1/4"-20 |
| | 1 | U200020 | WASHER, FLAT 1/4" |
| | 1 | U210020 | WASHER, LOCK 1/4" |
| | 1 | U000080 | SCREW, HC 1/4"-20 X 1.25 ZP G5 |
| 4 | 1 | 8043127 | CONTROL PANEL - HARNESS MTG PLATE |
| 5 | 1 | X400050 | BATTERY, 31-MHD WORKAHOLIC |
| 6 | 2 | 8043742 | BATTERY HOLD DOWN ROD ASSY |
| 7 | 1 | 8043800 | FUSE HOLDERAMG |
| | 1 | 8043801 | FUSE 250A AMG |
| * | 2 | U000060 | SCREW, HC 1/4"-20 X 1.00 |
| * | 2 | U200020 | WASHER, FLAT 1/4" |
| * | 2 | U210020 | WASHER, LOCK 1/4" |
| * | 2 | U100020 | NUT, HEX 1/4"-20 |
| 8 | 1 | 8050016 | BATTERY HOLD DOWN |
| * | 1 | X200005 | HARNESS VAC CONTROL |

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Control Panel

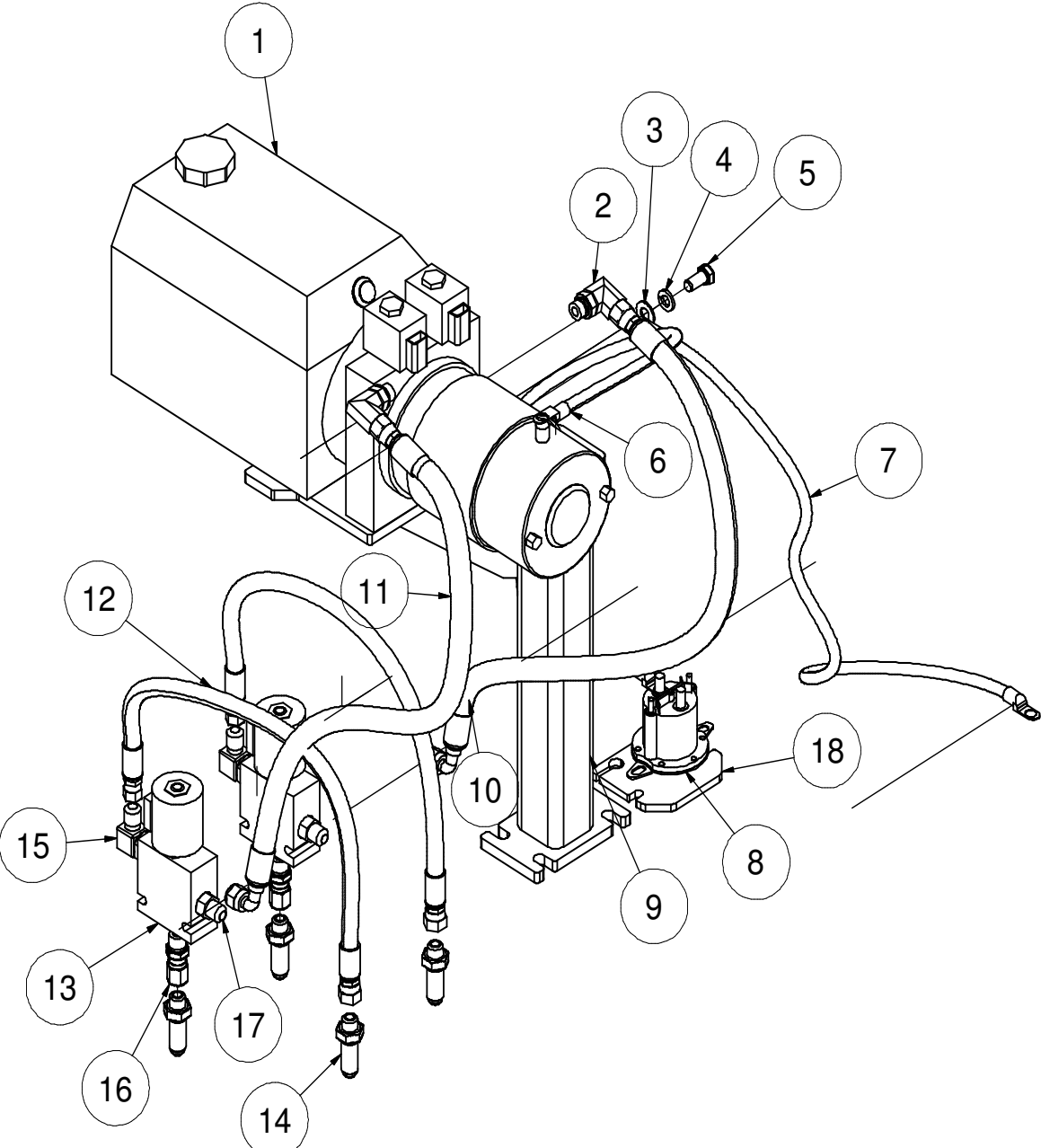


Control Panel

| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|----------|---|
| 1 | 1 | 8043128 | CONTROL PANEL - MAIN PLATE |
| 2 | 1 | J200031 | DECAL - CONTROL PANEL |
| 3 | 3 | X000260 | LIGHT LED DUAL PANEL |
| 4 | 1 | X000280 | E-STOP |
| 5 | 1 | X000273 | ROCKER SWITCH SPST (ON) NONE -OFF |
| 6 | 1 | X000272 | ROCKER SWITCH DPST (ON) NONE -ON |
| 7 | 1 | X000274 | ROCKER SWITCH DPST (ON) OFF (ON) |
| 8 | 1 | X000274 | ROCKER SWITCH DPDT (ON) OFF (ON) |
| 9 | 1 | X100001 | FUEL GAUGE |
| 10 | 1 | X000300 | HOUR METER |
| 11 | 1 | 8030458 | IGNITION SWITCH |
| 12 | 1 | X000271 | ROCKER SWITCH DPST ON - ON |
| 13 | 2 | X000270 | ROCKER SWITCH SPST ON -OFF |
| 14 | 1 | X000270 | ROCKER SWITCH SPST ON -OFF |
| | 1 | X000271 | ROCKER SWITCH DPST ON -ON (AIR-WATER UNITS) |
| 15 | 1 | X000290 | ROCKER SWITCH PLUG |
| | 1 | X000274 | ROCKER SWITCH DPDT (HYD. JACK OPTION) |
| * | 1 | 8030829 | KEY, IGNITION - KUBOTA |

* NOT SHOWN

Hydraulic Pump Assembly



101512-E

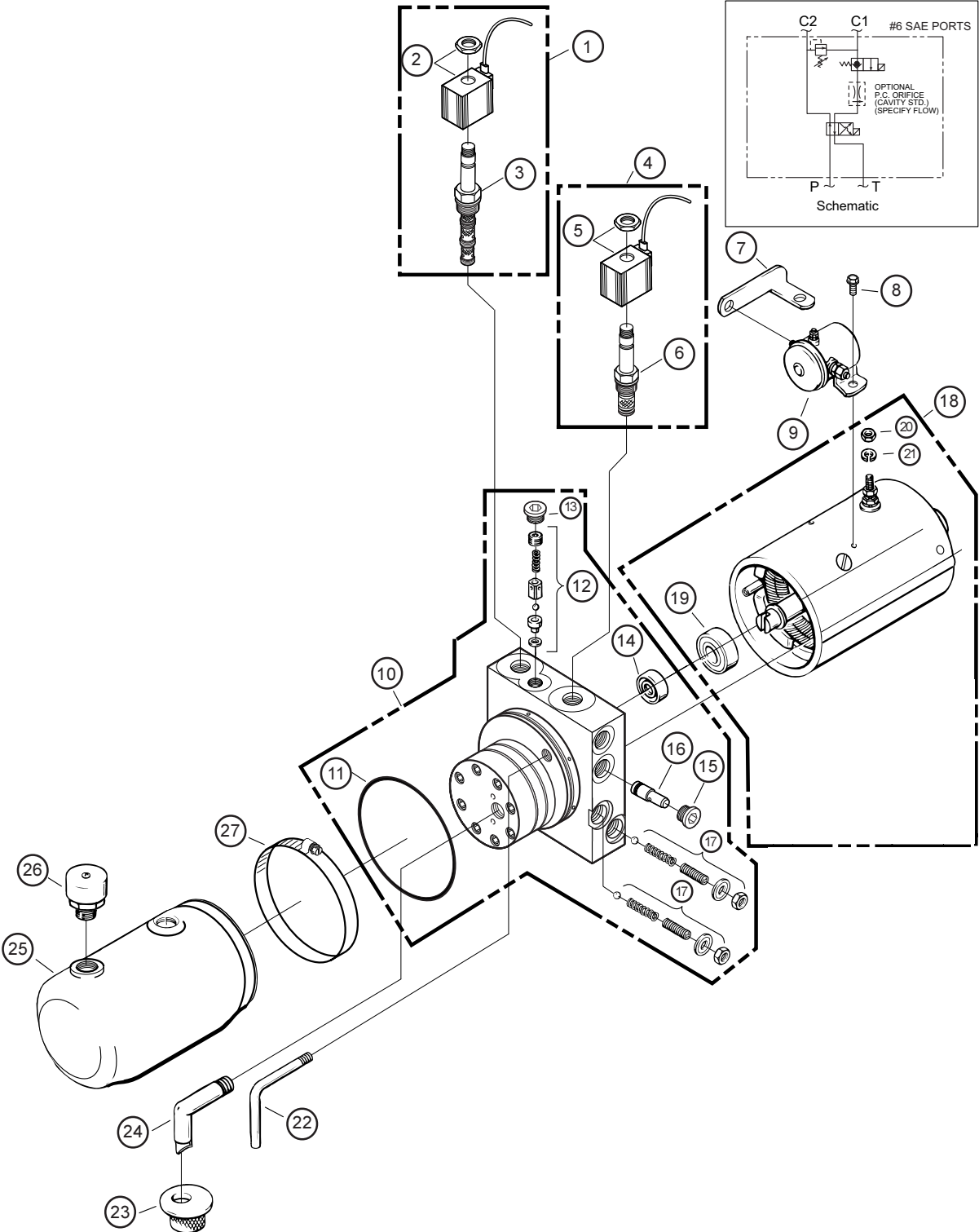
VACASSY251

Hydraulic Pump Assembly

| ITEM | QTY | PART | DESCRIPTION |
|------|-----|---------|--|
| 1 | 1 | 8046300 | PUMP, HYD 12V 4.5QT |
| 2 | 2 | T401250 | ELBOW, 90 3/8" MB-MJ |
| 3 | 1 | U200600 | WASHER, FLAT 3/8" |
| 4 | 1 | U210060 | WASHER, LOCK 3/8" |
| 5 | 1 | U200400 | SCREW, HC 3/8"-16 X .750 |
| 6 | 1 | X300233 | CABLE, BATTERY HOT 1GA 26" |
| | 2 | X300251 | LUG, CABLE 1GA 3/8" HOLE |
| 7 | 1 | X300224 | CABLE, BATTERY GROUND 1GA 21" |
| | 2 | X300251 | LUG, CABLE 1GA 3/8" HOLE |
| 8 | 1 | 8046258 | SWITCH HYD PUMP 12V RELOCATE |
| | 2 | U000040 | SCREW, HC 1/4"-20 X .75 ZP G5 |
| | 2 | U200020 | WASHER, FLAT 1/4" ZP |
| | 2 | U210020 | WASHER, LOCK 1/4" ZP |
| | 2 | U100020 | NUT, HEX 1/4"-20 |
| 9 | 1 | 8043499 | BRACKET 36/49 12V HYD PUMP |
| | 1 | 8047283 | BRACKET 99AW HYD PUMP |
| * | 2 | U000460 | SCREW, HC 3/8"-16 X 1.50 ZP G5 |
| * | 2 | U000480 | SCREW, HC 3/8"-16 X 1.75 ZP G5 |
| * | 5 | U200060 | WASHER, FLAT 3/8" |
| * | 5 | U210060 | WASHER, LOCK 3/8" |
| * | 4 | U100060 | NUT, HEX 3/8"-16 |
| * | 1 | U000441 | SCREW, HC 3/8"-16 X 1.25 ZP G8 |
| 10 | 1 | 8046685 | HOSE ASSY VAC 6-25" ST-90 (500LE/LEHD) |
| | 1 | 8046686 | HOSE ASSY VAC 6-22" ST-90 (800LE/LEHD) |
| | 1 | 8040973 | HOSE ASSY VAC 6-20" ST-90 (73/99) |
| 11 | 1 | 8046687 | HOSE ASSY VAC 6-23" ST-90 (500LE/LEHD) |
| | 1 | 8040973 | HOSE ASSY VAC 6-20" ST-90 (800LE/LEHD) |
| | 1 | 8040973 | HOSE ASSY VAC 6-20" ST-90 (73/99) |
| 12 | 2 | 8040971 | HOSE ASSY VAC 4-19" ST-ST6FJ (LE/LEHD) |
| 13 | 2 | 8041788 | VALVE, SOLENOID 3-WAY W/ INT C4K |
| 14 | 4 | T400391 | BULKHEAD 3/8" MJ - 3/8" MJ |
| 15 | 2 | T401250 | ELBOW, 90 3/8" MB - 3/8" MJ |
| 16 | 2 | T400036 | UNION, 3/8" MB - 3/8" FJ |
| 17 | 2 | T400037 | UNION, 3/8" MB - 3/8" MJ |
| 18 | 1 | 8046127 | BRACKET PUMP SOLENOID |

* NOT SHOWN

Hydraulic Pump w/ Bracket



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VACASSY250

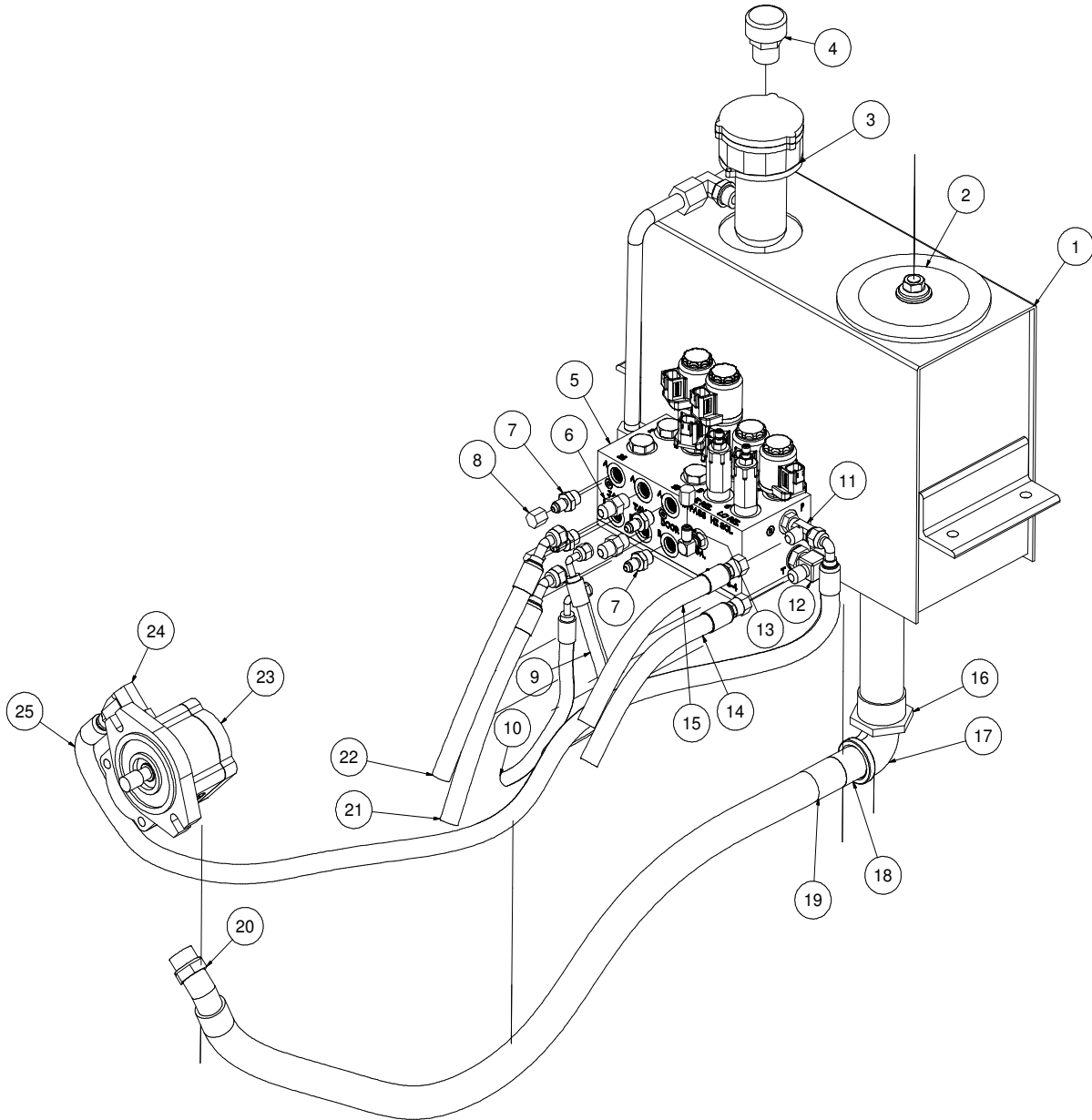
Hydraulic Pump w/ Bracket

| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|------------|---|
| | 1 | 8046300 | PUMP, HYD 12V VAC 4.5QT |
| | 2 | U000420 | SCREW, HC 3/8"-16 X 1" |
| | 2 | U210060 | WASHER, LOCK 3/8" |
| | 2 | U200600 | WASHER, FLAT 3/8" |
| | 2 | T400037 | UNION 6MB - 6MJR |
| | 2 | 8040973 | HOSE ASSY VAC 6-20 ST-90 |
| | 2 | T400391 | BULKHEAD 6MP - 6MP |
| 1 | 1 | 8046300-14 | VALVE, 4-WAY - 2 POSITION |
| 2 | 1 | 8046300-15 | COIL, 10 VDC GROUNDED W/ DEUTSCH CONN |
| 3 | 1 | 8046300-16 | CARTRIDGE, 4-WAY 2 POSITION |
| 4 | 1 | 8046300-17 | VALVE, 2-WAY 2 POSITION (12V) GROUNDED |
| 5 | 1 | 8046300-18 | COIL, 10VDC 2-WAY 2 POS GRND W/DEUTSCH CONN |
| 6 | 1 | 8046300-19 | VALVE, 12V HYD 2-WAY 2 POSITION |
| 7 | 1 | 8046300-23 | PUMP ASSEMBLY |
| 8 | 1 | 8046300-24 | O-RING INDUST 3 5/8" X 3 7/8" X 1/8" |
| 9 | 1 | 8046300-25 | PARTS KIT - VALVE ASSY, POPPET/BALL CHECK |
| 10 | 1 | 8046300-26 | PLUG |
| 11 | 1 | 8046300-27 | SEAL |
| 12 | 1 | 8046300-28 | PLUG, #8 SAE |
| 13 | 2 | 8046300-30 | PARTS KIT, RELIEF VALVE |
| 14 | 1 | 8046300-31 | MOTOR, ELECTRIC 12VDC |
| 15 | 1 | 8046300-32 | BEARING, BASE MOTOR |
| 16 | 1 | 8046300-33 | NUT, HEX 5/16 -24 |
| 17 | 1 | 8046300-34 | WASHER, LOCK 5/16" |
| | 2 | 8046300-38 | SCREW, HEX HEAD 1/4"-20 X 1 3/8" |
| | 1 | 8046300-41 | PLUG, 3/8"NPTF |
| 18 | 1 | 8046300-42 | TUBE, RETURN (1/8") |
| 19 | 1 | 8046300-43 | SCREEN, FILTER (SUCTION) |
| 20 | 1 | 8046300-44 | TUBE, FILTER SUCTION 3/8"NPT 90 DEG |
| 21 | 1 | 8046300-45 | 6QT RESEVOIR POLY |
| | * | 8040486-45 | 3QT RESEVOIR POLY |
| | * | 8046300-48 | 4.5QT RESEVOIR POLY |
| 22 | 1 | 8046300-46 | PLUG, VENT 3/8"NPT |
| 23 | 1 | 8046300-47 | CLAMP, HOSE WORM GEAR (IN SERIES) |
| 24 | 1 | 8046258 | SWITCH HYD PUMP 12V |
| | | | |
| * | 1 | X200002 | HYDRAULIC PUMP WIRE HARNESS |
| * | 1 | 8043499 | HYDRAULIC PUMP MOUNT |
| | | 8044297 | HYDRAULIC PUMP MOUNT (REVERSE FLOW) |
| | | 8045336 | HYDRAULIC PUMP MOUNT (412 BLOWER) |

* NOT SHOWN

Boom Hydraulics Assembly

67/99HP



100413-E

VACASSY01908

Boom Hydraulics Assembly

67/99HP

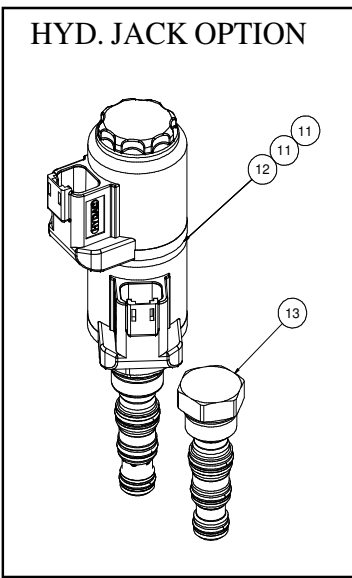
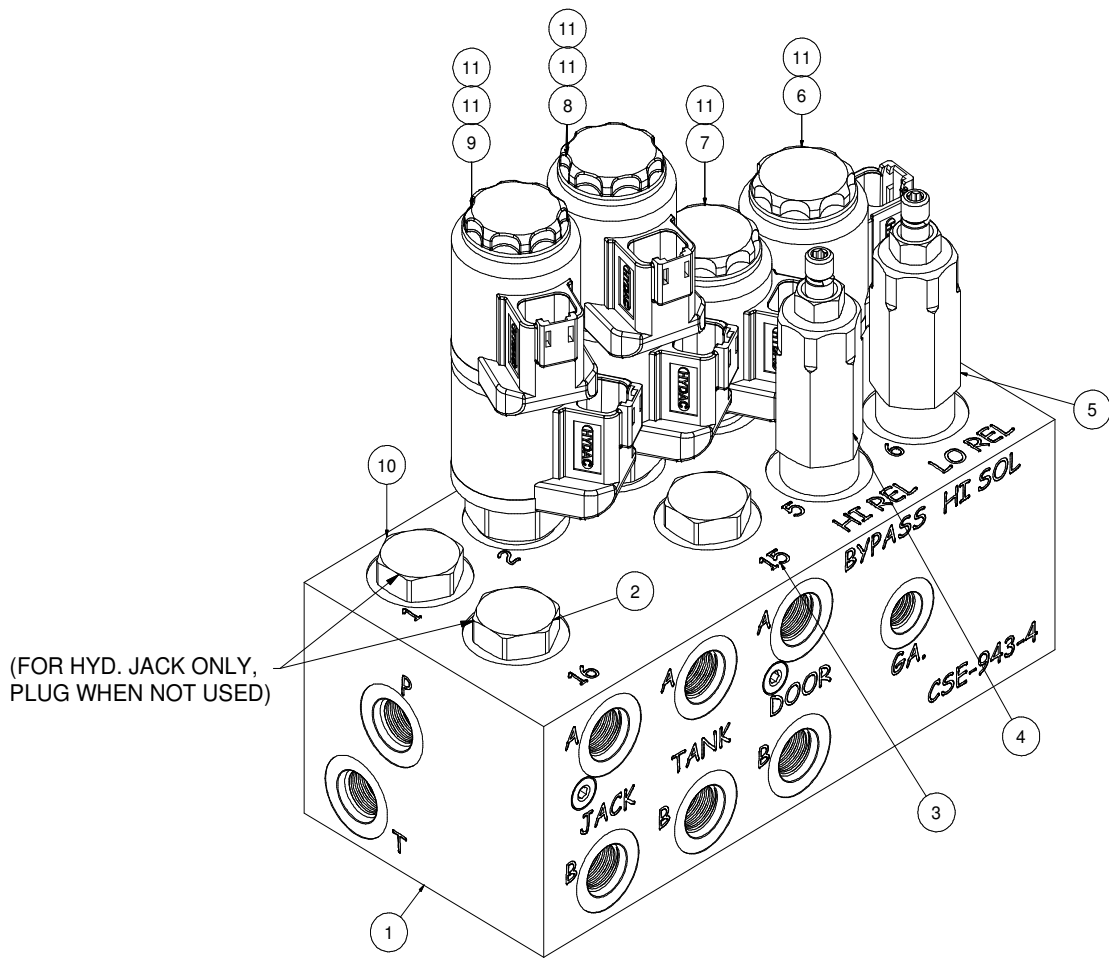
| ITEM | QTY | PART | DESCRIPTION |
|------|-----|------------|--------------------------------------|
| 1 | 1 | 8048690-01 | TANK, HYD. |
| 2 | 1 | 8047330-15 | CLEAN-OUT COVER |
| 3 | 1 | 8047330-04 | FILTER, COMPLETE (CROSS 2) |
| 4 | 1 | 8047330-14 | CAP, PLASTIC GRAY |
| 5 | 1 | 8048690-02 | MANIFOLD ASSY BOOM LWR (CROSS 3) |
| 6 | 2 | T400037 | UNION, 6MB - 6MJ |
| 7 | 4 | T400550 | REDUCER, 3/8"MB - 1/4"MJ |
| 8 | 3 | T405200 | CAP, 1/4" FEM. JIC, HEX HEAD |
| 9 | 1 | 8049286 | HOSE ASSY VAC 4-132" ST-90 (V1200HD) |
| 10 | 1 | 8049286 | HOSE ASSY VAC 4-132" ST-90 (V1200HD) |
| 11 | 1 | T402148 | TEE, 6MB-6MJ-6MJ |
| 12 | 1 | T401250 | ELBOW 90, 3/8"MB - 3/8"MJ |
| 13 | 1 | T401230 | ELBOW 90, 1/4"MB - 1/4"MJ |
| 14 | 1 | 8049283 | HOSE ASSY VAC 6-204 ST-90 (V1200HD) |
| 15 | 1 | 8049283 | HOSE ASSY VAC 6-204 ST-90 (V1200HD) |
| 16 | 1 | 8047330-06 | STRAINER, SUCTION |
| 17 | 1 | T420080 | ELBOW 90, 1"MP-1"FP BLACK GALV. |
| 18 | 1 | 8043963 | UNION, 1"MP-1"MBARB |
| 19 | 1 | 8049285 | HOSE VAC PUSH 1"-45"LG (V1200HD) |
| 20 | 1 | 8043964 | ELBOW 45, 16HB-12MB |
| 21 | 1 | 8049287 | HOSE ASSY VAC 6-50" ST-90 (V1200HD) |
| 22 | 1 | 8049287 | HOSE ASSY VAC 6-50" ST-90 (V1200HD) |
| 23 | 1 | 8047333 | PUMP, HYD BOOM 67/99HP (CROSS2) |
| * | 1 | 8047333-10 | SEAL KIT, PUMP HYD. 67/99HP (CROSS2) |
| 24 | 1 | T401290 | ELBOW, 90 5/8"MB - 3/8"MJ |
| 25 | 1 | 8049284 | HOSE ASSY VAC 6-65" ST-90 (V1200HD) |
| * | 1 | T720115 | GAUGE, SIGHT HYD. OIL |

* NOT SHOWN

100413-E

VACASSY01908

Base Manifold Assembly



043013-E

VACASSY01907

Base Manifold Assembly

| ITEM | QTY | PART NO. | DESCRIPTION | PORT # |
|------|-----|------------|--------------------------------------|---------|
| 1 | 1 | 8048690-03 | MANIFOLD BLOCK (ONLY) | - |
| 2 | 1 | 8048690-10 | PLUG, SAE | 16 |
| 3 | 1 | 8048690-08 | VALVE, CARTRIDGE DBL PO CHECK | 15 |
| 4 | 1 | 8047330-12 | VALVE, CARTRIDGE RELIEF HI-PRESSURE | 5 |
| 5 | 1 | 8047330-13 | VALVE, CARTRIDGE RELIEF LO-PRESSURE | 6 |
| 6 | 1 | 8047330-08 | VALVE, CARTRIDGE 2 POS - N.O. | 4 |
| 7 | 1 | 8047330-08 | VALVE, CARTRIDGE 2 POS - N.O. | 7 |
| 8 | 1 | 8048690-09 | VALVE, CARTRIDGE 3 POS - OPEN CTR | 3 |
| 9 | 1 | 8047330-09 | VALVE, CARTRIDGE 3 POS - BLOCKED CTR | 2 |
| 10 | 1 | 8047330-10 | PLUG, CAVITY | 1 |
| 11 | 6 | 8047330-11 | COIL, 12V | 2,3,4,7 |

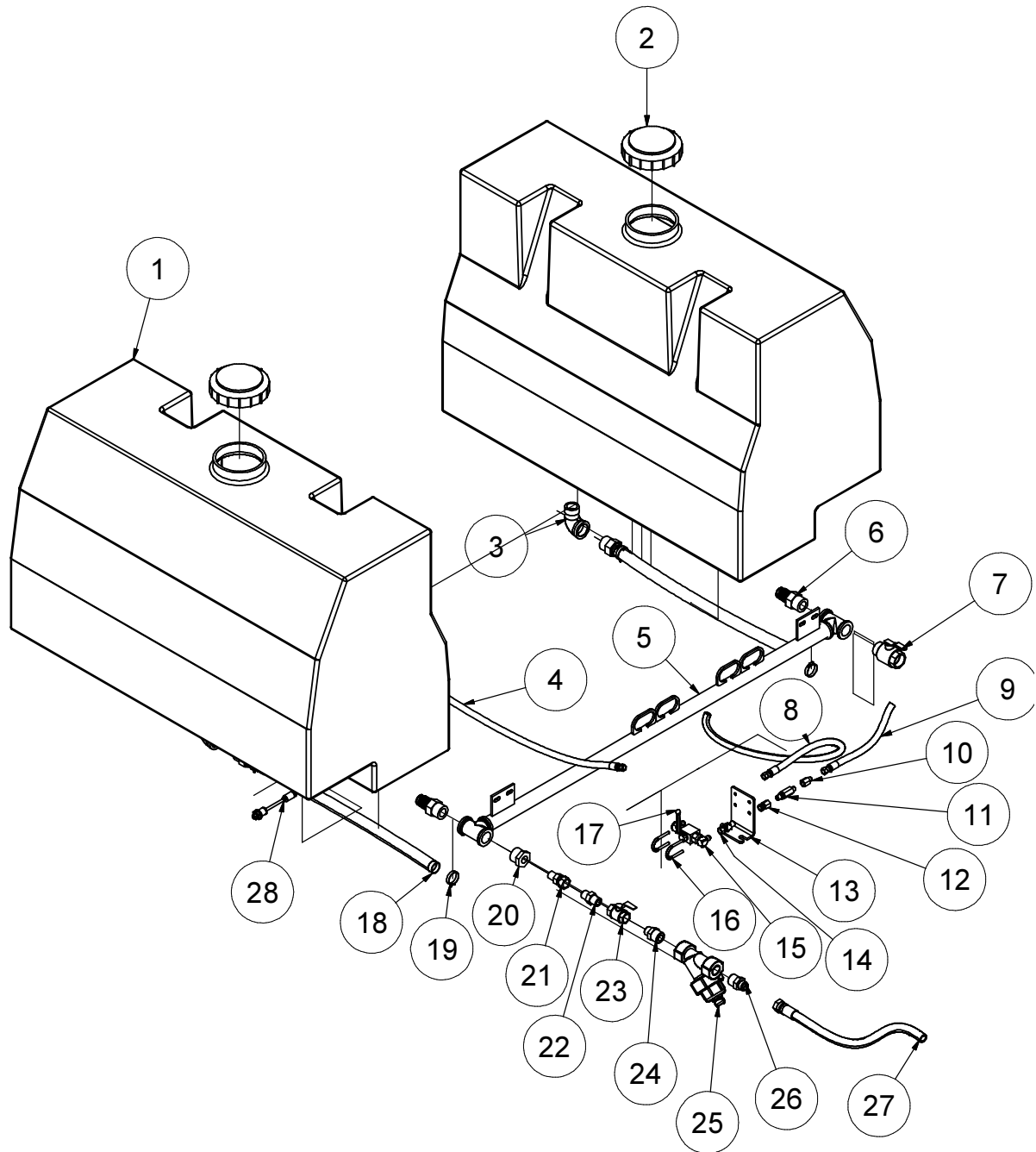
HYDRAULIC JACK OPTION

Note: Remove plugs from port #s 1 and 16. Replace with valves listed below:

| | | | | |
|----|---|------------|-----------------------------------|----|
| 11 | 2 | 8047330-11 | COIL, 12V | 1 |
| 12 | 1 | 8048690-09 | VALVE, CARTRIDGE 3 POS - OPEN CTR | 1 |
| 13 | 1 | 8048690-08 | VALVE, CARTRIDGE DBL PO CHECK | 16 |

Water Tank Assembly

125 Gallon Saddle Tanks



091814-E

VACASSY603

Water Tank Assembly

125 Gallon Saddle Tanks

| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|-----------|---|
| 1 | 1 | 8046162 | TANK, WATER 125 GAL (CURB SIDE) |
| | 1 | 8045093 | BULKHEAD 1 1/4" BOTTOM FEED |
| | 1 | 8046162 | TANK, WATER 125 GAL (STREET SIDE) |
| | 1 | 8045093 | BULKHEAD 1 1/4" BOTTOM FEED |
| 2 | 2 | 8041119 | WATER TANK LED |
| 3 | 2 | 8041311 | ELBOW, STREET 1 1/4" |
| 4 | 1 | 8041477 | HOSE REEL TO BALL VALVE HOSE 6-140" ST-ST |
| 5 | 1 | 8045810 | BRACKET WATER TANK LE HEADER |
| 6 | 4 | 8041312 | FITTING, HOSE BARB 1 1/4" |
| 7 | 1 | 8045813 | VALVE, BALL 1 1/4" M X F BRASS |
| 8 | 1 | 8043949 | BALL VALVE TO TANK CLEANOUT 6 - 215" ST-ST |
| 9 | 1 | 8043664 | BALL VALVE TO WATER PUMP 6 - 36" ST-90 |
| 10 | 1 | 8031126 | UNION, 4FP - 6MJ |
| 11 | 1 | 8030923 | FILTER, WATER HIGH PRESSURE |
| 12 | 1 | 8031125 | REDUCER, 1/4FP - 3/8FJ |
| 13 | 1 | 8040670 | BALL VALVE BRACKET |
| 14 | 1 | T402153 | TEE, 6MJ - 6MJ - 6FJ |
| 15 | 2 | T401102 | ELBOW, 6MJ - 6MP |
| 16 | 2 | U010017 | U-BOLT .250 - 20 |
| | 4 | U200020 | WASHER, FLAT 1/4" |
| | 4 | U120100 | NUT, LOCK 1/4"-20 |
| 17 | 1 | 8030351 | BALL VALVE 3/8" |
| 18 | 2 | 8041523 | HOSE, VAC CLEAR VINYL 1 1/4" - 24 |
| 19 | 4 | 8040677 | CLAMP, HOSE 1 1/4" - 2 1/8" HD |
| 20 | 1 | T403100 | REDUCER, 20MP - 12FP |
| 21 | 1 | T400101 | UNION, 12FJ - 12MP |
| 22 | 1 | T400100 | UNION, 12MJ - 12MP |
| 23 | 1 | T000185 | BALL VALVE, BRASS 3/4"FP |
| 24 | 1 | T404060 | REDUCER, 16MP - 12MP |
| 25 | 1 | 8040186 | STRAINER |
| | 1 | 8040186-1 | END CAP |
| | 1 | 8040186-2 | GASKET |
| | 1 | 8040186-3 | STRAINER PLUG |
| | 1 | 8040186-4 | FKM O-RING |
| | 1 | 8040186-5 | STRAINER MESH SCREEN 80 |
| | 1 | 8040186-6 | Y-BODY |
| | 1 | 8040186-7 | EPDM O-RING |
| 26 | 1 | T400450 | REDUCER, 12MJ - 16MP |
| 27 | 1 | 8041058 | HOSE VAC PUSH 12-36" |
| | 2 | 8030525 | FITTING HOSE 12FJ PUSHLOCK |
| 28 | 1 | 8090896 | SWITCH, WATER TANK (HORIZ) |
| * | 1 | 8045799 | WATER TANK FRAMES 125 STREETSIDE |
| * | 1 | 8045809 | WATER TANK FRAMES 125 CURB SIDE |
| * | 1 | 8049400 | HOSE VAC PUSH 8-38 1/2"LG (ANTIFREEZE HOSE) |
| * | 2 | 8030524 | FITTING, PUSH LOCK #8 |
| * | 1 | 8030518 | ELBOW, 45 1/2" MJ BULKHEAD |

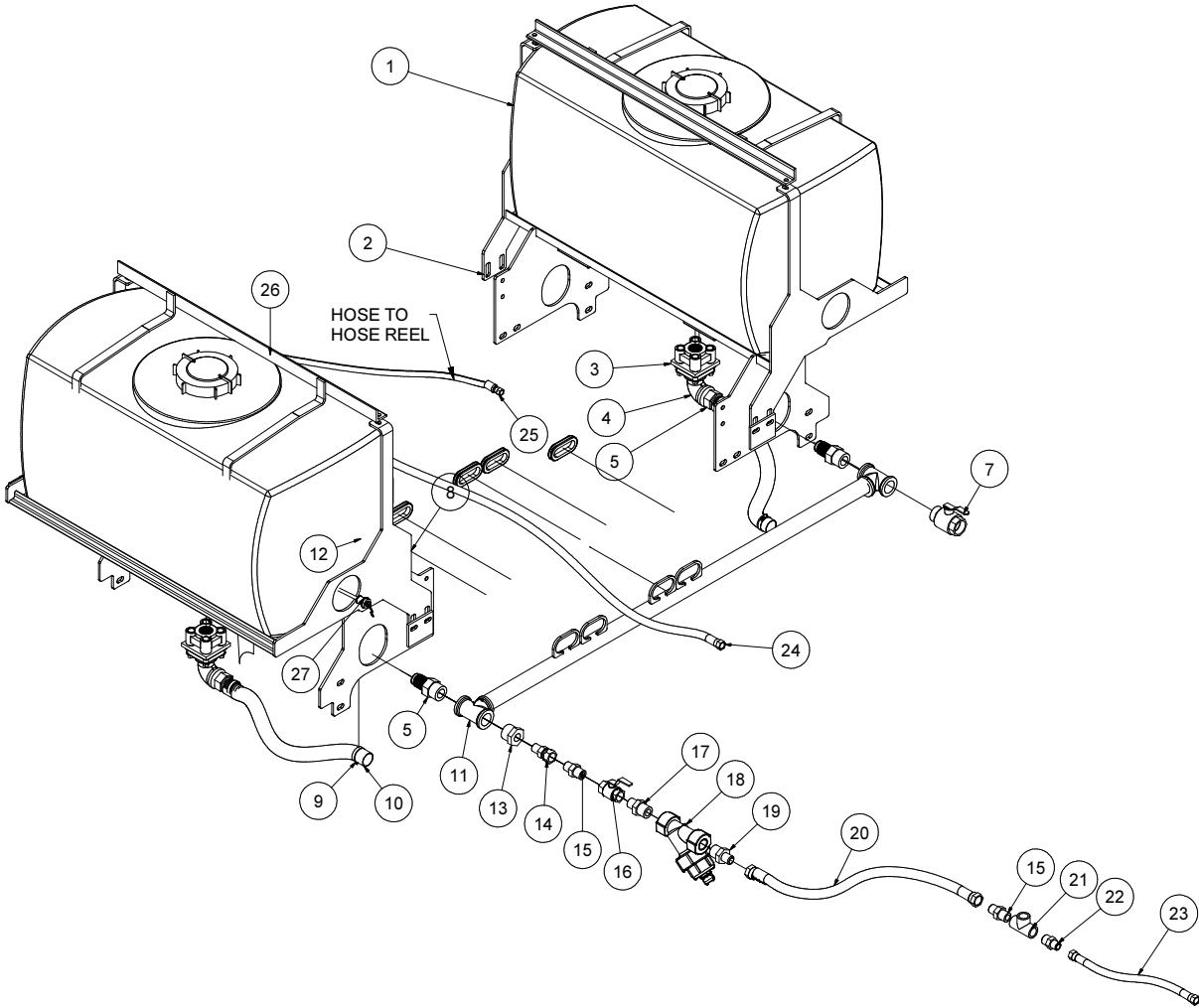
* NOT SHOWN

091814-E

VACASSY603

Water Tank Assembly

50Gallon Saddle Tanks LE



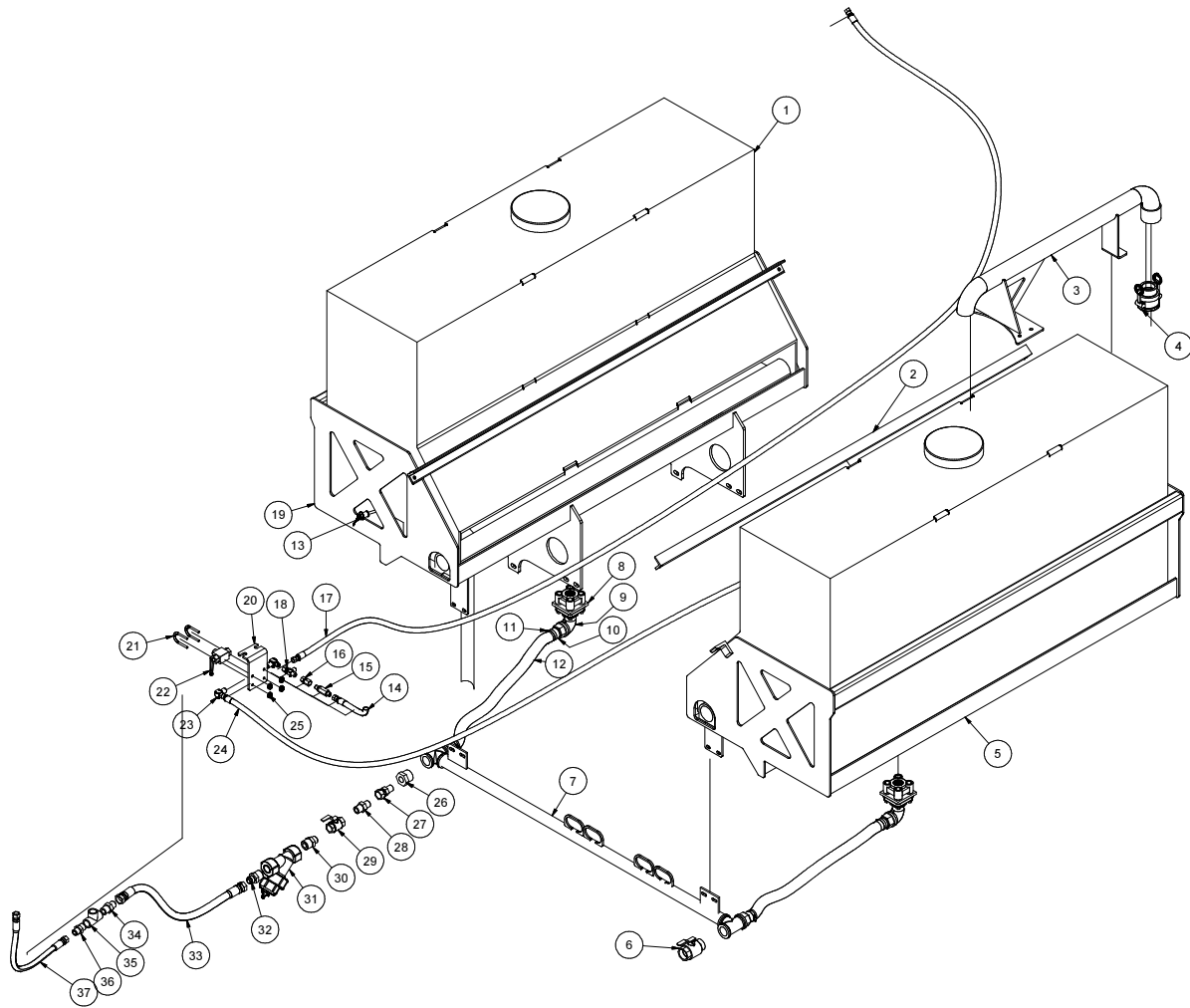
Water Tank Assembly

50Gallon Saddle Tanks 31LE

| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|-----------|-------------------------------------|
| 1 | 2 | 8034151 | 50 GALLON WATER TANK |
| 2 | 1 | 8045815 | WATER TANK FRAME (STREET) |
| | 1 | 8046631 | WATER TANK HOLD DOWN |
| 3 | 2 | 8045093 | BULKHEAD, 1 1/4" BOTTOM DRAIN BANJO |
| 4 | 2 | 8041311 | ELBOW, 90 1 1/4" STREET GALVAN |
| 5 | 4 | 8041312 | FITTING, 1 1/4"MP - 1 1/4"HB |
| 6 | 2 | T405065 | PLUG #12MP |
| 7 | 1 | 8045813 | VALVE, BALL 1 1/4" M x F BRASS |
| 8 | 1 | 8045816 | WATER TANK FRAME (CURB) |
| | 1 | 8046631 | WATER TANK HOLD DOWN |
| 9 | 4 | 8040677 | CLAMP, HOSE 1 1/4" - 2 1/8" HD |
| 10 | 2 | 8041523 | HOSE VAC CLEAR VINYL 1 1/4" - 24" |
| 11 | 1 | 8045810 | WATER HEADER LE |
| 12 | 5 | 8042812 | GROMMET 2" ID X 3" OD X 1 1/4"WOG |
| 13 | 1 | T403100 | REDUCER, 1 1/4"MP - 3/4"FP |
| 14 | 1 | T400101 | UNION, 3/4"FJ - 3/4"MP |
| 15 | 2 | T400100 | UNION, 3/4"MP - 3/4"MJ |
| 16 | 1 | T000185 | VALVE, BALL 3/4" FNPT BRASS |
| 17 | 1 | T404060 | REDUCER, 1"MP - 3/4"MP |
| 18 | 1 | 8040186 | STRAINER, Y 1" BANJO |
| | 1 | 8040186-1 | END CAP |
| | 1 | 8040186-2 | GASKET |
| | 1 | 8040186-3 | STRAINER PLUG |
| | 1 | 8040186-4 | FKM-O-RING |
| | 1 | 8040186-5 | STRAINER MESH SCREEN 80 |
| | 1 | 8040186-6 | Y-BODY |
| | 1 | 8040186-7 | EPMD O-RING |
| 19 | 1 | T400450 | REDUCER 1"MP - 3/4"MJ |
| 20 | 1 | 8044638 | HOSE VAC PUSH 12 - 40" |
| 21 | 1 | T402160 | TEE, 3/4"FP - 3/4"FP - 3/4"FP |
| 22 | 1 | T400080 | REDUCER, 12MP - 8MJ |
| 23 | 1 | 8041322 | HOSE VAC PUSH 8 - 20" |
| 24 | 1 | 8041059 | HOSE VAC PUSH 8 - 66" |
| 25 | 1 | 8041476 | HOSE ASSY VAC 6 - 150" ST-90 |
| 26 | 1 | 8030518 | ELBOW, 45 1/2" MJ BULKHEAD |
| 27 | 1 | 8090896 | SWITCH, WATER TANK HORIZ |

Water Tank Assembly

205 Gallon Saddle Tanks



091814-E

VACASSY612

Water Tank Assembly

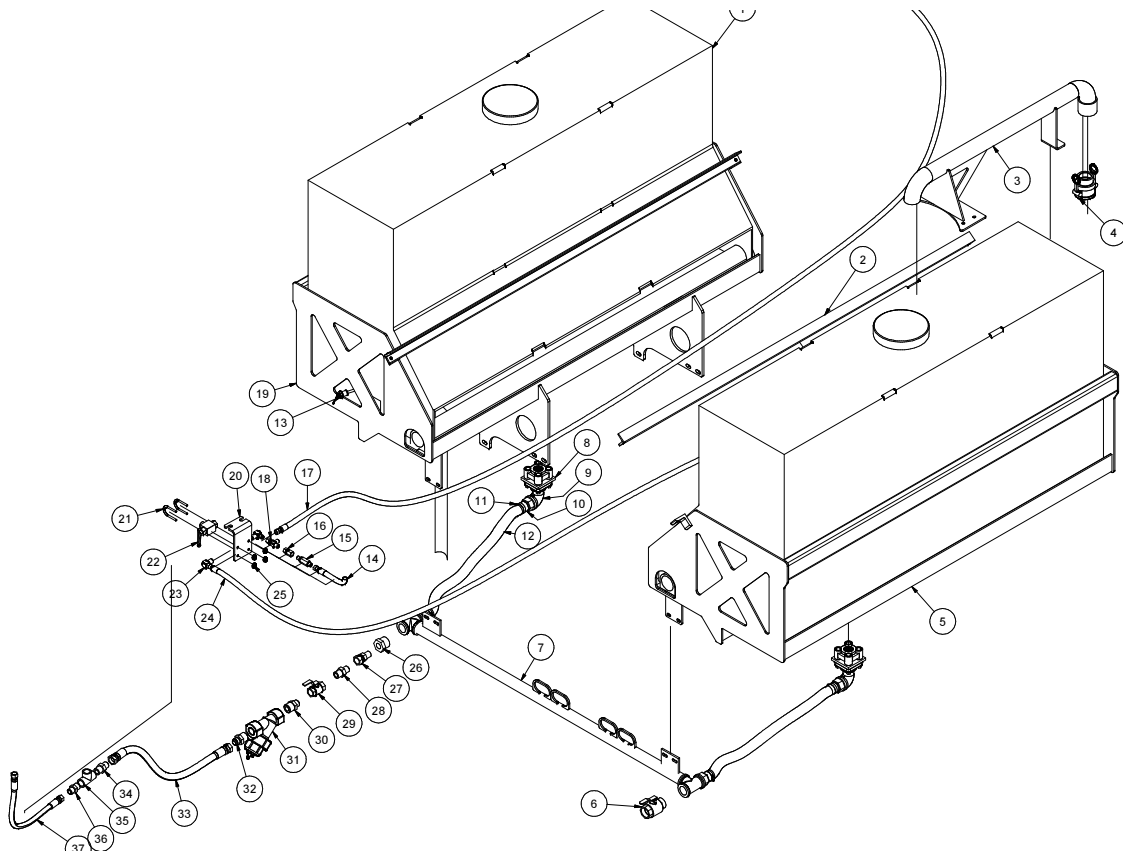
205 Gallon Saddle Tanks

| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|-----------|--|
| 1 | 2 | 8043805 | TANK, WATER 205 GAL. POLY. |
| | 1 | 8030518 | 1/2" BULKHEAD 45DEG |
| | 2 | 8043805-3 | TANK WATER 205, LID ONLY |
| 2 | 2 | 8044390 | WATER TANK ANGLE HOLDER |
| 3 | 1 | 8046528 | QUICKFILL 205GAL SADDLE |
| 4 | 1 | 8031219 | COUPLING, 2" ALUM MP X FCAMLOCK |
| 5 | 1 | 8046177 | WATER TANK BRACKET 205 (STREETSIDE) |
| 6 | 1 | 8045813 | VALVE, BALL 1 1/4" MxF BRASS |
| 7 | 1 | 8045810 | WATER HEADER LE |
| 8 | 2 | 8045093 | BULKHEAD 1 1/4" BOTTOM DRAIN BANJO |
| 9 | 2 | T420120 | STREET ELBOW 90, 1 1/4" |
| 10 | 4 | 8044266 | FITTING, HOSE BARB 20HB - 20MP |
| 11 | 4 | 8040677 | CLAMP, HOSE 1 1/4" - 2 1/8" HD |
| 12 | 2 | 8041523 | HOSE VAC CLEAR VINYL 1 1/4" - 24" |
| 13 | 1 | 8090896 | SWITCH, WATER TANK HORIZ |
| 14 | 1 | 8043664 | BALL VALVE TO WATER PUMP #6 - 36" ST-90 |
| 15 | 1 | 8030923 | FILTER, WATER HIGH PRESSURE |
| 16 | 1 | 8031125 | UNION, 4FP - 6FJ |
| 17 | 1 | 8041477 | HOSE REEL TO BALL VALVE #6 - 140" ST-ST |
| 18 | 1 | T402153 | TEE, 6MJ - 6MJ - 6FJ |
| 19 | 1 | 8046178 | WATER TANK BRACKET 205 (CURB SIDE) |
| 20 | 1 | 8040670 | BALL VALVE BRACKET |
| 21 | 2 | U010017 | 1 1/2" CLAMP HOOK 1/4-20 THD |
| 22 | 1 | 8030351 | STEEL BALL VALVE, 3/8NPT |
| 23 | 2 | T401102 | ELBOW, 6MJ - 6MP |
| 24 | 1 | 8043949 | BALL VALVE TO TANK CLEANOUT HOSE #6-215" ST-90 |
| 25 | 4 | U120142 | NUT, LOCK FLANGED .250 - 20 G2 |
| | 4 | U200020 | WASHER, FLAT 1/4" |
| 26 | 1 | T403100 | REDUCER, 20MP - 12FP |
| 27 | 1 | T400101 | UNION, 12FJ - 12MP |
| 28 | 1 | T400100 | UNION, 12MJ - 12MP |
| 29 | 1 | T000185 | BALL VALVE, BRASS 3/4" FP |
| 30 | 1 | T404060 | REDUCER, 16MP - 12MP |
| 31 | 1 | 8040186 | STRAINER |
| | 1 | 8040186-1 | END CAP |
| | 1 | 8040186-2 | GASKET |
| | 1 | 8040186-3 | STRAINER PLUG |
| | 1 | 8040186-4 | FKM O-RING |
| | 1 | 8040186-5 | STRAINER MESH SCREEN 80 |
| | 1 | 8040186-6 | Y-BODY |
| 32 | 1 | 8040186-7 | EPMD O-RING |
| 32 | 1 | T400450 | REDUCER, 12MJ - 16MP |
| 33 | 1 | 8041058 | HOSE VAC PUSH 12 - 36" |
| 34 | 1 | T400100 | UNION, 12MP - 12MJ |
| 35 | 1 | T402160 | TEE, 3/4FP - 3/4FP - 3/4FP |
| 36 | 1 | T400080 | UNION, 12MP - 8MJ |
| 37 | 1 | 8041322 | HOSE VAC PUSH 8 - 20" |

* NOT SHOWN

Water Tank Assembly

205 Gallon Saddle Tanks



091814-E

VACASSY616

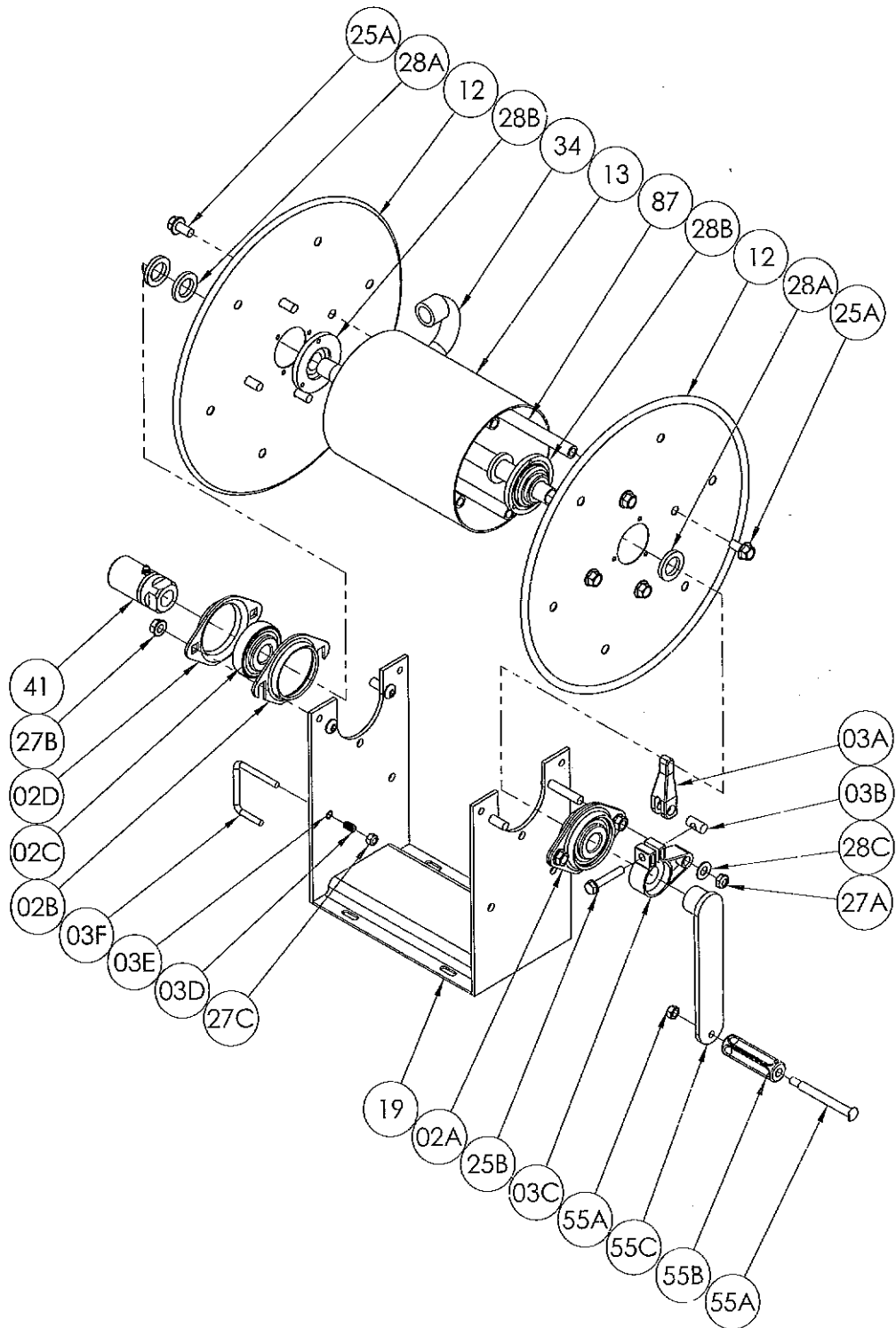
Water Tank Assembly

205 Gallon Saddle Tanks

| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|-----------|--|
| 1 | 2 | 8043805 | TANK, WATER 205 GAL. POLY. |
| | 2 | 8043805-3 | TANK, WATER LID 205GAL |
| * | 1 | 8030518 | 1/2" BULKHEAD 45 DEG |
| 2 | 1 | 8043076 | HOSE VAC CLEAR VINLY 1 1/4-37" |
| 3 | 1 | 8041312 | FITTING HOSE BARB 20HB-20MP |
| 4 | 1 | 8043843 | REDUCER, 1 1/4"MP - 1/2"FP GALV |
| 5 | 2 | 8030996 | ADAPTER, FEMALE 2" |
| 6 | 1 | 8031001 | Y-STRAINER, 2" |
| | 1 | 8031001-1 | 2" SP MANIFOLD BODY |
| | 1 | 8031001-2 | STRAINER CAP |
| | 1 | 8031001-3 | PLUG |
| | 1 | 8031001-4 | O-RING |
| | 1 | 8031001-5 | 2" SP EPDM GASKET |
| | 1 | 8031001-6 | 2" SP VITON GASKET |
| | 1 | 8031001-7 | EPDM O-RING |
| | 1 | 8031001-8 | 2" 80 MESH SCREEN |
| 7 | 1 | 8030998 | BALL VALVE, BANJO 1 1/2"ID |
| 8 | 1 | 8043949 | BALL VALVE TO TANK CLEAN OUT HOSE #6-215 ST-90 |
| | 2 | T320040 | FITTING, HOSE 6HO-6FJ |
| 9 | 2 | T401102 | ELBOW, 6MJ-6MP |
| 10 | 2 | U010017 | 1 1/2" CLAMP HOOK 1/4-20 THD |
| 11 | 1 | 8030351 | STEEL BALL VALVE, 3/8" NPT |
| 12 | 1 | 8040670 | BALL VALVE BRACKET |
| 13 | 8 | U120142 | NUT, LOCK FLANGED .250-20 G2 |
| | 8 | U200020 | WASHER, FLAT 1/4" |
| 14 | 1 | T402153 | TEE, 6MJ-6MJ-6FJ |
| 15 | 1 | 8031125 | UNION, 4FP-6FJ |
| 16 | 1 | 8030923 | FILTER, WATER HIGH PRESSURE |
| 17 | 1 | 8043664 | BALL VALVE TO WATER PUMP HOSE #6-36 ST-90 |
| 18 | 1 | 8041477 | HOSE REEL TO BALL VALVE HOSE #6-140 ST-ST |
| | 2 | T320040 | FITTING, HOSE 6HO-6FJ |
| 19 | 1 | 8031219 | COUPLING, 2" ALUM MP X FCAMLOCK |
| 20 | 1 | 8046528 | QUICK FILL 205 GAL |
| 21 | 1 | 8045635 | HOSE VAC CLEAR VINLY 2"-122 |
| | 2 | 8043397 | CLAMP VAC CLEAR HOSE 2" |
| 22 | 2 | 8045636 | HOSE VAC CLEAR VINLY 2"-36 |
| | 2 | 8043397 | CLAMP VAC CLEAR HOSE 2" |
| 23 | 6 | T410115 | HOSE BARB 2" |
| 24 | 1 | 8090896 | SWITCH, WATER TANK HORIZ |

* NOT SHOWN

Hose Reel (Components)



072210-E

VACASSY761

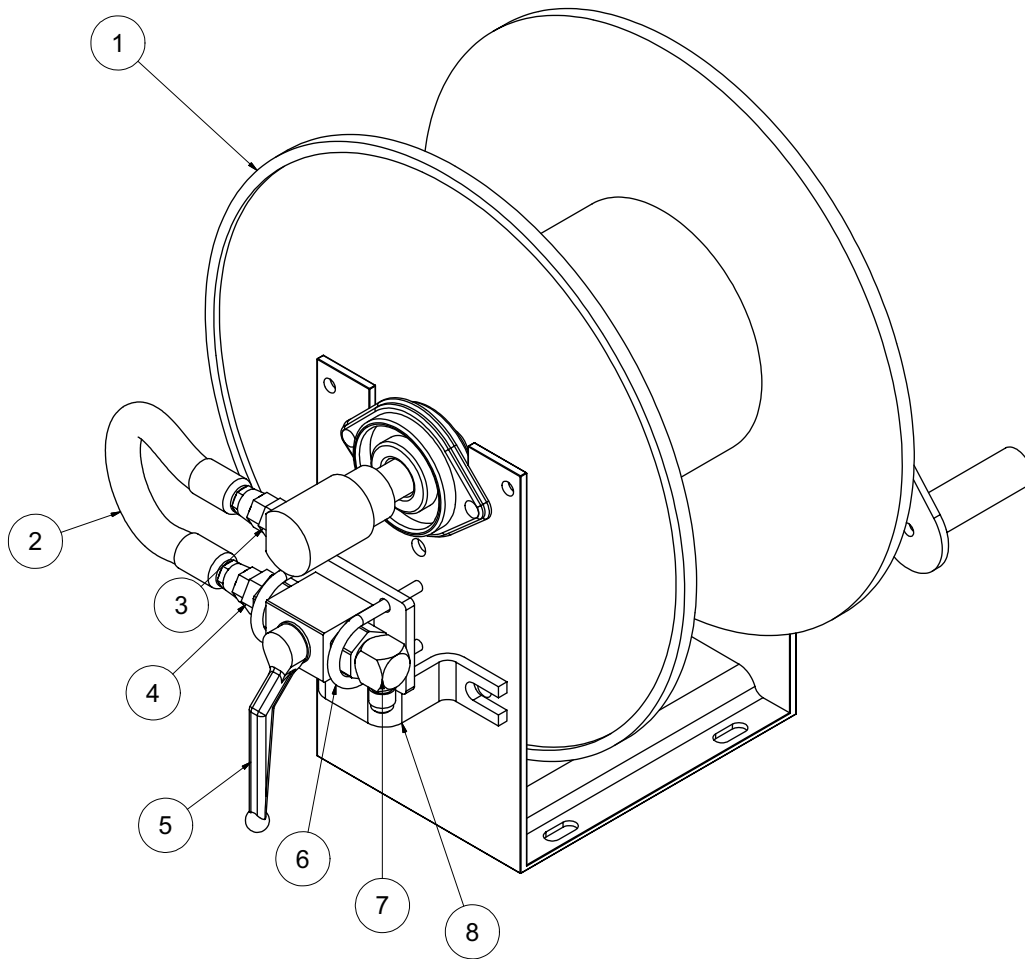
Hose Reel Assembly

| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|-------------|--|
| | 1 | 8030879 | HOSE REEL, WATER 3/8" X 100 |
| 1 | 2 | 8030879-02A | 1/2" SELF ALIGNING BEARING for 1000 SERIES (INCLUDES 02B, 02C and 02D) |
| 2 | 2 | 8030879-02B | SELF ALIGNING BEARING HOLDER SLOTTED |
| 3 | 2 | 8030879-02C | 1/2" SELF ALIGNING BEARING INSERT |
| 4 | 2 | 8030879-02D | SELF ALIGNING BEARING HOLDER |
| 5 | 1 | 8030879-03A | CAM LOCK LEVER |
| 6 | 1 | 8030879-03B | BRASS BARREL NUT for CAM LOCK BRAKE |
| 7 | 1 | 8030879-03C | CAM LOCK DRAG BRAKE BODY for 1/2" HUBS |
| 8 | 1 | 8030879-03D | SPRING for PL-3 PINLOCK (1" LONG X 0.32"OD X 0.26"ID) |
| 9 | 1 | 8030879-03E | PINLOCK MOUNTING SLEEVE (NOT FIELD INSTALLABLE) |
| 10 | 1 | 8030879-03F | PL-3 PINLOCK |
| 11 | 1 | 8030879-03G | CAM LOCK KIT (INCLUDES 03A, 03B, 03C and 25B) |
| 12 | 1 | 8030879-03H | PL-3 PINLOCK KIT (INCLUDES 03D, 03E, 03F and 27C) |
| 13 | 2 | 8030879-12 | (14-16) 14.25" DIAMETER DISC 18GA STEEL - SPECIFY MODEL |
| 14 | 1 | 8030879-13 | DRUM, 6" DIAMETER ALUMINUM - SPECIFY MODEL |
| 15 | 1 | 8030879-19 | STEEL FRAME ASSY. FOR 1000 SERIES REEL - SPECIFY MODEL |
| 16 | 8 | 8030879-25A | 3/8" -16 X 3/4" SPINLOCK BOLT |
| 17 | 1 | 8030879-25B | 5/16" -18 X 1 3/4" HEX HEAD BOLT w/ NYLOCK PATCH |
| 18 | 1 | 8030879-27A | 3/8" - 16 HEX HEAD NUT (ESNA) |
| 19 | 4 | 8030879-27B | 3/8"- 16 SPINLOCK NUT |
| 20 | 1 | 8030879-27C | 1/4"-20 HEX HEAD HUT (ESNA) |
| 21 | 3 | 8030879-28A | 1 3/8"OD X 7/8"ID X 3/16" HUB SPACER WASHER |
| 22 | 2 | 8030879-28B | 1/2" HUB DISC WASHER, per P28A-00050 |
| 23 | 1 | 8030879-28C | 3/8" SAE FLAT WASHER (13/16"OD) |
| 24 | 1 | 8030879-34 | 1/2" WELDED STEEL HUB - SPECIFY MODEL and OUTLET FITTING |
| 25 | 1 | 8030879-41 | 1/2" 90 DEGREE F x F SUPER SWIVEL (AFLAS PACKING) |
| 26 | 1 | 8030879-55A | 3/8" SHOULDER BOLT and NUT for plastic crank handle |
| 27 | 1 | 8030879-55B | BLACK PLASTIC CRANK HANDLE |
| 28 | 1 | 8030879-55C | HAND CRANK (INCLUDES 55A and 55B) |
| 29 | 4 | 8030879-87 | ANODIZED ALUMINUM THREADED SPACER TUBE |

072210-E

VACASSY761

Hose Reel Assembly



101112-E

VACASSY762

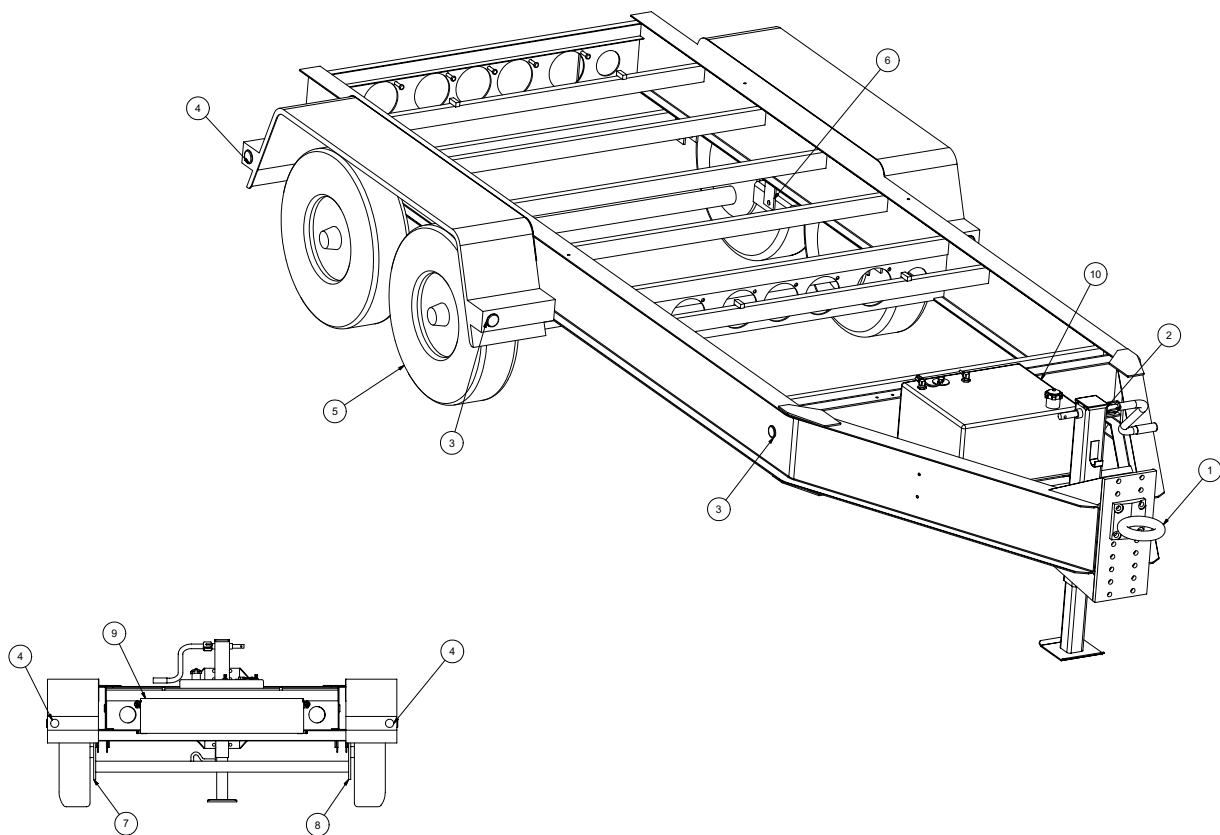
Hose Reel Assembly

| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|---------|--------------------------------------|
| 1 | 1 | 8030879 | HOSE REEL, WATER 3/8" X 100 |
| 2 | 1 | 8044147 | HOSE ASSY VAC 6-10 ST-ST |
| | 2 | T320040 | FITTING, HOSE 6HO-6FJ |
| 3 | 1 | 8031291 | UNION, 1/2"MP - 3/8"MJ |
| 4 | 1 | T400028 | UNION, 3/8"MP - 3/8"MJ |
| 5 | 1 | 8030351 | STEEL BALL VALVE - 3/8"NPT |
| 6 | 2 | U010017 | 1 1/2" CLAMP HOOK 1/4 - 20 THD |
| 7 | 1 | T401102 | ELBOW 6MJ - 6MP |
| 8 | 1 | 8046740 | BALL VALVE BRACKET |
| * | 1 | 8041830 | HOSE ASSY 3/8" X 50' 4000PSI |
| * | 1 | 8030504 | REDUCER, 3/8" FP - 1/4"MP |
| * | 1 | 8030526 | FITTING, QD WATER 1/4"FJ - 1/4"FP SS |

101112-E

VACASSY762

Trailer Assy 514



030314-E

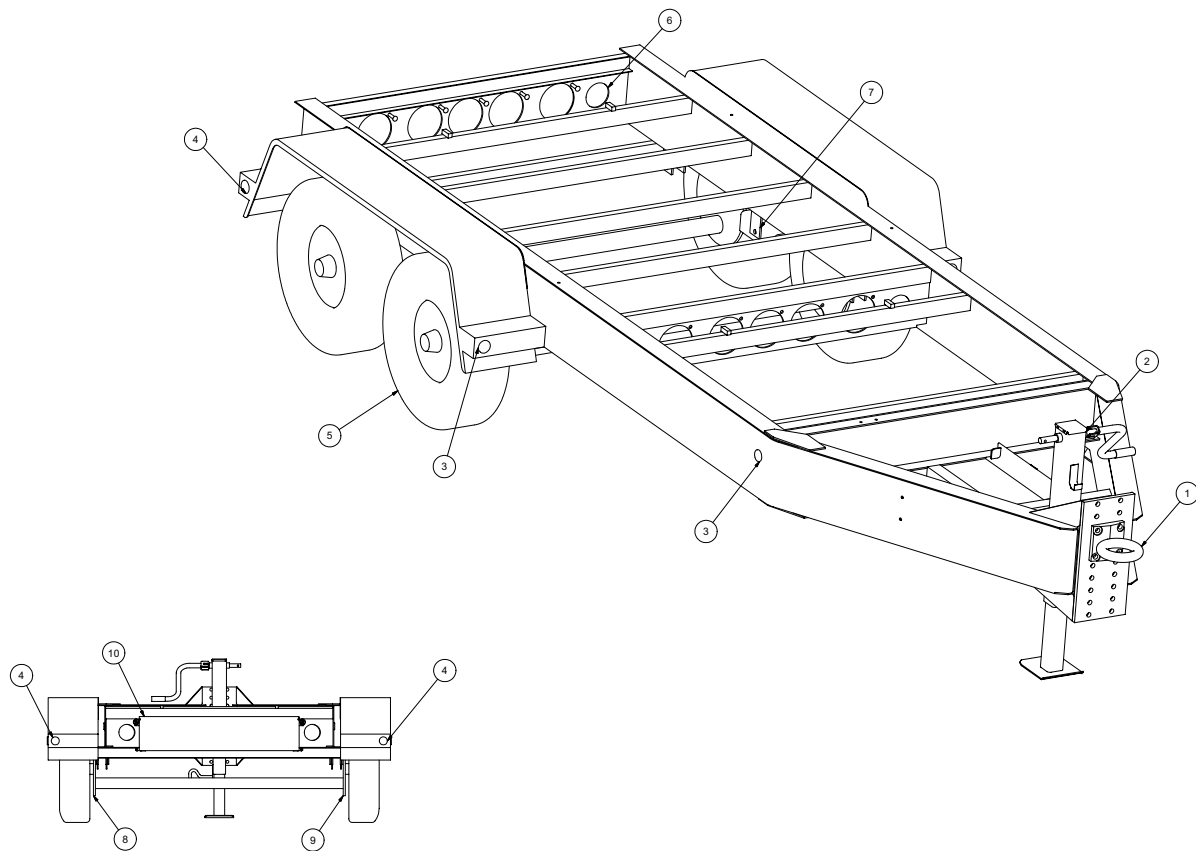
VACASSY903

Trailer Assy 514

| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|----------|-----------------------------|
| 1 | 1 | 8045366 | 4 BOLT PINTLE EYE |
| 2 | 1 | 8043548 | JACK - MANUAL |
| | 1 | 8043984 | JACK - HANDLE |
| | | 8043653 | JACK - HYDRAULIC (OPTIONAL) |
| 3 | 4 | 8044000 | 2" YELLOW MARKER LIGHT |
| | 4 | 8044002 | 2" RUBBER GROMMET |
| 4 | 4 | 8043999 | 2" RED MARKER LIGHT |
| | 4 | 8044002 | 2" RUBBER GROMMET |
| 5 | 4 | 8045708 | TIRE, ST235 X 80 R16E |
| | 4 | 8045709 | WHEEL |
| | 2 | 8045710 | AXLE |
| | 4 | 8045711 | HUB |
| | 32 | 8043987 | LUG NUT |
| | 4 | 8047429 | GREASE CAP |
| 6 | 4 | 8045712 | SPRING |
| | 8 | 8045713 | U-BOLT NUT |
| | 8 | 8045714 | U-BOLT |
| | 4 | 8045715 | TIE PLATE |
| 7 | 1 | 8045716 | LH BRAKE ASSEMBLY |
| | 2 | 8045717 | MAGNET KIT |
| | 2 | 8045718 | SHOE KIT |
| | 1 | 8045719 | ADJUSTER KIT |
| 8 | 1 | 8045720 | RH BRAKE ASSEMBLY |
| | 2 | 8045717 | MAGNET KIT |
| | 2 | 8045718 | SHOE KIT |
| | 1 | 8045719 | ADJUSTER KIT |
| 9 | 1 | 8044809 | TAILGATE WELDMENT |
| | 2 | U340050 | PIN LINCH 3/16" X 1 9/16 |
| | 2 | U000420 | SCREW, HEX 3/8"- 16 X 1.25 |
| | 4 | U200600 | WASHER, FLAT 3/8" |
| 10 | 1 | 8040763 | FUEL TANK (22 GAL) |
| | 1 | 8043359 | STRAP W/EYEBOLT |
| | 1 | 36201441 | FUEL CAP |
| | 1 | 8030697 | FUEL SENDING UNIT |
| | 1 | 8030656 | FUEL FILTER |
| * | 1 | 8043981 | SAFETY CHAIN |
| * | 1 | 8043982 | BREAKAWAY SWITCH |
| * | 1 | 8043983 | BREAKAWAY BATTERY |
| * | 1 | 8044008 | BREAKAWAY BOX |
| * | 1 | 8044007 | 6-WAY PLUG |

* NOT SHOWN

Trailer Assy 518



022814-E

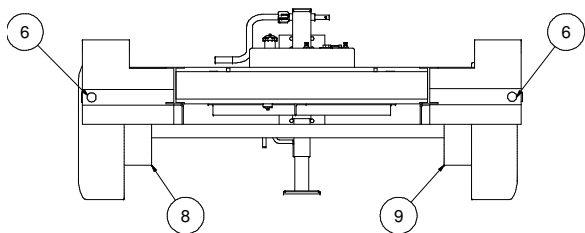
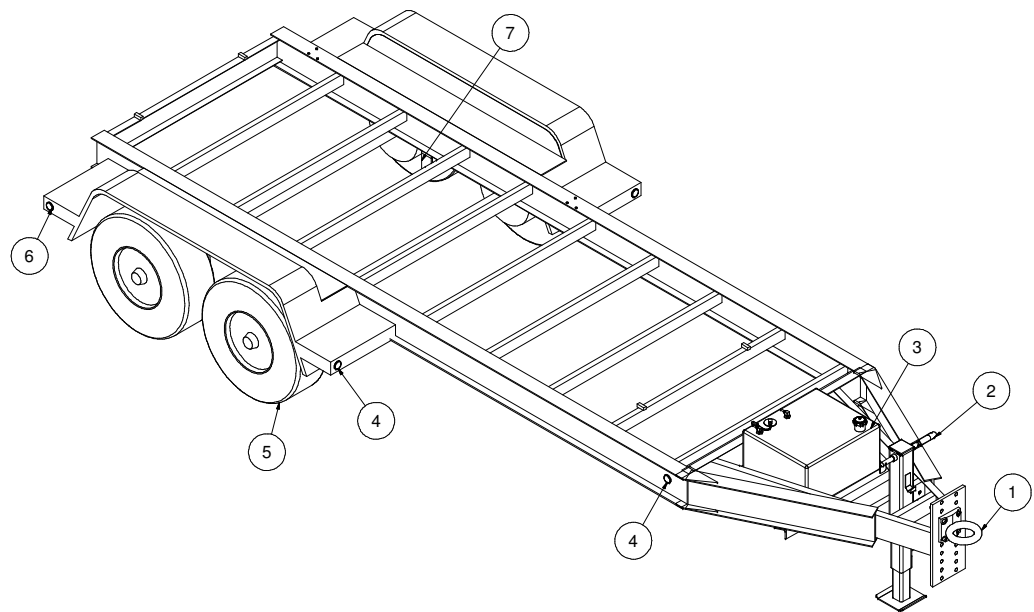
VACASSY909

Trailer Assy 518

| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|---------|-----------------------------|
| 1 | 1 | 8045366 | 4 BOLT PINTLE EYE |
| 2 | 1 | 8043548 | JACK - MANUAL |
| | 1 | 8043984 | JACK - HANDLE |
| | | 8043653 | JACK - HYDRAULIC (OPTIONAL) |
| 3 | 4 | 8044000 | 2" YELLOW MARKER LIGHT |
| | 4 | 8044002 | 2" RUBBER GROMMET |
| 4 | 4 | 8043999 | 2" RED MARKER LIGHT |
| | 4 | 8044002 | 2" RUBBER GROMMET |
| 5 | 4 | 8045370 | TIRE, ST215 X 75 R 17.5 |
| | 4 | 8045369 | WHEEL |
| | 2 | 8045371 | AXLE |
| | 4 | 8045372 | HUB |
| | 32 | 8043987 | LUG NUT |
| | 4 | 8047429 | GREASE CAP W/ O-RING & PLUG |
| 6 | 2 | 8044327 | TAILGATE 514/518 |
| 7 | 4 | 8045373 | SPRING |
| | 8 | 8045374 | U-BOLT NUT |
| | 8 | 8045375 | U-BOLT |
| | 4 | 8045376 | TIE PLATE |
| 8 | 1 | 8045377 | LH BRAKE ASSEMBLY |
| | 2 | 8045379 | MAGNET KIT |
| | 2 | 8045380 | SHOE KIT |
| | 1 | 8045381 | ADJUSTER KIT |
| 9 | 1 | 8045378 | RH BRAKE ASSEMBLY |
| | 2 | 8045379 | MAGNET KIT |
| | 2 | 8045380 | SHOE KIT |
| | 1 | 8045381 | ADJUSTER KIT |
| 10 | 1 | 8044809 | TAILGATE WELDMENT |
| | 2 | U340050 | PIN LINCH 3/16" X 1 9/16 |
| | 2 | U000420 | SCREW, HEX 3/8"-16 X 1.25 |
| | 4 | U200600 | WASHER, FLAT 3/8" |
| * | 1 | 8043981 | SAFETY CHAIN |
| * | 1 | 8043982 | BREAKAWAY SWITCH |
| * | 1 | 8043983 | BREAKAWAY BATTERY |
| * | 1 | 8044008 | BREAKAWAY BOX |
| * | 1 | 8044007 | 6-WAY PLUG |
| * | 1 | 8046994 | SPARE TIRE |

* NOT SHOWN

Trailer Assy 818



022814-E

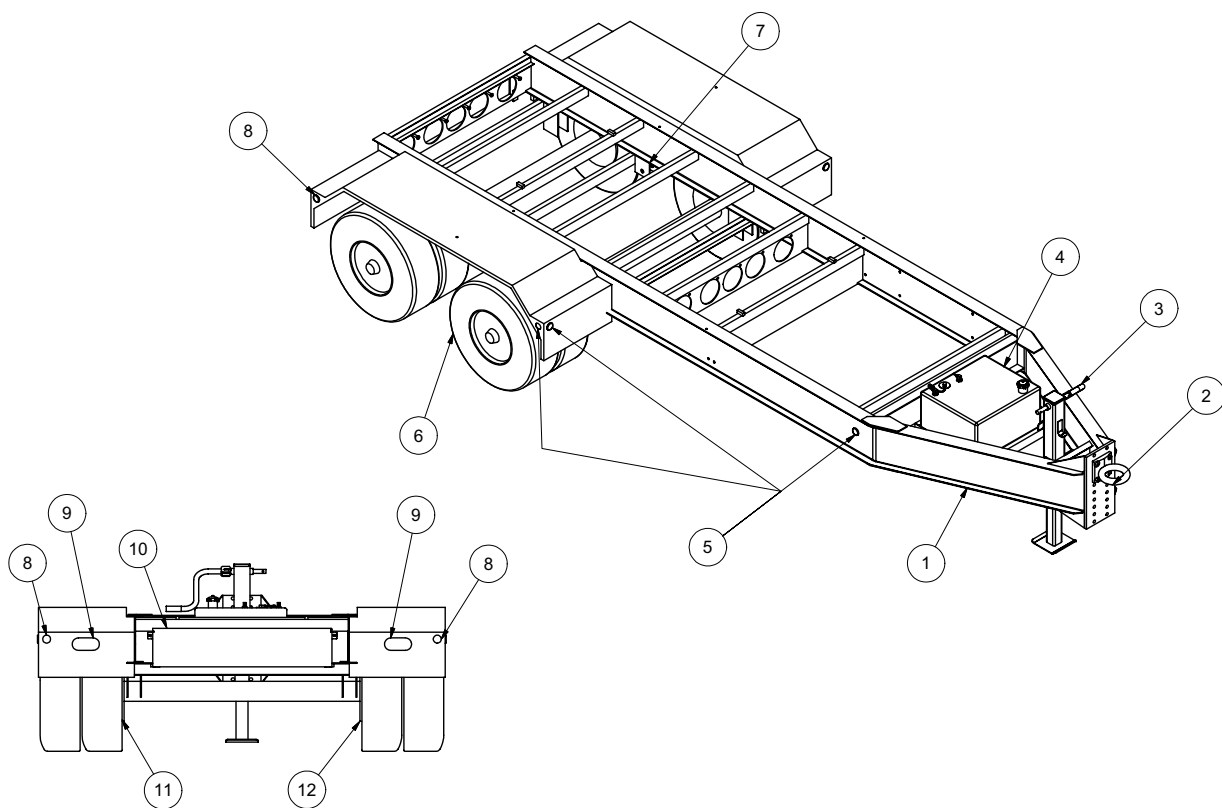
VACASSY893

Trailer Assy 818

| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|---------|-----------------------------|
| * | 1 | 8030328 | TRAILER, 818 I-BEAM |
| 1 | 1 | 8045366 | 4 BOLT PINTLE EYE |
| 2 | 1 | 8043548 | JACK - MANUAL |
| | 1 | 8043984 | JACK - HANDLE |
| | | 8043653 | JACK - HYDRAULIC (OPTIONAL) |
| 3 | 4 | 8044000 | 2" YELLOW MARKER LIGHT |
| | 4 | 8044002 | 2" RUBBER GROMMET |
| 4 | 4 | 8043999 | 2" RED MARKER LIGHT |
| | 4 | 8044002 | 2" RUBBER GROMMET |
| 5 | 4 | 8045370 | TIRE, ST215 X 75 R 17.5 |
| | 4 | 8045369 | WHEEL |
| | 2 | 8045371 | AXLE |
| | 4 | 8045372 | HUB |
| | 32 | 8043987 | LUG NUT |
| | 4 | 8047406 | GREASE CAP W/ O-RING & PLUG |
| 6 | 2 | 8044327 | TAILGATE 514/518 |
| 7 | 4 | 8045373 | SPRING |
| | 8 | 8045374 | U-BOLT NUT |
| | 8 | 8045375 | U-BOLT |
| | 4 | 8045376 | TIE PLATE |
| 8 | 1 | 8045377 | LH BRAKE ASSEMBLY |
| | 2 | 8045379 | MAGNET KIT |
| | 2 | 8045380 | SHOE KIT |
| | 1 | 8045381 | ADJUSTER KIT |
| 9 | 1 | 8045378 | RH BRAKE ASSEMBLY |
| | 2 | 8045379 | MAGNET KIT |
| | 2 | 8045380 | SHOE KIT |
| | 1 | 8045381 | ADJUSTER KIT |
| * | 1 | 8043981 | SAFETY CHAIN |
| * | 1 | 8043982 | BREAKAWAY SWITCH |
| * | 1 | 8043983 | BREAKAWAY BATTERY |
| * | 1 | 8044008 | BREAKAWAY BOX |
| * | 1 | 8044007 | 6-WAY PLUG |
| * | 1 | 8046994 | SPARE TIRE |

* NOT SHOWN

Trailer Assy 1224



022814-E

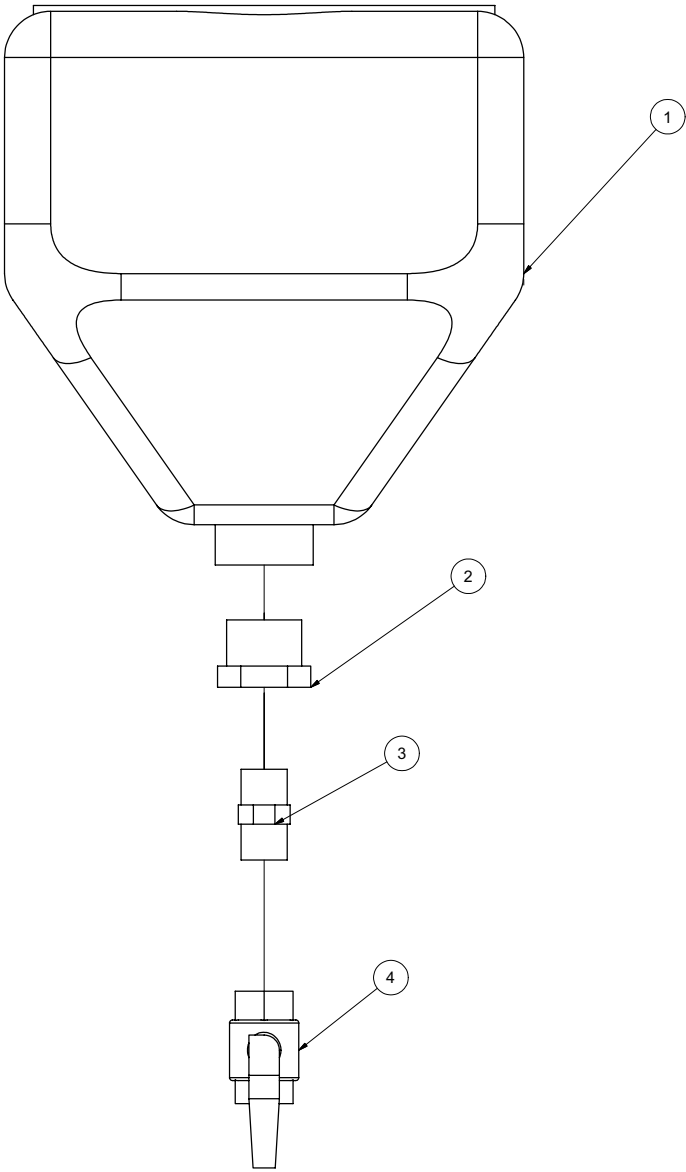
VACASSY906

Trailer Assy 1224

| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|----------|------------------------------|
| 1 | 1 | 8043190 | TRAILER 824 |
| | 1 | 8030871 | TRAILER 1224 |
| 2 | 1 | 8045366 | 4 BOLT PINTLE EYE |
| 3 | 1 | 8043548 | JACK-MANUAL |
| | 1 | 8043984 | JACK-HANDLE |
| | | 8043653 | JACK-HYDRAULIC (OPTIONAL) |
| 4 | 1 | 8040763 | FUEL TANK (22 GAL) |
| | 1 | 8043359 | STRAP W/EYEBOLT |
| | 1 | 36201441 | FUEL CAP |
| | 1 | 8030697 | FUEL SENDING UNIT |
| | 1 | 8030656 | FUEL FILTER |
| 5 | 6 | 8044000 | 2" YELLOW MARKER LIGHT |
| | 6 | 8044002 | 2" RUBBER GROMMET |
| 6 | 8 | 8045620 | TIRE, ST235X80 R16E |
| | 8 | 8045621 | WHEEL |
| | 2 | 8045622 | AXLE |
| | 4 | 8045623 | HUB |
| | 32 | 8043987 | LUG NUT |
| | 4 | 8047405 | GREASE CAP W/ O-RING & PLUG |
| 7 | 4 | 8045624 | SPRING |
| | 8 | 8045625 | U-BOLT NUT |
| | 8 | 8045626 | U-BOLT |
| | 4 | 8045627 | TIE PLATE |
| 8 | 4 | 8043999 | 2" RED MARKER LIGHT |
| | 4 | 8044002 | 2" RUBBER GROMMET |
| 9 | 2 | 8045633 | STOP/TURN TAIL LIGHTS (OVAL) |
| 10 | 1 | 8044809 | TAILGATE WELDMENT |
| | 2 | U340050 | PIN LINCH 3/16" X 1 9/16" |
| | 2 | U000420 | SCREW, HEX 3/8"-16 X 1/25 |
| | 4 | U200600 | WASHER, FLAT 3/8" |
| 11 | 1 | 8045628 | LH BRAKE ASSEMBLY |
| | 2 | 8045629 | MAGNET KIT |
| | 2 | 8045630 | SHOE KIT |
| | 1 | 8045631 | ADJUSTER KIT |
| 12 | 1 | 8045632 | RH BRAKE ASSEMBLY |
| | 2 | 8045629 | MAGNET KIT |
| | 2 | 8045630 | SHOE KIT |
| | 1 | 8045631 | ADJUSTER KIT |
| * | 1 | 8043981 | SAFETY CHAIN |
| * | 1 | 8043982 | BREAKAWAY SWITCH |
| * | 1 | 8043983 | BREAKAWAY BATTERY |
| * | 1 | 8044008 | BREAKAWAY BOX |
| * | 1 | 8044007 | 6-WAY PLUG |

* NOT SHOWN

Antifreeze Assembly



060309

VACASSY943

Antifreeze Assembly

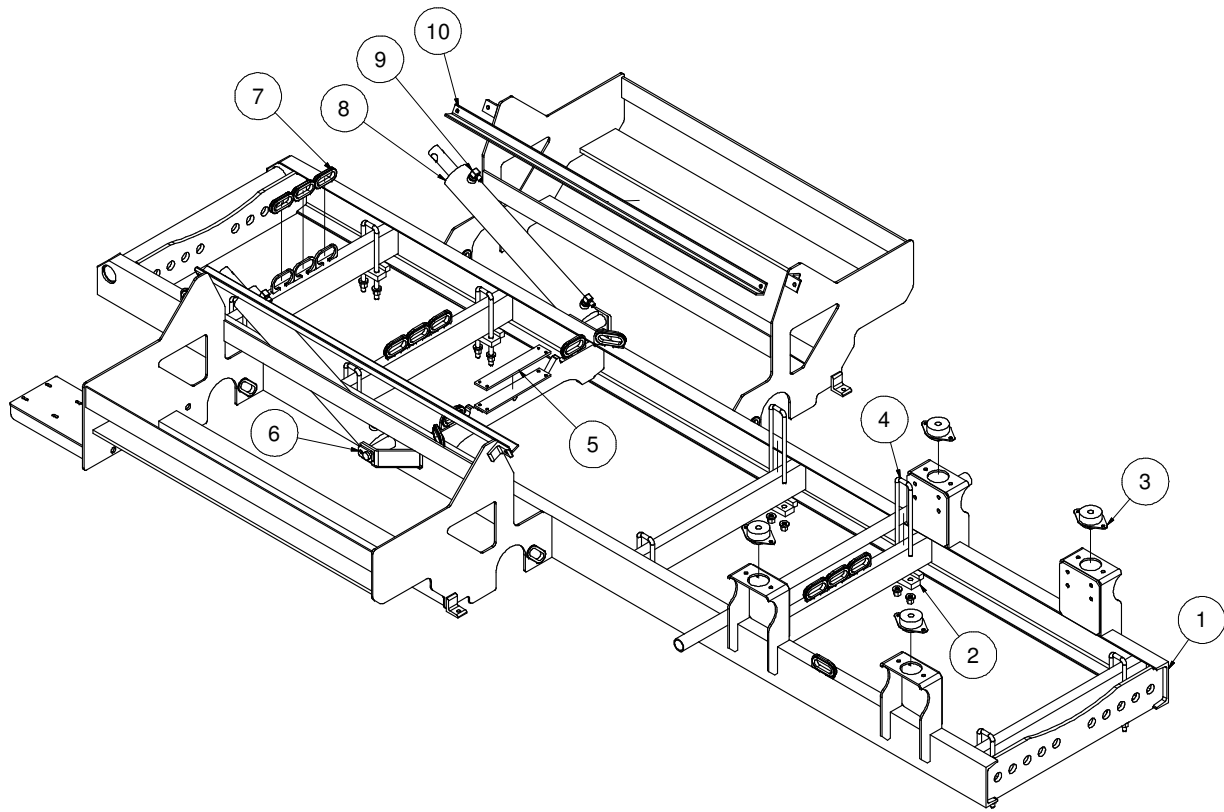
| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|----------|---------------------------|
| 1 | 1 | 8030394 | ANTI-FREEZE TANK 4 GAL. |
| | 4 | U000180 | SCREW, HC .312 -18 X .750 |
| | 4 | U200040 | WASHER, FLAT 5/16" |
| | 4 | U210040 | WASHER, LOCK 5/16" |
| 2 | 1 | T400585 | REDUCER, 20MP-12FP |
| 3 | 1 | T400800 | UNION, 12MP-12MP |
| 4 | 1 | T000185 | BALL VALVE, BRASS 3/4" FP |

060309

VACASSY943

Skid Assembly

V500HD



031612-E

VACASSY884

Skid Assembly

V500HD

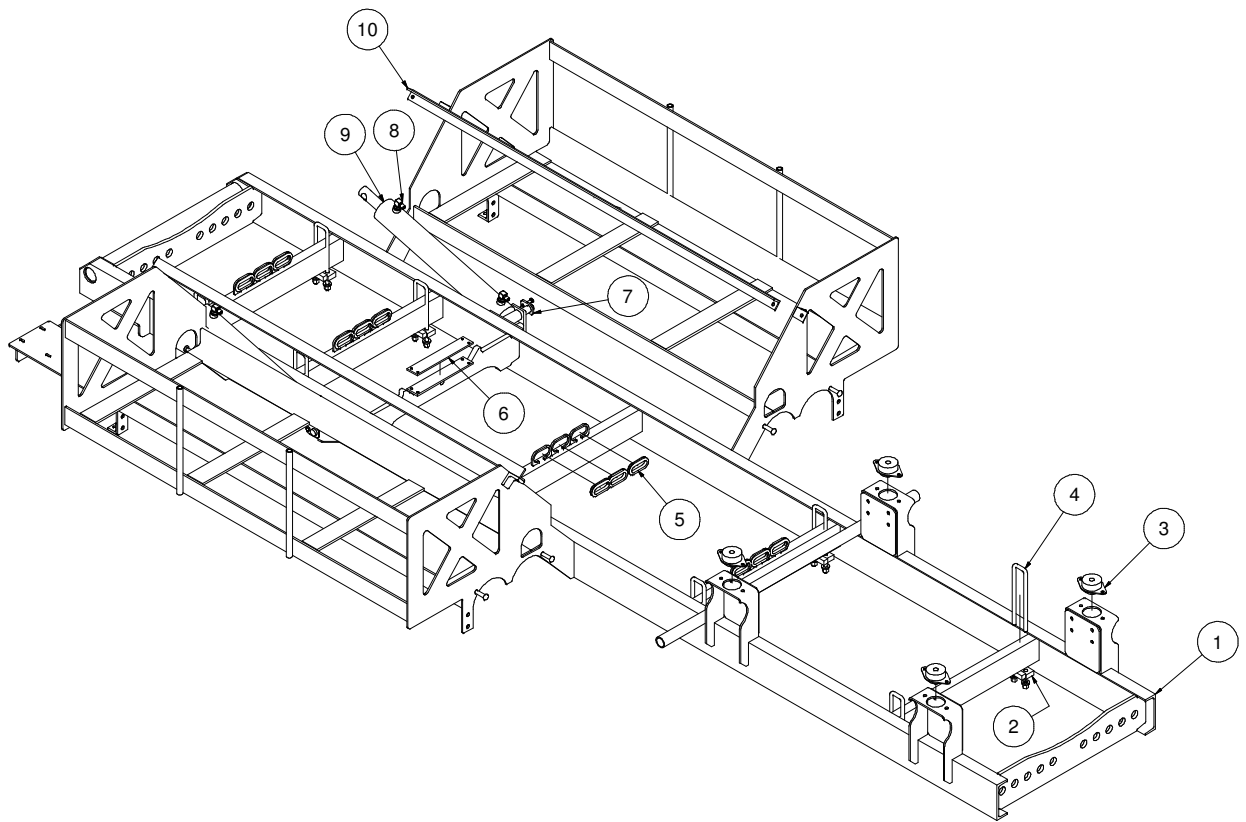
| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|---------|--|
| 1 | 1 | 8047007 | TRAILER SKID, V800HD 205'S WT |
| 2 | 8 | 8040240 | U-BOLT MOUNTING BLOCK |
| 3 | 4 | 8030904 | ISOLATOR 840LB. |
| | 4 | U000560 | SCREW, HC 3/8"-16 X 3" |
| | 4 | 8030389 | WASHER, SNUBBLING |
| | 4 | U120110 | NUT, LOCK 3/8"-16 |
| | 8 | U000420 | SCREW, HC 3/8"-16 X 1" |
| | 24 | U200060 | WASHER, FLAT 3/8" |
| | 8 | U210060 | WASHER, LOCK 3/8" |
| | 8 | U100060 | NUT, HEX 3/8"-16 |
| 4 | 8 | 8040038 | U-BOLT, 1/2"-13 X 10"LG - 1 5/8"GAP GR.8 |
| 5 | 1 | 8045787 | STRIP, PLASTIC 1/4" X 2" X 11" |
| 6 | 2 | 8030128 | CYLINDER PIN WELDMENT |
| | 2 | U000400 | SCREW, HC 3/8"-16 X .750 |
| 7 | 12 | 8042812 | GROMMET 2"ID 3"OD 1/4"WOG TRAILER SLOT MODEL |
| 8 | 2 | 8030359 | SPOIL TANK CYLINDER |
| 9 | 4 | T401270 | ELBOW, 90 1/2"MB - 3/8"MJ |
| 10 | 2 | 8044390 | WATER TANK ANGLE 205GAL |
| | 4 | U000460 | SCREW, HC 3/8"-16 X 1.50" |
| | 8 | U000440 | WASHER, FLAT 3/8" |
| | 4 | U120110 | NUT, LOCK 3/8" |

031612-E

VACASSY884

Skid Assembly

V800HD



031312-E

VACASSY883

Skid Assembly

V800HD

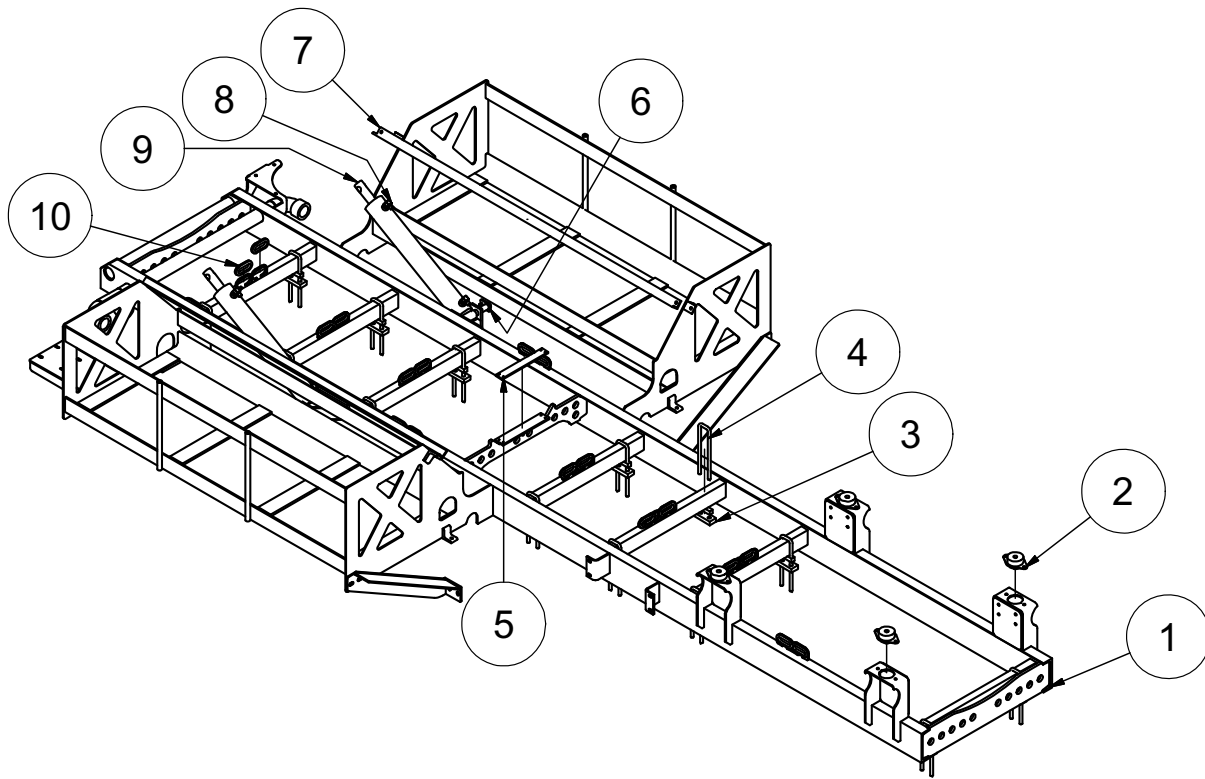
| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|---------|--|
| 1 | 1 | 8047007 | TRAILER SKID, V800HD 205'S WT |
| 2 | 8 | 8040240 | U-BOLT MOUNTING BLOCK |
| 3 | 4 | 8030904 | ISOLATOR 840LB. |
| | 4 | U000560 | SCREW, HC 3/8"-16 X 3" |
| | 4 | 8030389 | WASHER, SNUBBLING |
| | 4 | U120110 | NUT, LOCK 3/8"-16 |
| | 8 | U000420 | SCREW, HC 3/8"-16 X 1" |
| | 24 | U200060 | WASHER, FLAT 3/8" |
| | 8 | U210060 | WASHER, LOCK 3/8" |
| | 8 | U100060 | NUT, HEX 3/8"-16 |
| 4 | 8 | 8040038 | U-BOLT, 1/2"-13 X 10"LG - 1 5/8"GAP GR.8 |
| 5 | 12 | 8042812 | GROMMET 2"ID 3"OD 1/4"WOG TRAILER SLOT MODEL |
| 6 | 1 | 8045787 | STRIP, PLASTIC 1/4" X 2" X 11" |
| 7 | 2 | 8030128 | CYLINDER PIN WELDMENT |
| | 2 | U000400 | SCREW, HC 3/8"-16 X .750 |
| 8 | 4 | T401270 | ELBOW, 90 1/2"MB - 3/8"MJ |
| 9 | 2 | 8030359 | SPOIL TANK CYLINDER |
| 10 | 2 | 8044390 | WATER TANK ANGLE 205GAL |
| | 4 | U000460 | SCREW, HC 3/8"-16 X 1.50" |
| | 8 | U000440 | WASHER, FLAT 3/8" |
| | 4 | U120110 | NUT, LOCK 3/8" |

031312-E

VACASSY883

Skid Assembly

V1200HD



060311-E

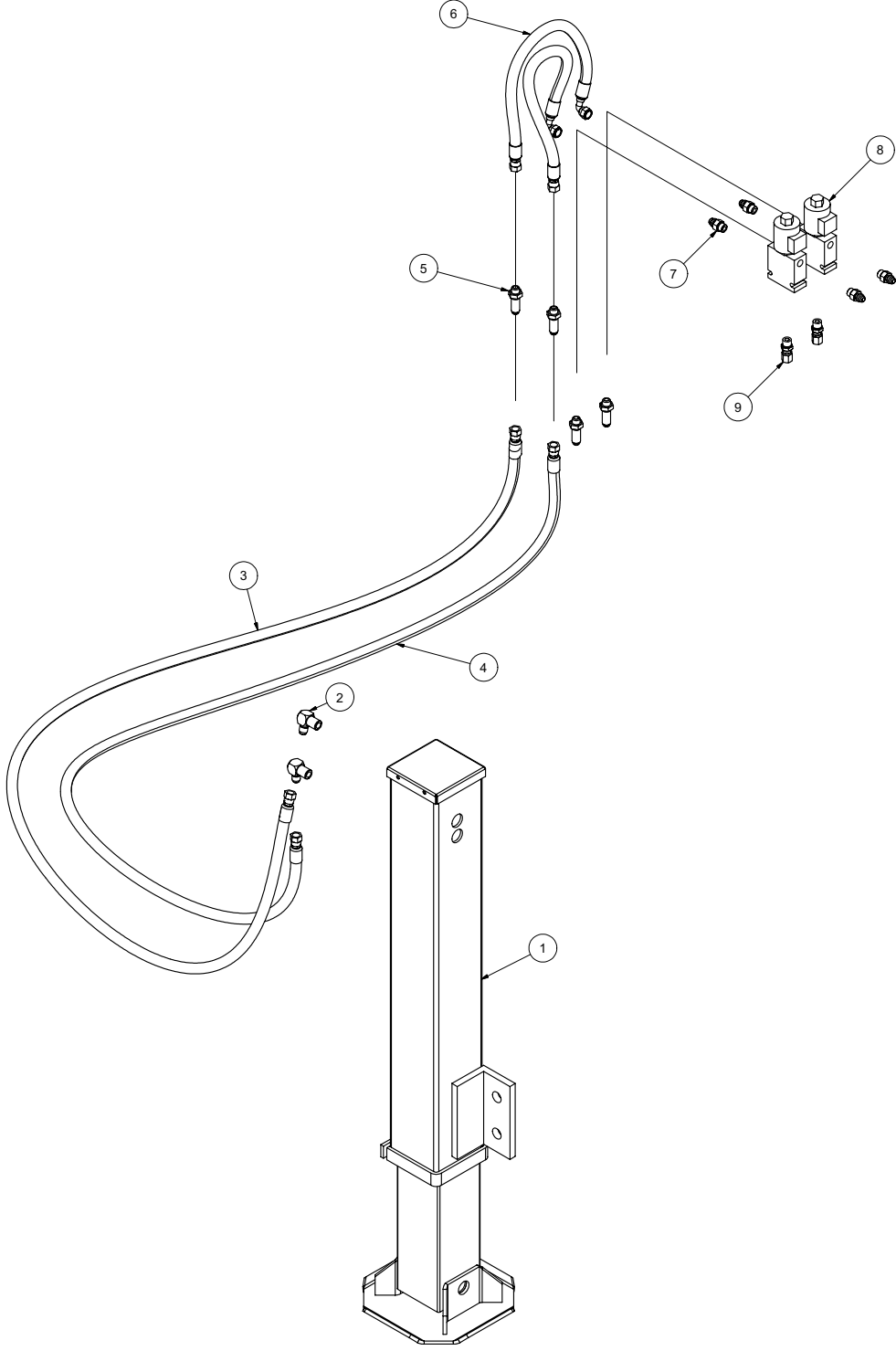
VACASSY880

Skid Assembly

V1200HD

| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|---------|--|
| 1 | 1 | 8047211 | 1200 SKID HD SADDLE TANK |
| 2 | 4 | 8030904 | ISOLATOR 840LB |
| | 4 | U000560 | SCREW, HC 3/8"-16 X 3" |
| | 4 | 8030851 | WASHER SNUBBLING |
| | 4 | U120110 | NUT, LOCK 3/8" |
| | 8 | U000420 | SCREW, HC 3/8"-16 X 1" |
| | 24 | U200060 | WASHER FLAT 3/8" |
| | 8 | U210060 | WASHER LOCK 3/8" |
| | 8 | U100060 | NUT, HEX 3/8-16 |
| 3 | 14 | 8040240 | U-BOLT MOUNTING BLOCK |
| 4 | 14 | 8040038 | U-BOLT 1/2"-13 X 10"LG 1 5/8"GAP GR.8 |
| 5 | 1 | 8045787 | STRIP, PLASTIC 1/4" X 1 1/2" X 11" |
| 6 | 2 | 8030128 | CYLINDER PIN WELDMENT |
| | 2 | U000400 | SCREW, HC 3/8"-16 X .75" |
| 7 | 2 | 8044390 | WATER TANK ANGLE HOLDER |
| 8 | 4 | T401270 | ELBOW, 90 1/2"MB X 1/2"MJ |
| 9 | 2 | 8043642 | CYLINDER, HYD 3.5" X 20" V1200 |
| 10 | 18 | 8042812 | GROMMET 2"ID 3"OD 1/4"WOG TRAILER SLOT MODEL |

Hydraulic Jack Option



072808

VACASSY956

Hydraulic Jack Option

| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|---------|------------------------------|
| 1 | 1 | 8043653 | HYDRAULIC JACK CYLINDER |
| 2 | 2 | T401103 | ELBOW 90 DEG 3/8"MJ - 1/4"FJ |
| 3 | 1 | 8042661 | HOSE ASSY VAC 6-66 ST-90 |
| 4 | 1 | 8041442 | HOSE ASSY VAC 6-60 ST-90 |
| 5 | 2 | T400391 | BULKHEAD, 3/8"MJ - 3/8"MJ |
| 6 | 2 | 8040973 | HOSE ASSY VAC 6-20 ST-90 |
| 7 | 4 | T400037 | UNION, 3/8"MB - 3/8"MJ |
| 8 | 2 | 8041788 | SOLENOID VALVE |
| 9 | 2 | 8030512 | UNION, 3/8"MB - 3/8"FJ |
| * | 1 | X000274 | SWITCH ROCKER DPDT |

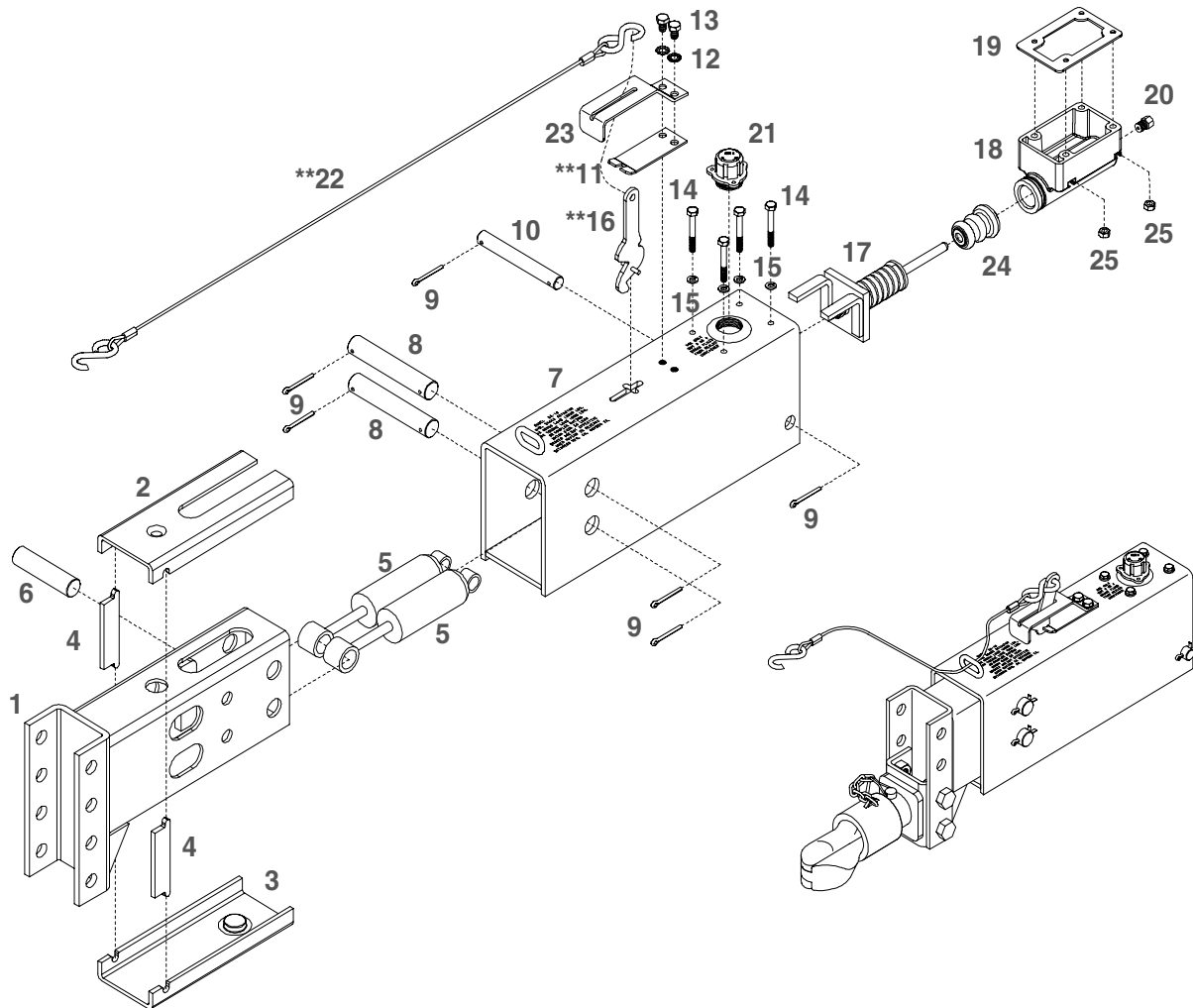
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072808

VACASSY956

Surge Brake Option

V500



051408

VACASSY948

Surge Brake Option

V500

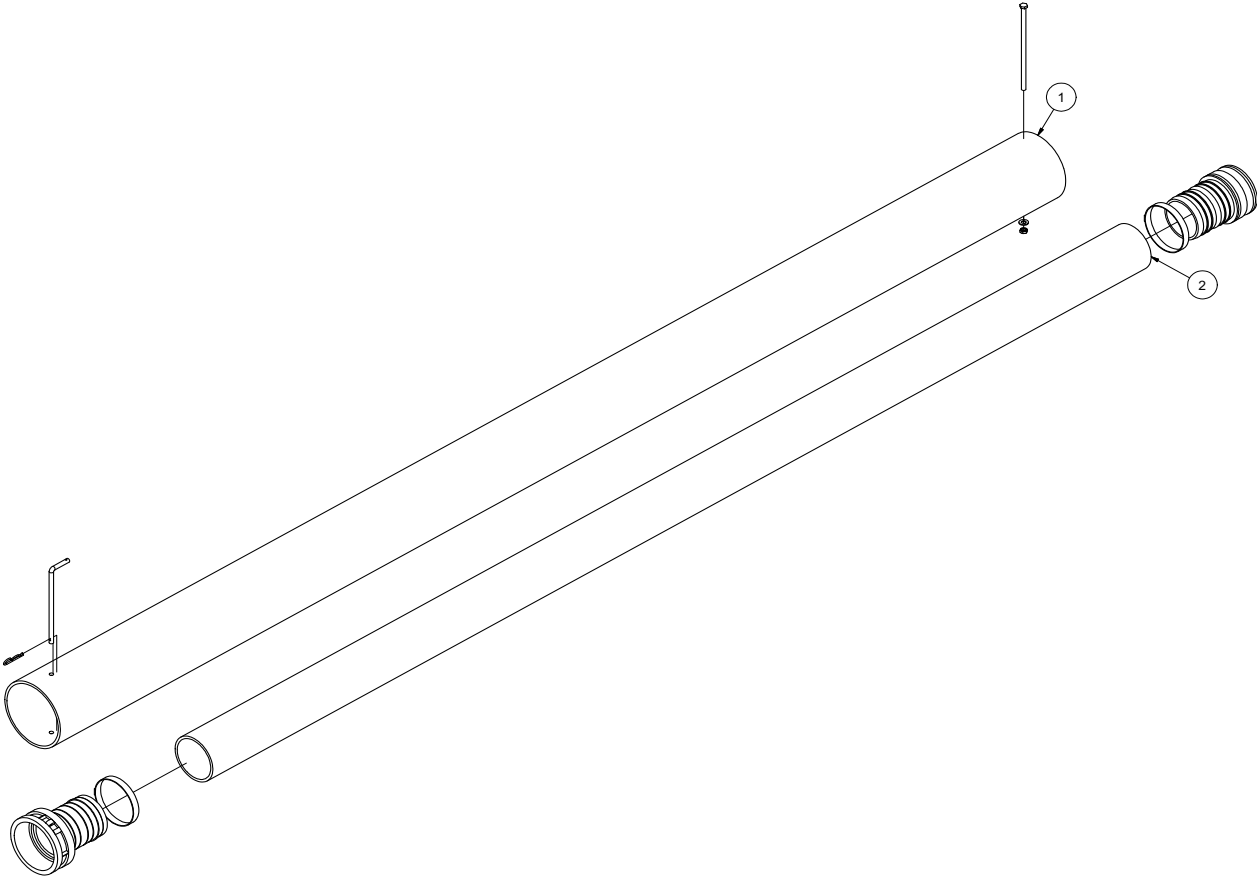
| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|------------|--|
| 1 | 1 | 8040790-1 | INNER SLIDER TUBE CHAN. DOWN |
| 2 | 1 | 8040790-2 | TOP WEAR PAD |
| 3 | 1 | 8040790-3 | BOTTOM WEAR PAD |
| 4 | 2 | 8040790-4 | SPACER BLOCK |
| 5 | 2 | 8040790-5 | DAMPER SHOCK |
| 6 | 1 | 8040790-6 | FRONT SHOCK PIN (ZINC PLATED) |
| 7 | 1 | 8040790-7 | OUTER CASE |
| 8 | 2 | 8040790-8 | CONNECTING PIN (ZINC PLATED) |
| 9 | 6 | 8040790-9 | 5/32" X 1-1/4" COTTER PIN |
| 10 | 1 | 8040790-10 | REAR SHOCK PIN (ZINC PLATED) |
| 11 | 1 | 8040790-11 | EMERGENCY LEVER SPRING (ZINC PLATED) |
| 12 | 2 | 8040790-12 | 5/16" EXTERNAL TOOTH LOCK WASHER |
| 13 | 2 | 8040790-13 | 5/16"-18 UNC X 5/8" HEX HEAD BOLT GR.5 |
| 14 | 4 | 8040790-14 | 1/4"-20 UNC X 2" HEX HEAD BOLT GR.5 |
| 15 | 4 | 8040790-15 | 1/4" LOCK WASHER |
| 16 | 1 | 8040790-16 | EMERGENCY LEVER (ZINC PLATED) |
| 17 | 1 | 8040790-17 | PUSH ROD ASSEMBLY |
| 18 | 1 | 8040790-18 | COMPOSITE MASTER CYLINDER (DRUM BRAKES) |
| 19 | 1 | 8040790-19 | REPLACEMENT MASTER CYL. GASKET ONLY |
| 20 | 1 | 8040790-20 | 1/8" PIPE-3/16" FITTING W/ORIFICE (DRUM) |
| 21 | 1 | 8040790-21 | MASTER CYLINDER CAP W/DIAPHRAGM AND O-RING |
| 22 | 1 | 8040790-22 | 3/32" CABLE WITH HOOKS (BOTH ENDS) |
| 23 | 1 | 8040790-23 | LEVER GUIDE (ZINC PLATED) |
| 24 | 1 | 8040790-24 | MASTER CYL. PROTECTIVE BOOT |
| 25 | 4 | 8040790-25 | 1/4"-20 UNC HEX NUTS |

051408

VACASSY948

HOSES

4"



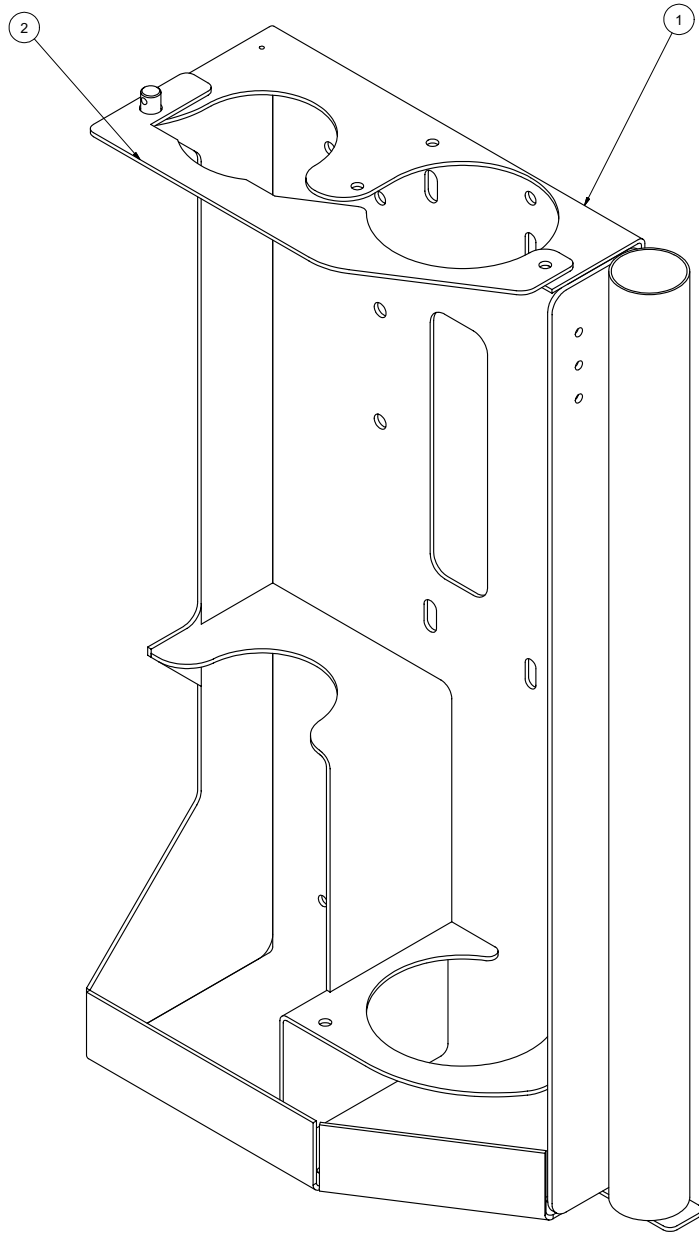
HOSES

4''

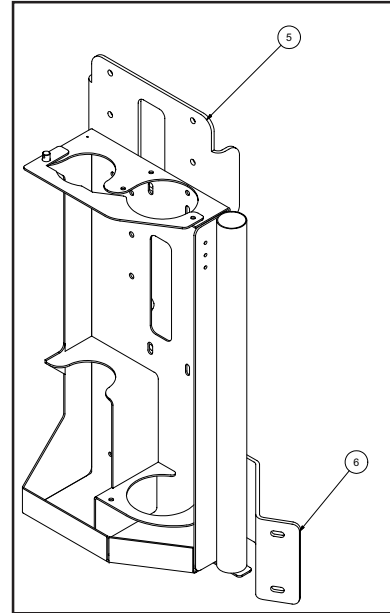
| ITEM | QTY | PART NO. | DESCRIPTION | |
|------|-----|----------|------------------------------|------------------------------|
| 1 | 1 | 8041102 | 6" PVC STORAGE TUBE 10' LG | |
| | 1 | U000626 | SCREW, HC .375-16 X 7.50" | |
| | 1 | 8041485 | LANYARD CABLE | |
| | 1 | 8043198 | HOSE STORAGE CLAMP | |
| | 2 | U200060 | WASHER, FLAT 3/8" | |
| | 2 | U100060 | NUT, HEX 3/8" | |
| | 1 | 8041101 | HOSE STORAGE RETAINING ROD | |
| | 1 | R700170 | R-CLIP, 1/2 - 5/8 SHANK | |
| | 2 | 1 | 8042310 | HOSE VAC KANAFLEX 4-112 |
| | | 1 | 8046444 | CAMLOCK, 4" AL FCAM X M BARB |
| 1 | | 8046443 | CAMLOCK, 4" AL MCAM X M BARB | |
| 2 | | 8030912 | CLAMP, 4.5" PUNCHLOK P18-S | |

Tool Rack Assembly

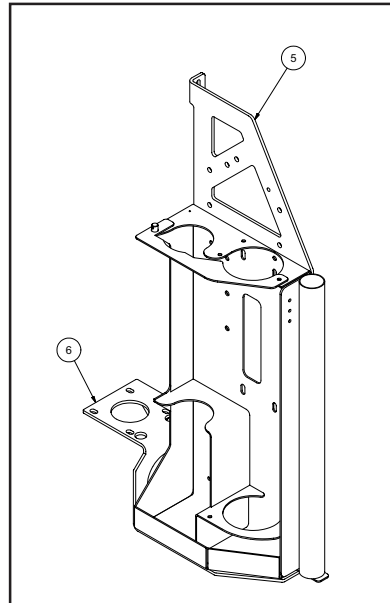
HD



I-BEAM TRAILER



SKID UNIT



100112-E

VACASSY758

Tool Rack Assembly

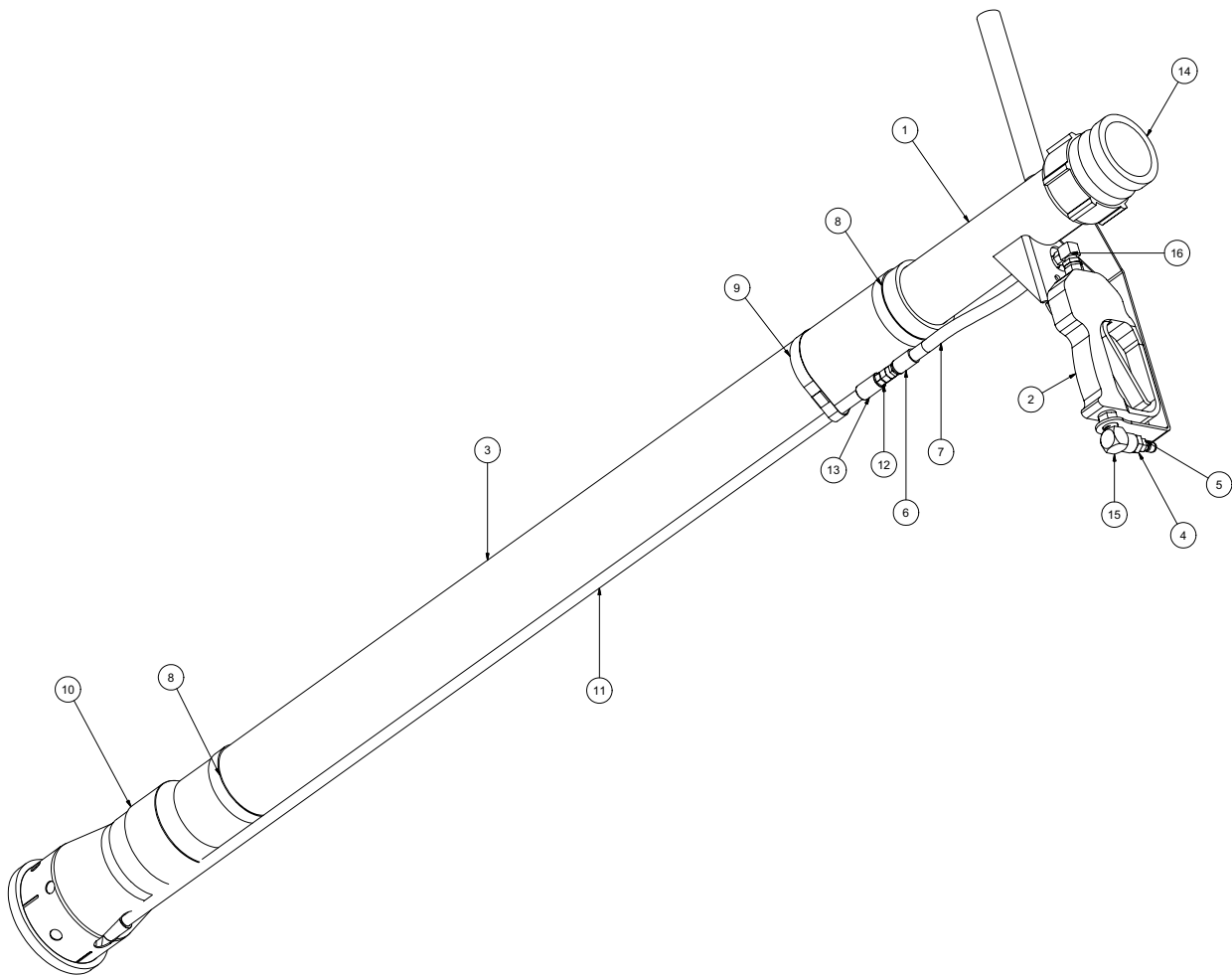
HD

| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|----------|--|
| 1 | 1 | 8040985 | TOOL RACK WELDMENT, HD |
| 2 | 1 | 8040989 | TOOL RACK CLOSURE, HD |
| | 1 | R700175 | R CLIP 7/8" |
| | 1 | 8041259 | STRAP, 10" |
| | 1 | 8041485 | LANYARD CABLE |
| | 1 | 8041244 | CLEVIS PIN 1/2" DIA. 3/4" |
| 3 | 1 | 8044818 | ANTIFREEZE BRACKET (I-BEAM TRAILER) |
| | 4 | U000020 | SCREW, HC 5/16 - 18 X 1.00" |
| | 4 | U000180 | SCREW, HC 5/16 - 18 X .750" |
| | 16 | U200040 | WASHER, FLAT 5/16" |
| | 8 | U210041 | NUT, LOCK, NY 5/16" |
| 4 | 1 | 8044817 | TOOL RACK BRACKET (I-BEAM TRAILER) |
| | 3 | U000420 | SCREW, HC .375 - 16 X 1.00 |
| | 3 | U120110 | NUT, LOCK .375 - 16 |
| | 6 | U200600 | WASHER, FLAT .375 |
| 5 | 1 | 8041780 | ENCLOSURE STIFFENER BRACE (SKID UNITS) |
| | 4 | U000040 | SCREW, HC 1/4"-20 X .750" |
| | 8 | U200020 | WASHER, FLAT .250" |
| | 4 | U120100 | NUT, LOCK .250" |
| 6 | 1 | 8043601 | TOOL RACK BRACKET - VK (SKID UNITS) |
| | 4 | U000420 | SCREW, HC .375"-16 X 1.00" |
| | 8 | U200060 | WASHER, FLAT .375" |
| | 4 | U120110 | NUT, LOCK .375-16 |
| | 2 | U000040 | SCREW, HC 1/4"-20 X .750" |
| | 4 | U200020 | WASHER, FLAT .250" |
| | 2 | U120100 | NUT, LOCK .250" |
| * | 1 | 8045610 | TOOL RACK 3" TOP INSERT |
| * | 1 | 8045609 | TOOL RACK 3" BOTTOM INSERT |

* NOT SHOWN

Tools (Option)

HD Reduction Tool



100313-E

VACASSY707

Tools (Option)

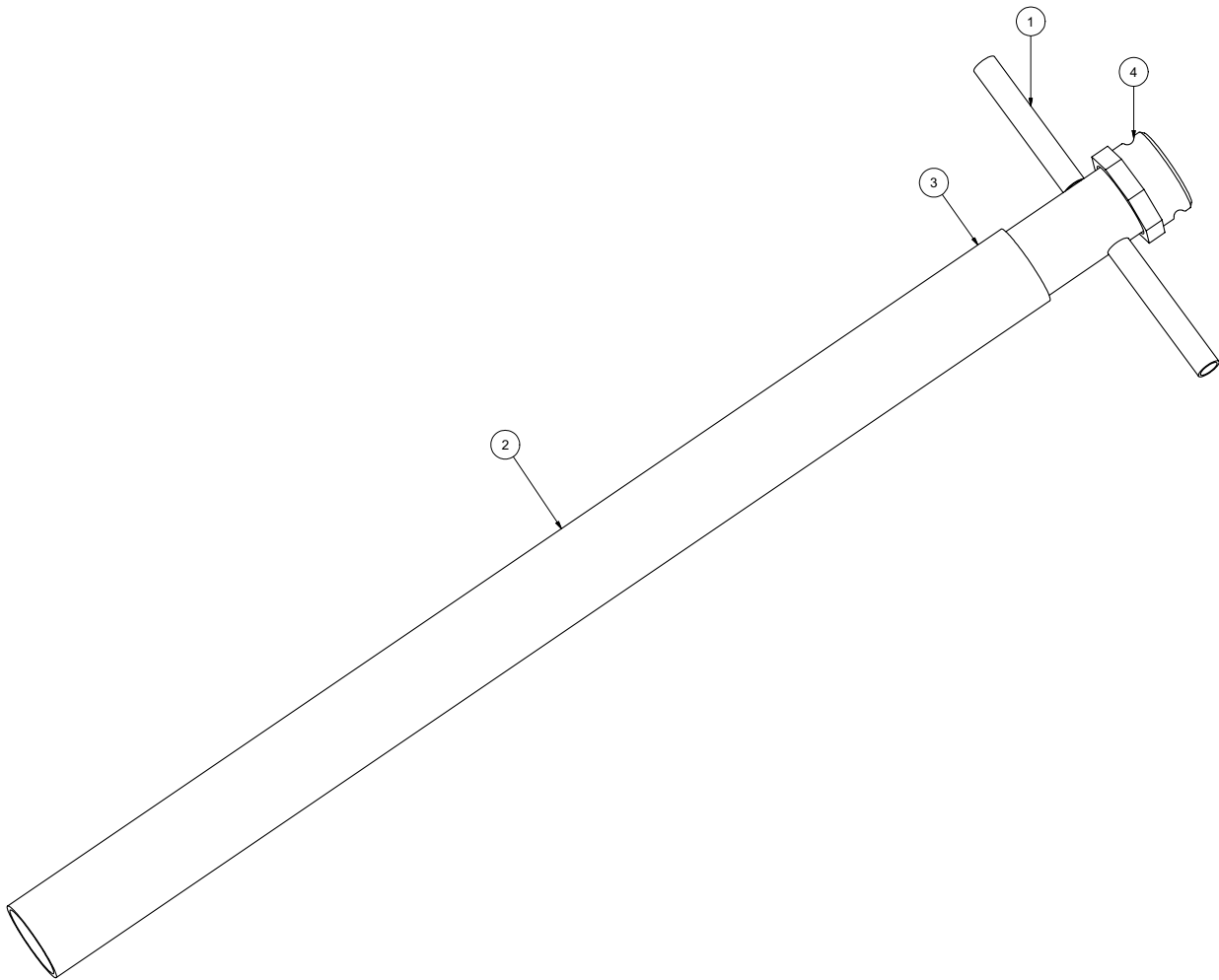
HD Reduction Tool

| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|----------|----------------------------------|
| - | - | 8043115 | TOOL VAC REDUCTION HD COMPLETE |
| 1 | 1 | 8042862 | TOOL VAC HEAD ASSY 3" |
| 2 | 1 | 8048567 | STRAIGHT SPRAY GUN |
| 3 | 1 | 8042811 | TOOL VAC REDUCTION PVC 3" X 48" |
| 4 | 1 | T400023 | UNION 6MP 4FP |
| 5 | 1 | 8030486 | WATER QD 1/4 MNPT SS |
| 6 | 2 | T320030 | FITTING, HOSE 4HO 4FJ |
| 7 | 1 | 8031278 | HOSE ASSEMBLY REDUCTION TOOL |
| 8 | 2 | 8030244 | VAC CLAMP BAND 3 1/2" PUNCHLOCK |
| 9 | 1 | 8030244 | VAC CLAMP BAND 3 1/2" PUNCHLOCK |
| 10 | 1 | 8041099 | TOOL VAC REDUCTION HD LOWER ASSY |
| 11 | 1 | 8043764 | VAC WATER SUPPLY TUBE |
| 12 | 1 | T400020 | UNION 1/4" MP-1/4" MJ STRAIGHT |
| 13 | 2 | T422010 | COUPLING,PIPE 1/4"FP |
| 14 | 1 | 8030391 | BANJO 3" MALE 3" FNPT |
| 15 | 1 | T401065 | ELBOW, 3/8 MP - 3/8 FP |
| 16 | 1 | T401100 | ELBOW 4MP 4MJ 90 |
| * | 2 | 8030370 | REDUCTION TOOL NOZZLE |
| * | 2 | 8031268 | REDUCTION TOOL NOZZLE 45 DEG |

* NOT SHOWN

Tools

4" Suction Tool



072308

VACASSY710

Tools

4" Suction Tool

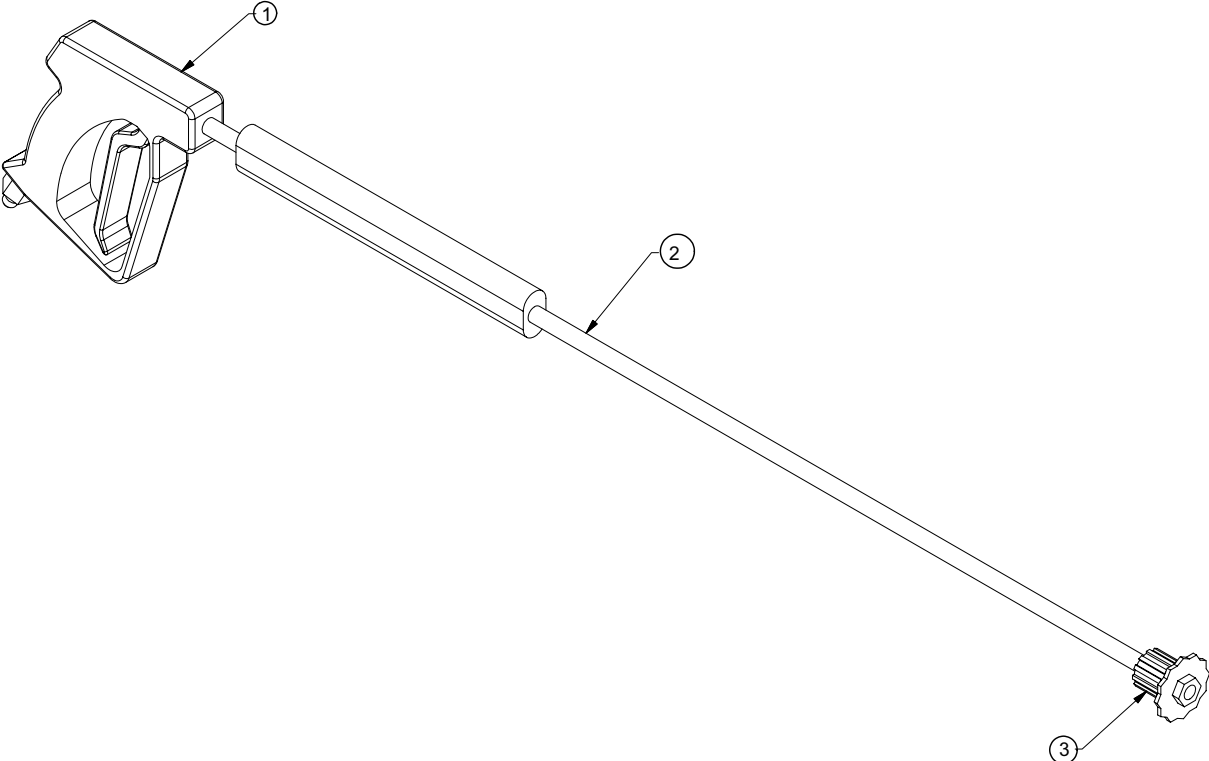
| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|---------|------------------------------|
| | 1 | 8040983 | TOOL VAC SUCTION 4" COMPLETE |
| 1 | 1 | 8040981 | TOOL VAC HANDLE ASSEMBLY 4" |
| 2 | 1 | 8040982 | PVC VACUUM TUBE 4" |
| 3 | 1 | 8030912 | CLAMP, 4.5" PUNCHLOK |
| 4 | 1 | 8030844 | COUPLING, 4" BANJO |

072308

VACASSY710

Tools

Wash Wand



031814-E

VACASSY711

Tools

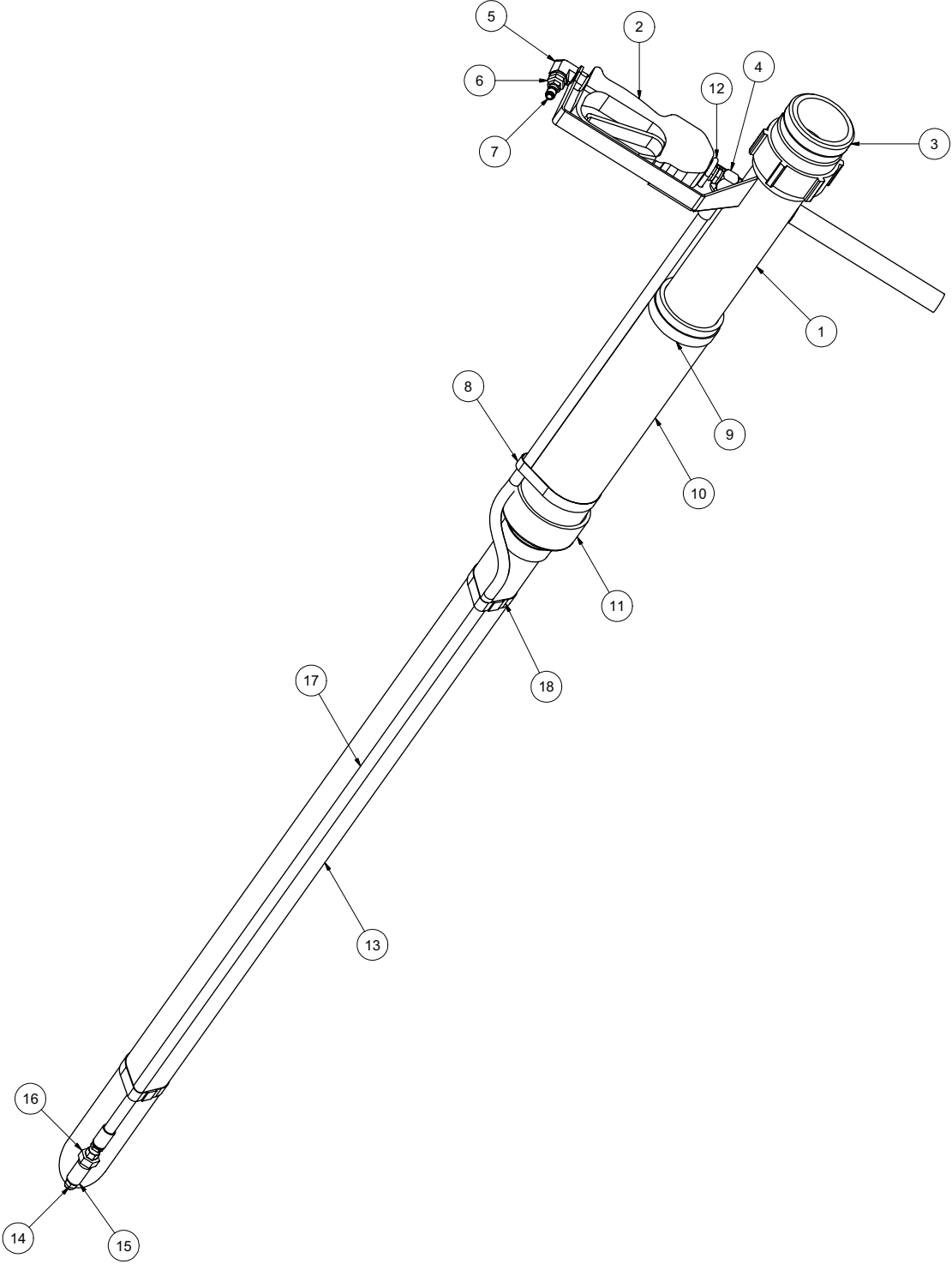
Wash Wand

| Item | Qty | Number | Description |
|------|-----|---------|-------------------------------|
| 1 | 1 | 8030348 | TOOL VAC SPRAY WAND COMPLETE |
| 2 | 1 | 8030928 | TRIGGERASSEMBLY |
| 3 | 1 | 8030847 | WAND |
| | | 8031303 | NOZZLE,#10 40 DEGREE FOR WAND |

031814-E

VACASSY711

Valve Box Cleanout Tool



101812-E

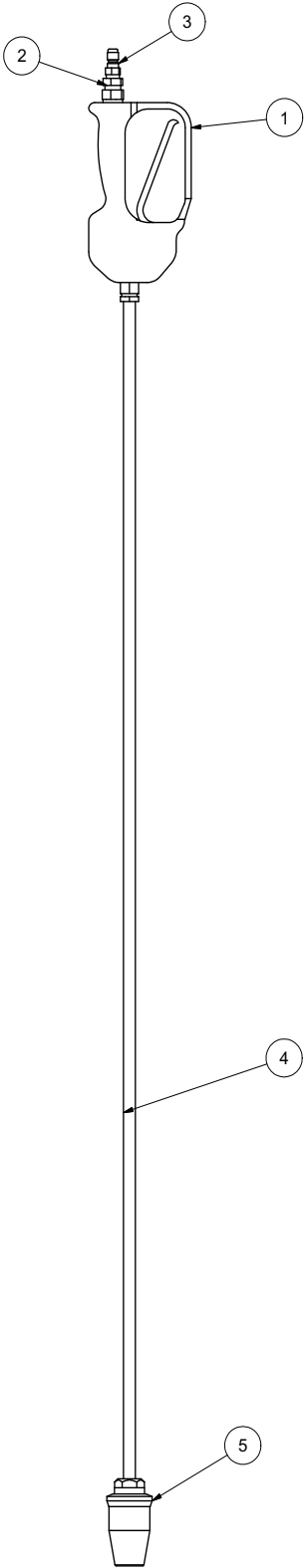
VACASSY714

Valve Box Cleanout Tool

| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|----------|---------------------------------------|
| | 1 | 8043384 | VAC TOOL VALVEBOX CLEANOUT COMPLETE |
| 1 | 1 | 8042862 | REDUCTION TOOL HEAD WELD'T |
| 2 | 1 | 8048567 | STRAIGHT SPRAY GUN |
| 3 | 1 | 8030391 | BANJO 3" MALE FNPT |
| 4 | 1 | T401100 | ELBOW 4MP 4MJ 90 |
| 5 | 1 | T401065 | ELBOW, 3/8 MP - 3/8 FP |
| 6 | 1 | T400023 | REDUCER 6MP 4FP |
| 7 | 1 | 8030486 | WATER QD 1/4 MNPT SS |
| 8 | 1 | 8042855 | CLAMP HOSE T-BOLT 375 |
| 9 | 1 | 8042605 | CLAMP HOSE T-BOLT 350 |
| 10 | 1 | 8044096 | PVC 3" DIA X 9" LONG |
| 11 | 1 | 8030669 | REDUCER PVC 3" TO 2" SLIP ON |
| 12 | 1 | U010019 | U-BOLT 1_4-20 X 3_4 WIDE X 2 1_4 LONG |
| 13 | 1 | 8044097 | PVC 2" DIA X 42.5" LG |
| 14 | 1 | 8031246 | NOZZLE, .100 X 0 DEG |
| 15 | 1 | T422010 | COUPLING 1/4"FP |
| 16 | 1 | U400020 | UNION, 1/4" MP - 1/4" MJ |
| 17 | 1 | 8044098 | HOSE ASSY VALVE BOX CLEANOUT TOOL |
| 18 | 2 | 8045316 | CLAMP, HOSE T-BOLT 275 |

Tools

Rotary Lance



Tools

Rotary Lance

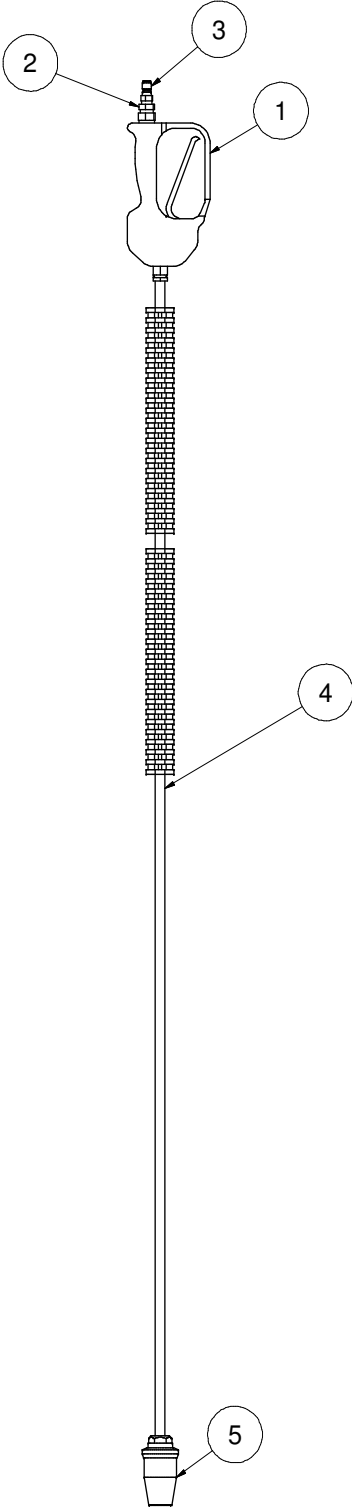
| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|----------|--------------------------------|
| * | | 8043119 | TOOL VAC ROTARY LANCE COMPLETE |
| 1 | 1 | 8048567 | STRAIGHT SPRAY GUN |
| 2 | 1 | T400023 | UNION 6MP-4FP |
| 3 | 1 | 8030486 | WATER QD 1/4MNPT SS |
| 4 | 1 | 8043765 | TUBE,CHROME 1/4NPT ENDS 60" |
| 5 | 1 | 8048739 | ROTARY NOZZLE .055 |

031814-E

VACASSY716

Tools

Hot Box Rotary Lance



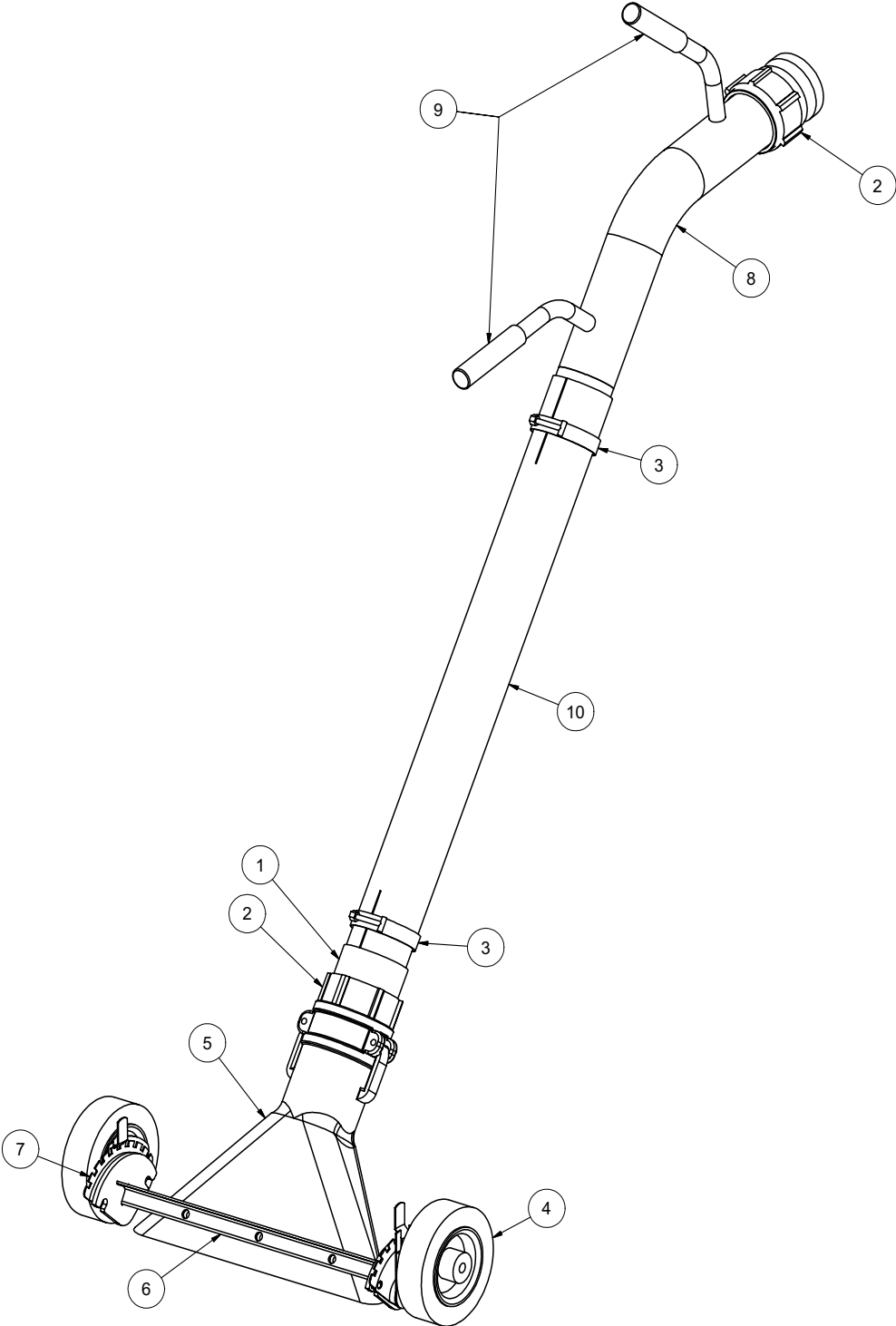
Tools

Hot Box Rotary Lance

| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|----------|--|
| * | | 8048192 | TOOL VAC ROTARY LANCE for HOT BOX COMPLETE |
| 1 | 1 | 8048567 | STRAIGHT SPRAY GUN |
| 2 | 1 | T400023 | UNION 6MP-4FP |
| 3 | 1 | 8030486 | WATER QD 1/4MNPT SS |
| 4 | 1 | 8031394 | WAND, 59" LONG |
| 5 | 1 | 8048739 | ROTARY NOZZLE .055 |

Tools

Lawn Sweeper 3''



101512-E

VACASSY713

Tools

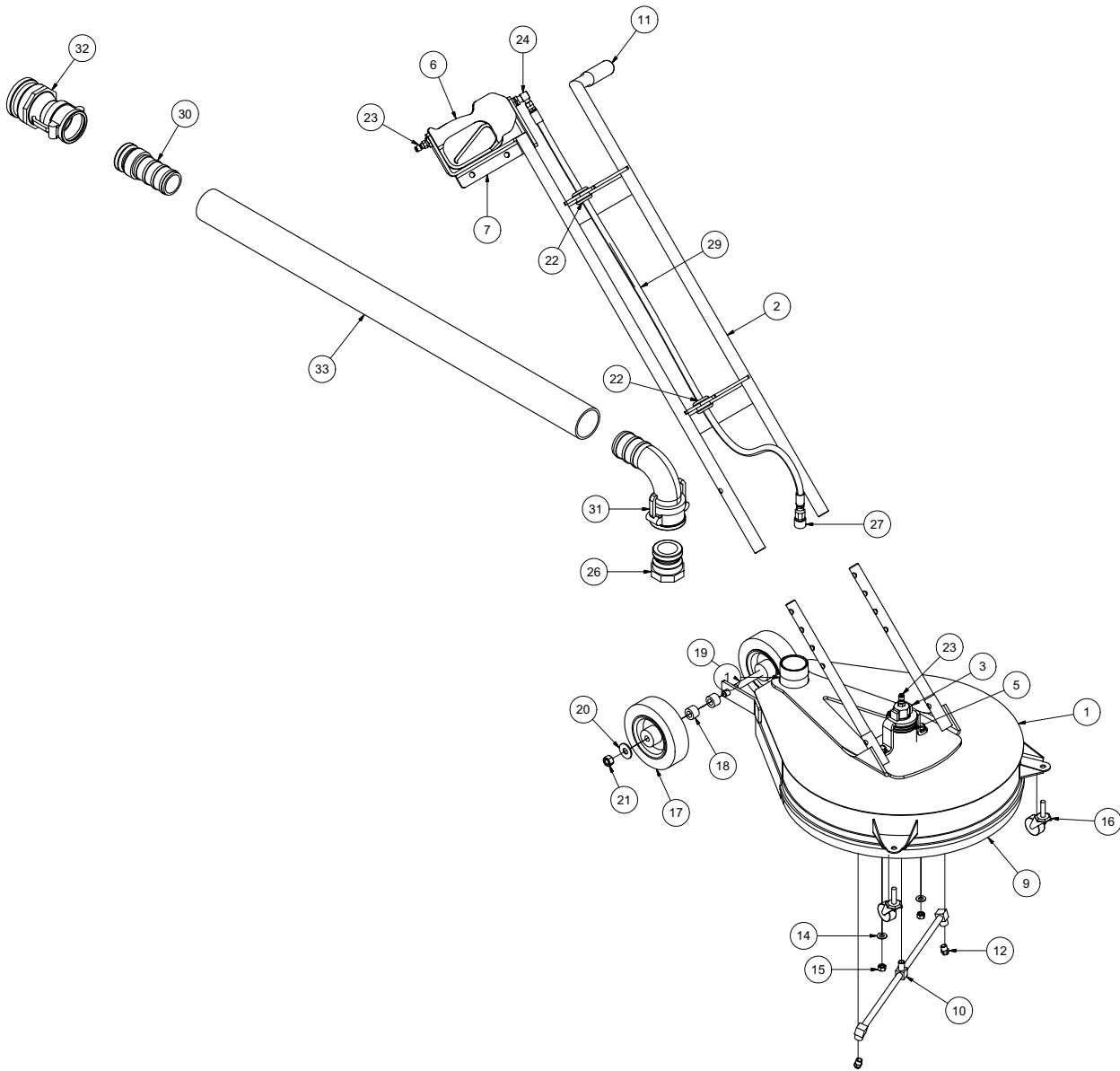
Lawn Sweeper 3''

| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|---------|----------------------------------|
| | 1 | 8043935 | VAC TOOL LAWN SWEEPER COMPLETE |
| 1 | 1 | 8030287 | 3" HOSE X 3" MNPT ADAPTER |
| 2 | 2 | 8030391 | BANJO 3" MALE 3" FNPT |
| 3 | 2 | 8042605 | CLAMP T-BOLT 3" (350) |
| 4 | 2 | 8043887 | WHEEL 6" PNEUMATIC |
| 5 | 1 | 8043925 | DUCKBILL 3" ALUMINUM |
| 6 | 1 | 8043928 | LS WHEEL WELDMENT |
| 7 | 1 | 8043931 | WHEEL ADJUSTERS (1 LEFT/1 RIGHT) |
| 8 | 1 | 8043933 | LS HANDLE WELDMENT |
| 9 | 2 | J300080 | HANDLE GRIP |
| 10 | 1 | 8043932 | PVC 3" X 30" |

101512-E

VACASSY713

Surface Cleaner



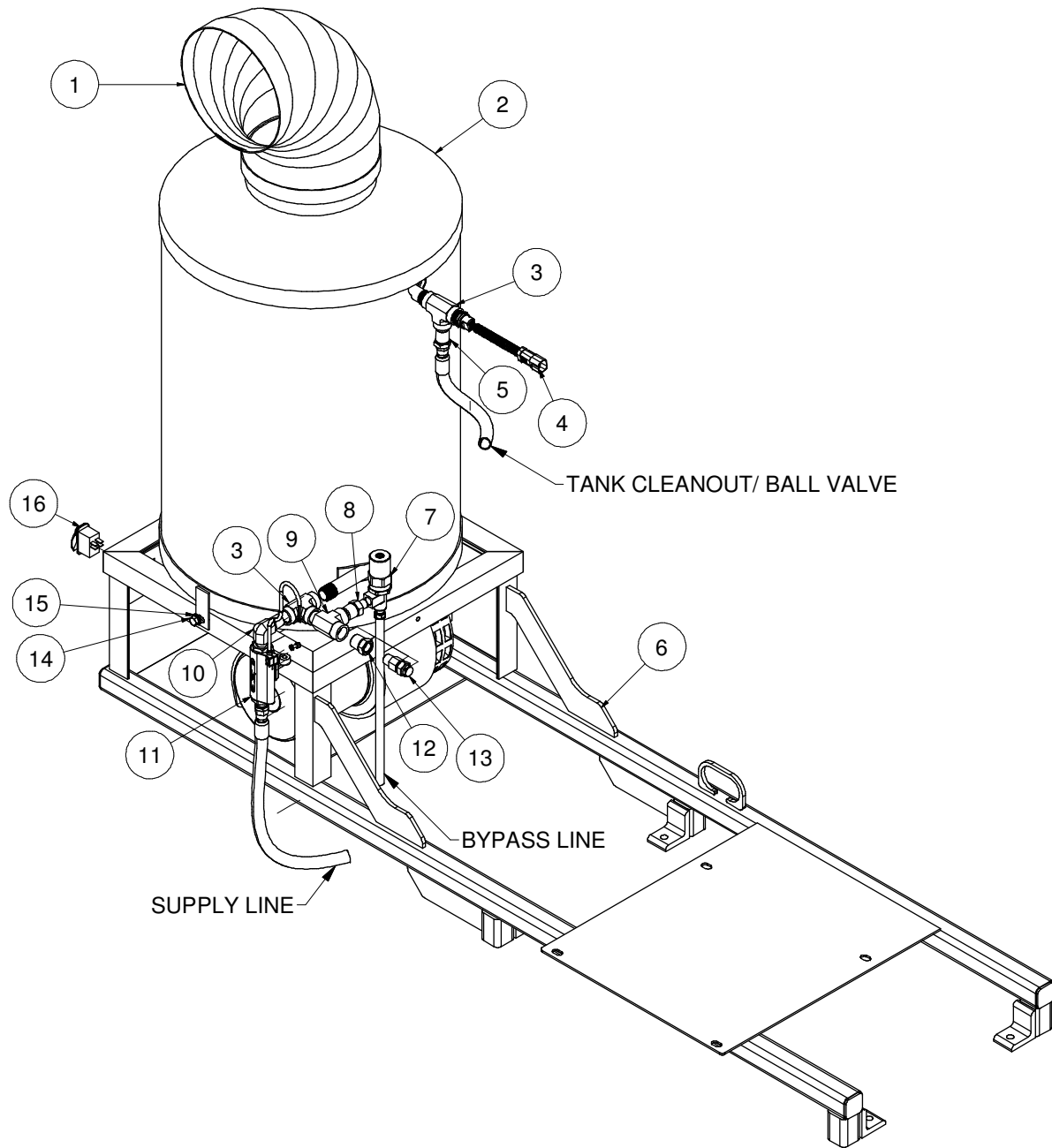
101812-E

VACASSY715

Surface Cleaner

| ITEM | QTY | PART NO. | DESCRIPTION |
|------|-----|----------|-----------------------------------|
| | 1 | 8043480 | VAC TOOL SURFACE CLEANER COMPLETE |
| 1 | 1 | 8041887 | SURFACE CLEANER - HEAD ASSY |
| 2 | 1 | 8042019 | HANDLE ASSY |
| 3 | 1 | 8041890 | ROTARY RETAINER |
| 4 | 2 | 8042022 | HANDLE ADJ. TUBE |
| 5 | 1 | 8042027 | ROTARY HEAD |
| 6 | 1 | 8048567 | STRAIGHT SPRAY GUN |
| 7 | 1 | 8042020 | GUN CAPTURE BRACKET |
| 8 | 1 | 8043467 | SQUEEGEE |
| 9 | 1 | 8042030 | FLEXIBLE BRUSH |
| 10 | 1 | 8042028 | ROTARY ARM |
| 11 | 1 | J300080 | GRIPHANDLE |
| 12 | 2 | 8031419 | NOZZLE, #4.0 25 DEG |
| 13 | 2 | U000420 | SCREW, HC 3/8-16 X 1.00 |
| 14 | 4 | U200600 | WASHER, FLAT 3/8" |
| 15 | 2 | U100060 | NUT, HEX 3/8-16 |
| 16 | 2 | 8043387 | SWIVEL CASTER 1 5/8" |
| 17 | 2 | 8043887 | WHEEL 6" PNEUMATIC |
| 18 | 2 | 8043591 | SURFACE CLEANER REAR WHEEL SPACER |
| 19 | 1 | U001060 | SCREW, HC 1/2-13 X 6.0 |
| 20 | 2 | U200100 | WASHER, FLAT 1/2" |
| 21 | 1 | U120120 | NUT, LOCK 1/2-13 |
| 22 | 2 | 8041686 | GROMMET 1"ID- 1 1/4"DOG-1/4"WO |
| 23 | 2 | 8030486 | WATER QD 1/4 MNPT SS |
| 24 | 1 | T401100 | ELBOW 4MP 4MJ 90 |
| 25 | 1 | T320030 | FITTING, HOSE 4HO 4FJ |
| 26 | 1 | 8043389 | ADAPTER M2" F THREAD |
| 27 | 1 | 8030526 | FITTING, QD WATER 1/4"F-1/4"FP |
| 28 | 1 | T320300 | FITTING, HOSE 4HO 4MP |
| 29 | 1 | 8044108 | HOSE VAC SURFACE CLEANER |
| 30 | 1 | 8043392 | ADAPTER M2" F THREAD |
| 31 | 1 | 8043391 | REDUCER COUPLER 2"F 90 DEG - 3"M |
| 32 | 1 | 8043395 | REDUCER COUPLER 2" X 3" ADAPTER |
| 33 | 1 | 8043398 | HOSE VAC CLEAR 2" |
| * | 2 | 8043397 | CLAMP VAC CLEAR HOSE 2" |
| * | 4 | U360020 | PIN, U-LOCK 3/8 X 1.5 |

Hot Box Assembly



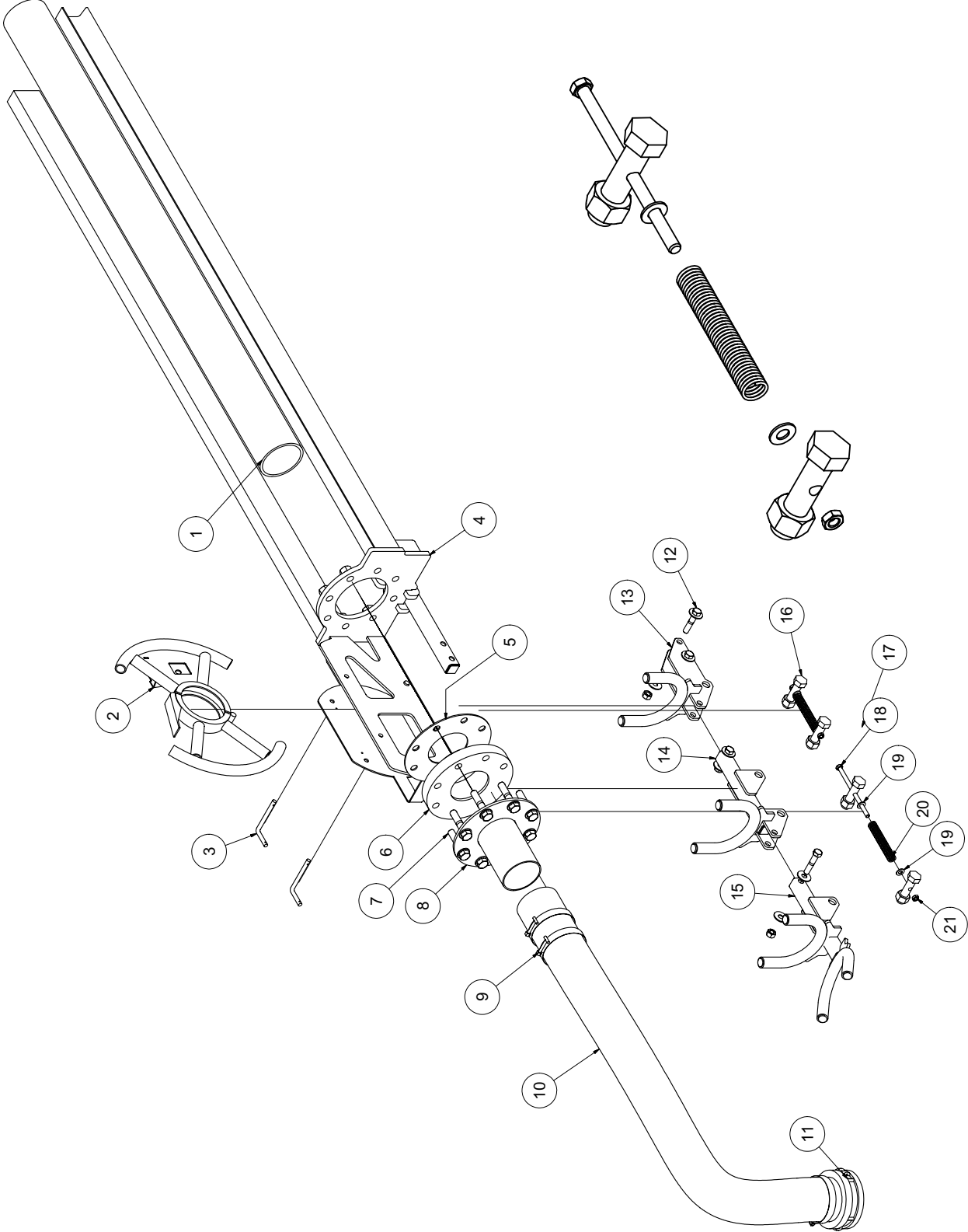
Hot Box Assembly

| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|---------|--|
| 1 | 1 | 8046535 | 8" ELBOW EXHAUST (AQUA-BLAST) |
| 2 | 1 | 8046448 | HOT BOX, VERTICAL |
| 3 | 2 | T402130 | ADAPTER, TEE 8FP - 8FP - 8FP GALV |
| 4 | 1 | 8048033 | TEMPERTURE SWITCH .50NPTM 100 & 165 DEG |
| 5 | 1 | 8031291 | ADAPTER STR. 8MP - 6MJ GALV. |
| 6 | 1 | 8046664 | AIR FILTER HOT BOX BRACKET LE |
| 7 | 1 | 8048030 | VALVE PRESSURE REGULATING 5075PSI 8GPM |
| 8 | 1 | T400123 | FITTING, 1/2"MP - 1/4"MP |
| 9 | 1 | T402156 | ADAPTER, TEE 8MP - 8MP - 8FP GALV |
| 10 | 1 | T401136 | ELBOW, 90 8MP - 6MP |
| 11 | 1 | 8047724 | SWITCH, FLOW 3/8FP, GRAVITY ACTUATED |
| 12 | 1 | T400024 | ADAPTER STR. 8MP - 6FP |
| 13 | 1 | 8046976 | VALVE PRESSURE RELIEF BURST DISK 5000PSI |
| 14 | 3 | U200020 | SCREW, HC 5/16" - 18 X 1.00 |
| 15 | 3 | U200040 | WASHER, FLAT 5/16" |
| 16 | 1 | X000271 | SWITCH, HIGH/LOW |
| * | 1 | J200062 | DECAL HOT BOX TEMP HI-LO |
| * | 1 | X200047 | HARNESS HOT BOX SWITCH SIDE |
| * | 1 | X200048 | HARNESS HOT BOX POWER SIDE |

* ITEM NOT SHOWN

EXTENSION ARM

BOOM



111413-E

VACASSY989

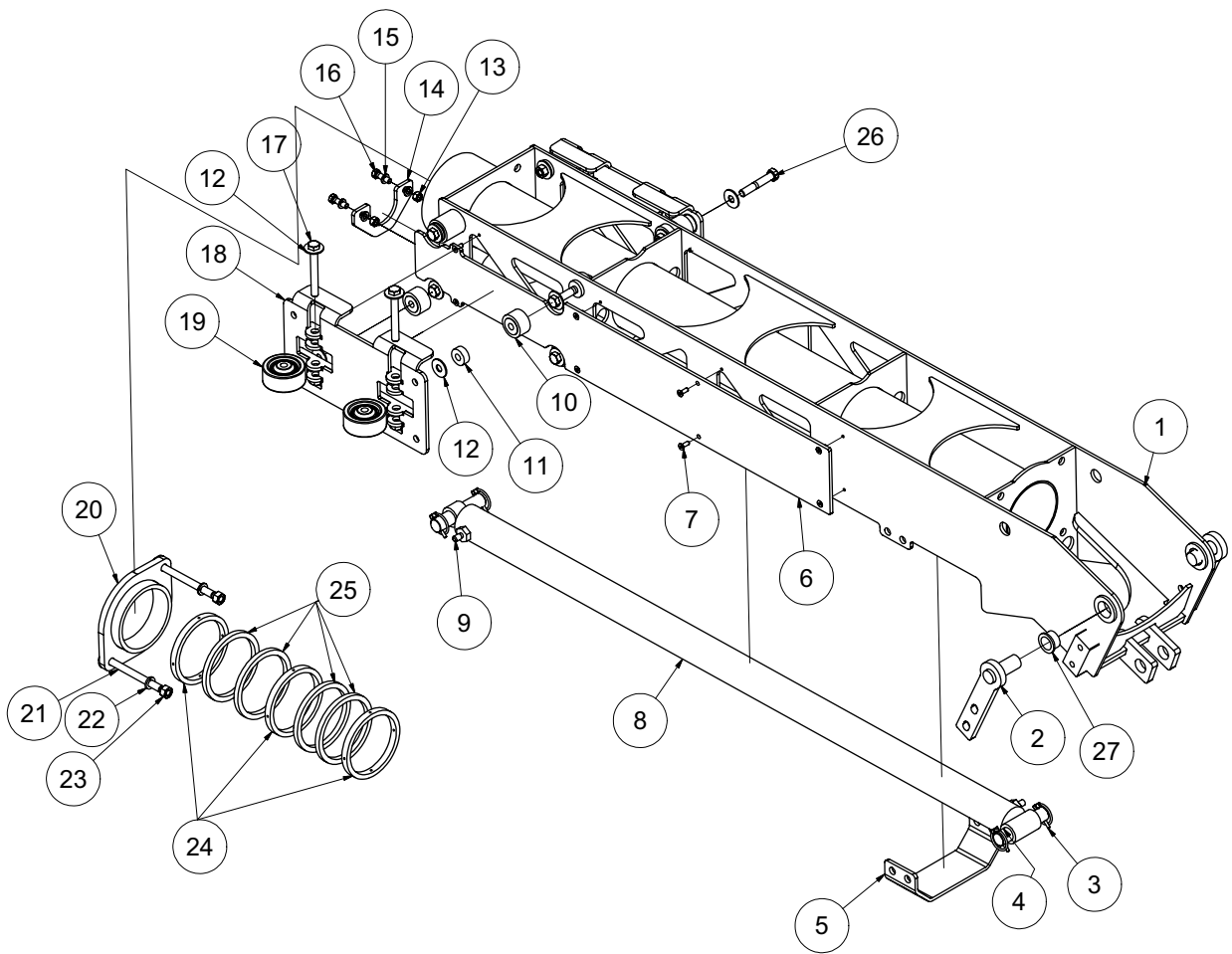
EXTENSION ARM

BOOM

| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|---------|-------------------------------------|
| 1 | 1 | 8042160 | BOOM - PVC TUBE 4 X 60" |
| 2 | 1 | 8043172 | BOOM HANDLE WELDMENT |
| | 1 | 8049245 | BOOM HANDLE WELDMENT (MEGA VAC'S) |
| | 2 | 8042971 | RUBBER STRIP |
| 3 | 2 | 8043947 | CAPTURE PIN |
| | 2 | R700160 | R-CLIP |
| | 2 | 8041485 | LANYARD CABLE |
| 4 | 1 | 8046591 | BOOM - EXTENSION ARM WELDMENT |
| 5 | 1 | 8041938 | GASKET, FLANGE 4" |
| 6 | 1 | 8041937 | 4" PVC FLANGE |
| 7 | 8 | U001250 | SCREW, HC 5/8" - 11 X 3.00" |
| | 16 | U200140 | WASHER, FLAT 5/8" |
| | 8 | U120020 | NUT, NYLOCK 5/8" - 11 |
| 8 | 1 | 8046638 | BOOM - HOSE MOUNT PLATE WELDMENT |
| 9 | 3 | 8042606 | CLAMP, T-BOLT 4" (450) |
| 10 | 1 | 8047019 | HOSE VAC AG SUCTION 4-45" |
| 11 | 1 | 8046444 | CAMLOCK, 4" MCAM X MBARB |
| 12 | 4 | U000900 | SCREW, 1/2" - 13 X 2 1/2" HHCS |
| | 8 | U200100 | WASHER, FLAT 1/2" |
| | 4 | U120120 | NUT, LOCK 1/2" - 13 |
| 13 | 1 | 8046612 | BOOM - END PIVOT WELDMENT # 3 |
| 14 | 1 | 8046603 | BOOM - END PIVOT WELDMENT # 1 |
| 15 | 1 | 8046606 | BOOM - END PIVOT WELDMENT # 2 |
| 16 | 4 | 8046636 | BOOM - SPRING BOLT |
| | 4 | U100200 | NUT, HEX 3/4" - 10 |
| 17 | 1 | 8046771 | SPRING, 3/8" - 5.00", 480lb per in |
| 18 | 2 | U000635 | SCREW, HC .375 - 16 X 6.50" ZP CR5 |
| 19 | 4 | U200600 | WASHER, FLAT 3/8" |
| 20 | 1 | 8046770 | SPRING, 3/8" X 5.00", 395 lb per in |
| 21 | 2 | U120110 | NUT, HEX LOCK |

PIVOT ARM

BOOM



081910-E

VACASSY989

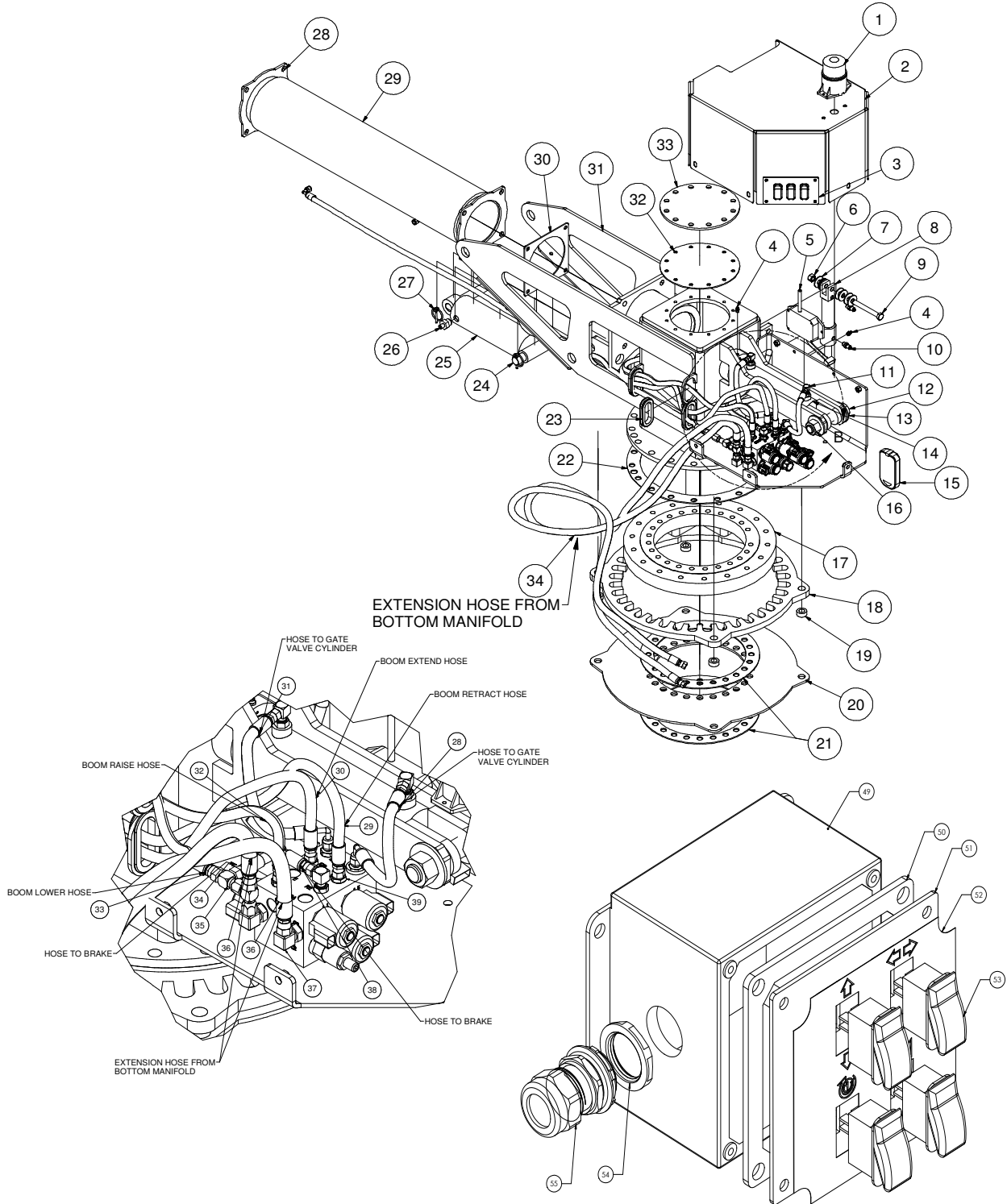
PIVOT ARM

BOOM

| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|---------|-------------------------------------|
| 1 | 1 | 8046582 | BOOM - PIVOT ARM WELDMENT |
| 2 | 2 | 8046634 | BOOM - PIVOT PIN WELDMENT |
| 3 | 4 | U340050 | PIN LINCH 3/16" X 1 9/16" |
| 4 | 2 | 8041990 | BOM - PIVOT CYLINDER ROD PIN |
| 5 | 1 | 8046635 | BOOM - CRADEL FOOT PLATE |
| 6 | 2 | 8041986 | BOOM - PIVOT ARM GUIDE SHEET |
| 7 | 16 | U030015 | SCREW, SFH 1/4-20 X .750 |
| 8 | 1 | 8041926 | BOOM - CYLINDER WX |
| 9 | 2 | T400611 | REDUCER, 1/2"MB - 1/4"MJ |
| 10 | 4 | W000055 | CAM YOKE ROLLER 1 3/4"DIA X 1.00" |
| 11 | 4 | 8046624 | BOOM - CAM SPACER |
| 12 | 14 | U200100 | WASHER, FLAT 1/2" |
| 13 | 2 | U100060 | NUT, HEX 3/8"-16 |
| 14 | 1 | 8041956 | BOOM - PIVOT ARM CYC RETAINER PLATE |
| 15 | 4 | U210060 | WASHER, LOCK 3/8" |
| 16 | 2 | U000440 | SCREW, HC 3/8"-16 X 1.25" |
| 17 | 4 | 8046773 | SCREW, BOOM EXT. CAPTURE PLATE |
| 18 | 2 | 8046627 | BOOM - EXT. CAPTURE PLATE WELDMENT |
| 19 | 4 | 8030226 | WHEEL 3.00"OD X 1.25" WIDE W / BRG |
| 20 | 1 | 8041963 | PACKING GLAND WELDMENT |
| 21 | 2 | U001020 | SCREW, HC .50"-13 X 5.50"ZP GR5 |
| 22 | 2 | U210111 | WASHER, LOCK 1/2" |
| 23 | 2 | U100120 | NUT, HEX 1/2-13 |
| 24 | 3 | 8041945 | SLEEVE PLASTIC |
| 25 | 4 | 8041947 | PACKING RING |
| 26 | 8 | U000940 | SCREW,HC .500-13X3.50 |
| | 16 | U200110 | WASHER, FLAT .500 |
| | 8 | U120120 | NUT, LOCK .500 - 13 |
| 27 | 2 | 8041883 | BUSHING, BRONZE FLANGED 1" |

TURRET

BOOM MANUAL ROTATION REV. FLOW



070115-E

VACASSY989-1

TURRET

BOOM MANUAL ROTATION REV. FLOW

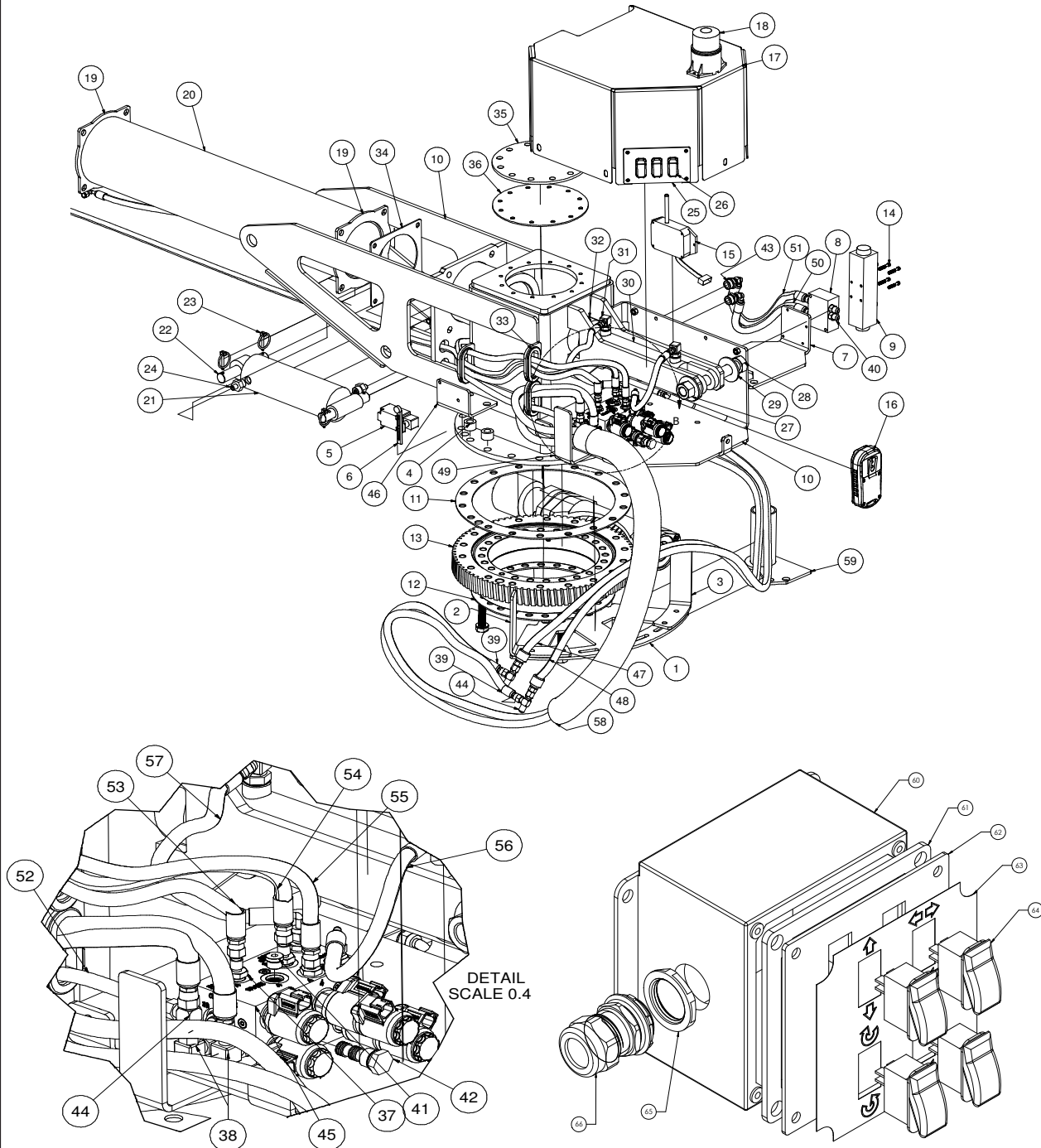
| ITEM | QTY | PART # | DESCRIPTION | ITEM | QTY | PART # | DESCRIPTION |
|------|-----|---------|---|------|-----|---------|--------------------------------|
| 1 | 1 | 8043139 | LIGHT STROBE LED DEUTSCH | | | | |
| 2 | 1 | 8046644 | BOOM - COVER WELDMENT | | | | |
| * | 5 | U000400 | SCREW, HC 3/8"-16 X .75 | 38 | 1 | 8047949 | HOSE ASSY VAC 4 - 11" ST-90 |
| * | 5 | U000440 | WASHER, FLAT 3/8" | 39 | 1 | 8047714 | HOSE ASSY VAC 4 - 38" ST-90 |
| 3 | 1 | 8046696 | PANEL CONTROL BOOM OVERRIDE | 40 | 1 | 8044745 | HOSE ASSY VAC 4 - 20" ST-90 |
| | 1 | X000274 | SWITCH, ROCKER (UP / DOWN) | 41 | 1 | 8047714 | HOSE ASSY VAC 4 - 38" ST-90 |
| | 1 | X000274 | SWITCH, ROCKER (EXTEND / RETRACT) | 42 | 1 | 8044745 | HOSE ASSY VAC 4 - 20 ST-90 |
| | 1 | X000273 | SWITCH, ROCKER (BRAKE) | 43 | 2 | T400039 | REDUCER, 6FJ - 4MJ |
| 4 | 2 | T500030 | GREASE FITTING 1/8"NPT STRAIGHT | 44 | 2 | T401250 | ELBOW, 90 3/8MB - 3/8" MJ |
| 5 | 1 | 8048310 | BOOM - RC RECEIVER (US) | 45 | 2 | T402153 | TEE 6MJ - 6MJ - 6FJ |
| 6 | 1 | U120120 | NUT, LOCK 1/2 - 13 | 46 | 1 | 8047331 | MANIFOLD ASSY BOOM (CROSS2) |
| 7 | 8 | U200100 | WASHER, FLAT 1/2" | 47 | 2 | T401265 | ELBOW, 90 1/2" MB - 1/4" MJ |
| 8 | 1 | 8043052 | CYLINDER, BRAKE | 48 | 5 | T400550 | REDUCER, 3/8" MB - 1/4" MJ |
| 9 | 1 | U000980 | SCREW, HEX 1/2 - 13 X 4.00" | 49 | 1 | 8092698 | BOX, BOOM CONTROLS |
| 10 | 2 | T400570 | UNION, 1/4" MB - 1/4" MJ | 50 | 1 | 8092678 | GASKET, BOOM CONTROL BOX |
| 11 | 2 | T401660 | ELBOW, 90 3/8" MB - 1/4" MJ | 51 | 1 | 8092677 | COVER PLATE |
| 12 | 1 | U001570 | SCREW, HC 1"-8 X 5.00 | 52 | 1 | J200210 | DECAL REOMOTE BOOM CONTROL |
| 13 | 2 | U200170 | WASHER, FLAT 1" - 2 1/2" OD | 53 | 4 | X000274 | SWITCH ROC. DPDT (ON)-OFF-(ON) |
| 14 | 1 | 8048198 | BOOM GATE VALVE CYLINDER | 54 | 1 | X000155 | CONDUIT LOCKNUT 1" |
| | 2 | W201020 | WIPER, CYLINDER ROD, 1 1/8" ROD | 55 | 1 | X000154 | CONNECTOR, STRAIN RELIEF 1" |
| | 1 | 8044480 | SEAL PLATE WELDMENT | | | | |
| | 1 | 8044482 | BOOM SHUTOFF SEAL | | | | |
| | 1 | 8044483 | BOOM SHUTOFF SEAL PLATE SHIELD | | | | |
| 15 | 1 | 8049250 | REMOTE CONTROL BOOM MAN. ROT. (US) | | | | |
| 16 | 1 | U120060 | NUT, LOCK NY 1" - 8 | | | | |
| 17 | 1 | 8042234 | SWIVEL BEARING | | | | |
| | 3 | T500020 | FITTING, GREASE .125 STRAIGHT (2 IN INNER RING, 1 IN OUTER RING) | | | | |
| | 18 | U001195 | SCREW, HC 5/8"-11 X 1 3/4" | | | | |
| | 23 | U001210 | SCREW, HC 5/8"-11 X 2 1/4" | | | | |
| | 41 | U200140 | WASHER, FLAT 5/8" | | | | |
| | 41 | U210140 | WASHER, LOCK 5/8" | | | | |
| 18 | 1 | 8046688 | BOOM MOUNT BRAKE RING | | | | |
| | 4 | U001900 | SCREW, HC 5/8"-11 X 2 1/2" | | | | |
| | 8 | U200140 | WASHER, FLAT 5/8" | | | | |
| | 4 | U120140 | NUT, LOCK 5/8"-11 | | | | |
| 19 | 4 | 8030315 | SKID - WATER TANK CLEVIS TUBE | | | | |
| 20 | 1 | 8046690 | BOOM - LOWER STOP RING | | | | |
| 21 | 2 | 8043781 | GASKET BOOMBRG BOT | | | | |
| 22 | 1 | 8043780 | GASKET BOOMBRG TOP | | | | |
| 23 | 4 | 8042812 | GROMMET 2" ID 3" OD 1/4" WOG TSM | | | | |
| 24 | 2 | 8041977 | BOOM - PIVOT CYLINDER BASE PIN | | | | |
| 25 | 1 | 8046597 | CYLINDER, HYD BOOM 3 X 6 | | | | |
| 26 | 2 | T400611 | UNION, 8MB - 4MJ | | | | |
| 27 | 4 | U340050 | PIN LINCH 3/16 X 1 9/16" | | | | |
| 28 | 2 | 8041958 | BOOM - FLEX HOSE ADAPTER WELDMENT | | | | |
| 29 | 1 | 8042103 | HOSE AG SUCTION 6 - 32 1/2" | | | | |
| | 2 | 8042104 | CLAMP, HOSE T-BOLT 6.75 | | | | |
| 30 | 2 | 8041988 | BOOM - FLANGE GASKET | | | | |
| 31 | 1 | 8046571 | BOOM TURRET WELDMENT | | | | |
| | 6 | U001281 | SCREW, HC .625 - 11 X 3.50" | | | | |
| | 6 | U120020 | NYLON LOCK NUT .625 - 11 | | | | |
| | 12 | U200140 | WASHER, FLAT .625 | | | | |
| 32 | 1 | 8044475 | BOOM TURRET SHUTOFF - CLEAN COVER GASKET | | | | |
| 33 | 1 | 8044471 | BOOM TURRET SHUTOFF - CLEAN COVER | | | | |
| 34 | 2 | 8049287 | HOSE ASSY VAC 6 - 50" ST-90 | | | | |
| 35 | 1 | 8047948 | HOSE ASSY VAC 4 - 9" ST-90 | | | | |
| 36 | 1 | 8047951 | HOSE ASSY VAC 4 - 95" ST-90 | | | | |
| 37 | 1 | 8047952 | HOSE ASSY VAC 4 - 121" ST-90 | | | | |

070115-E

VACASSY989-1

TURRET

BOOM HYD. ROTATION REV. FLOW



070115-E

VACASSY989-05 US

TURRET

BOOM HYD. ROTATION REV. FLOW

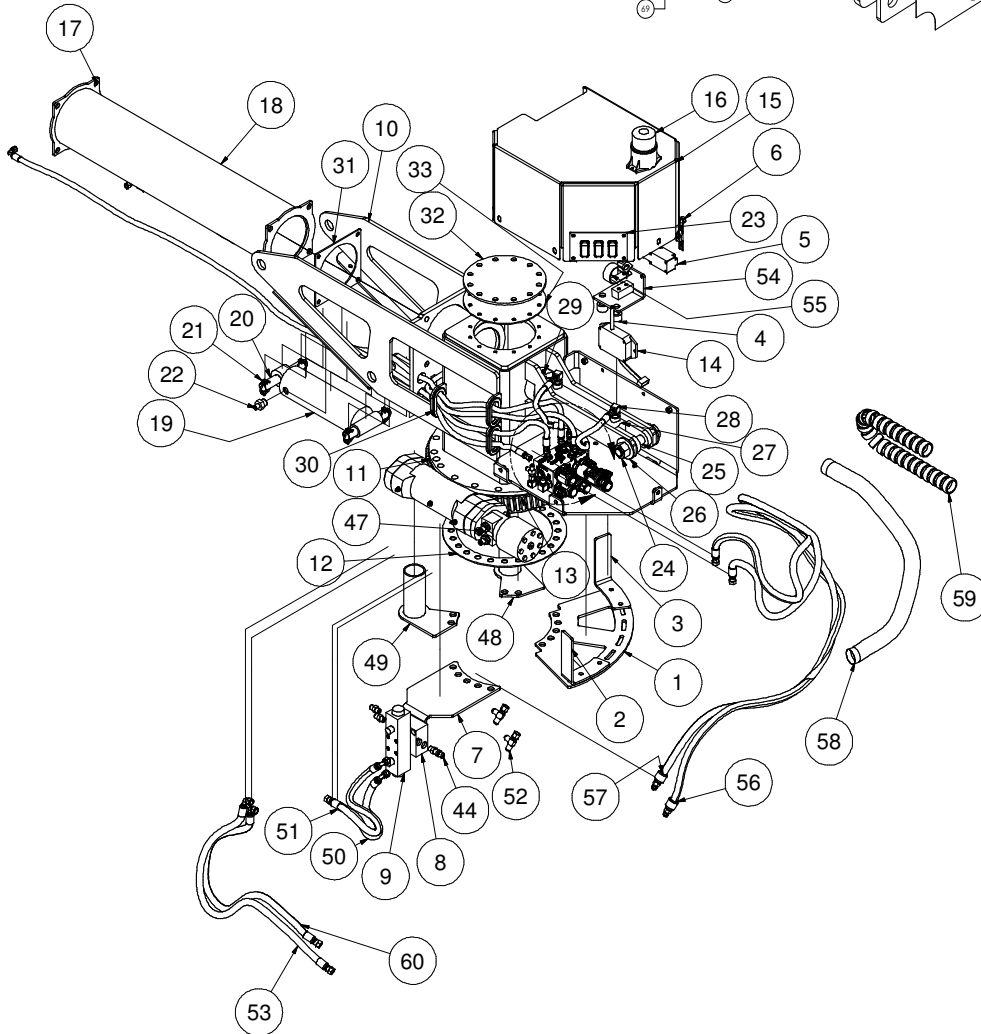
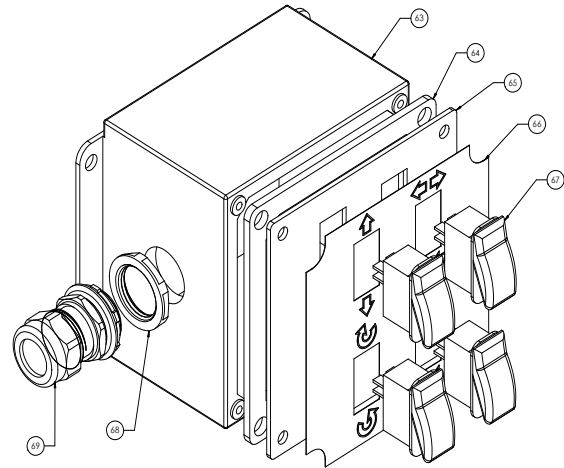
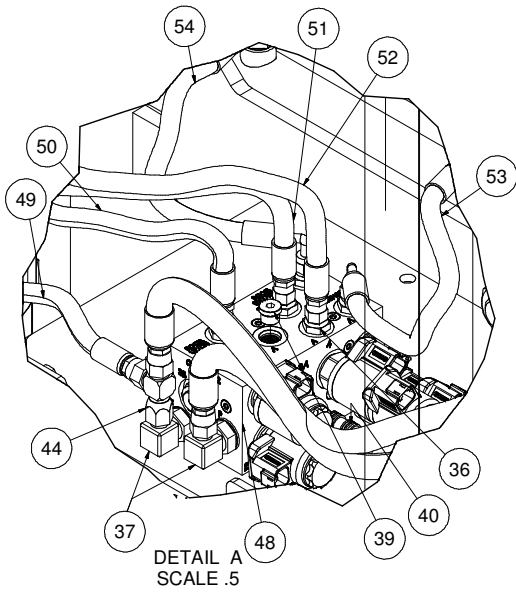
| ITEM | QTY | PART # | DESCRIPTION | ITEM | QTY | PART # | DESCRIPTION |
|------|-----|---------|---|------|-----|---------|--------------------------------|
| 1 | 1 | 8042351 | BOOM - ROTATION STOP BASE PLATE | | | | |
| 2 | 1 | 8042357 | BOOM - ROTATION STOP BRACKET | 43 | 2 | T400035 | REDUCER, 5/8"MB - 3/8"MJ |
| 3 | 1 | 8042359 | BOOM - ROTATION STOP BRACKET (OPP) | 44 | 1 | T402153 | TEE, 3/8"FJ - 3/8"MJ - 3/8"MJ |
| 4 | 2 | 8042376 | BOOM - LIMIT SWITCH BRACKET | 45 | 1 | 8047331 | MANIFOLD ASSY, BOOM (CROSS2 |
| 5 | 1 | 8042431 | SWITCH, LIMIT (BOOM) | 46 | 1 | 8042360 | BOOM - LIMIT SWITCH BRACKET |
| 6 | 1 | 8042432 | SWITCH LIMIT BOOM, ADJ LEVER | 47 | 1 | 8043664 | HOSE ASSY VAC 6 - 36ST-90 |
| 7 | 1 | 8042344 | TANK-BOOM MANIFOLD PLATE | 48 | 1 | 8048653 | HOSE ASSY VAC 6 - 38 ST-90 |
| 8 | 1 | 8049329 | MANIFOLD SUBPLATE D03 BOOM HR | 49 | 1 | 8049440 | BRACKET BOOM, HOSE BUNDLE |
| 9 | 1 | 8049328 | VALVE DIRECTIONAL BOOM HR D03 | 50 | 1 | 8049405 | HOSE ASSY VAC 6 - 8 1/2" ST-90 |
| 10 | 1 | 8048371 | BOOM TURRET WELDMNT | 51 | 1 | 8049406 | HOSE ASSY VAC 6 - 9 1/2" ST-90 |
| | 6 | U001281 | SCREW, HC .625 - 11 X 3.50" | 52 | 1 | 8047714 | HOSE ASSY VAC 4 - 38" ST-90 |
| | 6 | U120020 | NYLON LOCK NUT .625 - 11 | 53 | 1 | 8047714 | HOSE ASSY VAC 4 - 38" ST-90 |
| | 12 | U200140 | WASHER, FLAT .625 | 54 | 1 | 8049374 | HOSE ASSY VAC 4 - 120" ST-90 |
| 11 | 1 | 8043780 | GASKET BOOMBRG TOP | 55 | 1 | 8047951 | HOSE ASSY VAC 4 - 95" ST-90 |
| 12 | 2 | 8043781 | GASKET BOOMBRG BOT | 56 | 1 | 8047948 | HOSE ASSY VAC 4 - 9" ST-90 |
| 13 | 1 | 8042231 | BEARING, BOOM HYD. ROT. ASSY | 57 | 1 | 8047949 | HOSE ASSY VAC 4 - 11" ST-90 |
| | 3 | T500020 | FITTING, GREASE .125 STRAIGHT (2 IN INNER RING, 1 IN OUTER RING) | 58 | 1 | 8049477 | HYD. HOSE WRAP 60" |
| | 18 | U001195 | SCREW, HC 5/8"-11 X 1 3/4" | 59 | 1 | 8049418 | BOOM-HOSE ROUTING BRACKET |
| | 23 | U001210 | SCREW, HC 5/8"-11 X 2 1/4" | 60 | 1 | 8092698 | BOX, BOOM CONTROLS |
| | 41 | U200140 | WASHER, FLAT 5/8" | 61 | 1 | 8092678 | GASKET, BOOM CONTROL BOX |
| | 41 | U210140 | WASHER, LOCK 5/8" | 62 | 1 | 8092677 | COVER PLATE |
| 14 | 4 | U010007 | SCREW, HSH #10-24 X 1.25 | 63 | 1 | J200210 | DECAL REOMOTE BOOM CONTROL |
| 15 | 1 | 8048611 | RECEIVER, BOOM HR BLACK | 64 | 4 | X000274 | SWITCH ROC.DPDT (ON)-OFF-(ON) |
| 16 | 1 | 8048601 | REMOTE CONTROL BOOM HR | 65 | 1 | X000155 | CONDUIT LOCKNUT 1" |
| 17 | 1 | 8046644 | BOOM - COVER WELDMNT | 66 | 1 | X000154 | CONNECTOR, STRAIN RELIEF 1" |
| * | 5 | U000400 | SCREW, HC 3/8"-16 X .75 | | | | |
| * | 5 | U000440 | WASHER, FLAT 3/8" | * | 20 | U001325 | SCREW,HC .625-11 X 4.25" GR5 |
| 18 | 1 | 8043139 | LIGHT STROBE LED DEUTSCH | | | | |
| 19 | 2 | 8041958 | BOOM - FLEX HOSE ADAPTER WELDMNT | | | | |
| 20 | 1 | 8046758 | BOOM HOSE, 6 - 32 1/2" | | | | |
| | 2 | 8042104 | CLAMP, HOSE T-BOLT 6.75 | | | | |
| 21 | 1 | 8046597 | CYLINDER, HYD BOOM 3 X 6 | | | | |
| 22 | 2 | 8041977 | BOOM - PIVOT CYLINDER BASE PIN | | | | |
| 23 | 4 | U340050 | PIN LINCH 3/16 X 1 9/16" | | | | |
| 24 | 2 | T400611 | UNION, 8MB - 4MJ | | | | |
| 25 | 1 | 8046696 | PANEL CONTROL BOOM OVERRIDE | | | | |
| 26 | 1 | X000274 | SWITCH, ROCKER (UP / DOWN) | | | | |
| | 1 | X000274 | SWITCH, ROCKER (EXTEND / RETRACT) | | | | |
| | 1 | X000273 | SWITCH, ROCKER (BRAKE) | | | | |
| 27 | 1 | U120060 | NUT, LOCK NY 1 - 8 | | | | |
| 28 | 1 | U001570 | SCREW, HC 1"-8 X 5.00 | | | | |
| 29 | 2 | U200170 | WASHER, FLAT 1" - 2 1/2"OD | | | | |
| 30 | 1 | 8048198 | BOOM GATE VALVE CYLINDER | | | | |
| | 2 | W201020 | WIPER, CYLINDER ROD, 1 1/8" ROD | | | | |
| | 1 | 8044480 | SEAL PLATE WELDMNT | | | | |
| | 1 | 8044482 | BOOM SHUTOFF SEAL | | | | |
| | 1 | 8044483 | BOOM SHUTOFF SEAL PLATE SHIELD | | | | |
| 31 | 2 | T401660 | ELBOW, 90 3/8"MB - 3/8"MJ | | | | |
| 32 | 2 | T500030 | GREASE FITTING 1/8"NPT STRAIGHT | | | | |
| 33 | 4 | 8042812 | GROMMET, 2"ID 3"OD 1/4"WOG | | | | |
| 34 | 2 | 8041988 | BOOM - FLANGE GASKET | | | | |
| 35 | 1 | 8044471 | BOOM TURRET SHUTOFF - CLEAN COVER | | | | |
| 36 | 1 | 8044475 | BOOM TURRET SHUTOFF - CLEAN COVER GASKET | | | | |
| 37 | 5 | T400550 | REDUCER, 3/8"MB - 1/4"MJ | | | | |
| 38 | 2 | T401250 | ELBOW, 90 3/8"MB - 3/8"MJ | | | | |
| 39 | 2 | 8044133 | HOSE ASSY VAC 6-120" ST-ST | | | | |
| 40 | 4 | T400037 | UNION, 6MB - 6MJ | | | | |
| 41 | 1 | T405092 | PLUG, 3/8"MB-HEX SOCKET | | | | |
| 42 | 1 | 8049370 | PLUG CAVITY #8 3-WAY | | | | |

070115-E

VACASSY989-05 US

TURRET

AUS. BOOM HYD. ROTATION REV. FLOW



070115-E

VACASSY989-05 AUS

TURRET

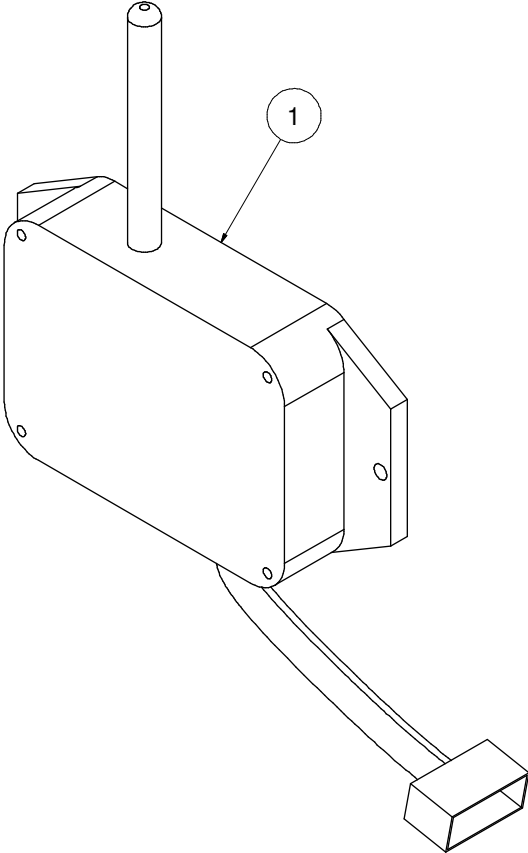
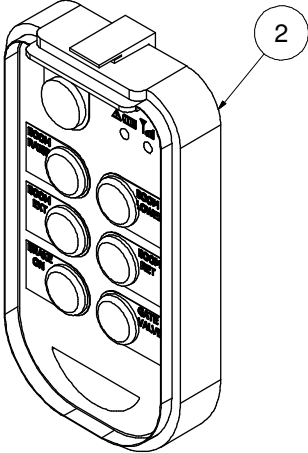
AUS. BOOM HYD. ROTATION REV. FLOW

| ITEM | QTY | PART # | DESCRIPTION | ITEM | QTY | PART # | DESCRIPTION |
|------|-----|---------|---|------|-----|---------|-------------------------------|
| 1 | 1 | 8042351 | BOOM - ROTATION STOP BASE PLATE | | | | |
| 2 | 1 | 8042357 | BOOM - ROTATION STOP BRACKET | | | | |
| 3 | 1 | 8042359 | BOOM - ROTATION STOP BRACKET (OPP) | | | | |
| 4 | 2 | 8042376 | BOOM - LIMIT SWITCH BRACKET SPACER | | | | |
| 5 | 1 | 8042431 | SWITCH LIMIT BOOM | | | | |
| 6 | 1 | 8042432 | SWITCH LIMIT BOOM ADJ LEVER | | | | |
| 7 | 1 | 8042344 | TANK - BOOM HYD MANIFOLD MTG PLATE | 45 | 1 | 8049445 | LIMIT SWITCH BRACKET (AUS) |
| 8 | 1 | 8049329 | MANIFOLD SUBPLATE D03 BOOM HR | 46 | 2 | 8031239 | CLAMP, BOLT-ON 2" INSULATED |
| 9 | 1 | 8049328 | VALVE DIRECTIONAL BOOM HR D03 | 47 | 1 | 8049447 | SPIRAL WRAP 24" |
| 10 | 1 | 8048371 | BOOM TURRET WELDMENT | 48 | 1 | 8047331 | MANIFOLD BOOM UPPER |
| | 6 | U001281 | SCREW, HC .625 - 11 X 3.50" | 49 | 1 | 8047714 | HOSE ASSY VAC 4 - 38" ST-90 |
| | 6 | U120020 | NYLON LOCK NUT .625 - 11 | 50 | 1 | 8047714 | HOSE ASSY VAC 4 - 38" ST-90 |
| | 12 | U200140 | WASHER, FLAT .625 | 51 | 1 | 8049374 | HOSE ASSY VAC 4 - 120" ST-90 |
| 11 | 1 | 8043780 | GASKET BOOMBRG TOP | 52 | 1 | 8047951 | HOSE ASSY VAC 4 - 95" ST-90 |
| 12 | 2 | 8043781 | GASKET BOOMBRG BOT | 53 | 1 | 8047948 | HOSE ASSY VAC 4 - 9" ST-90 |
| 13 | 1 | 8042231 | BEARING, BOOM HYD. ROT. ASSY | 54 | 1 | 8047949 | HOSE ASSY VAC 4 - 11" ST-90 |
| | 3 | T500020 | FITTING, GREASE .125 STRAIGHT (2 IN INNER RING, 1 IN OUTER RING) | 55 | 1 | 8049475 | HOSE ASSY VAC 6 - 19" ST-90 |
| | 18 | U001195 | SCREW, HC 5/8"-11 X 1 3/4" | 56 | 1 | 8049453 | HOSE ASSY VAC 6 - 18" ST-90 |
| | 23 | U001210 | SCREW, HC 5/8"-11 X 2 1/4" | 57 | 1 | 8049454 | HOSE ASSY VAC 6 - 32" ST-90 |
| | 41 | U200140 | WASHER, FLAT 5/8" | 58 | 1 | 8049454 | HOSE ASSY VAC 6 - 32" ST-90 |
| | 41 | U210140 | WASHER, LOCK 5/8" | 59 | 1 | 8049455 | HOSE ASSY VAC 6 - 120" ST-90 |
| 14 | 1 | 8048611 | RECEIVER, BOOM HR BLACK | 60 | 1 | 8049455 | HOSE ASSY VAC 6 - 120" ST-90 |
| 15 | 1 | 8048601 | REMOTE CONTROL BOOM | 61 | 1 | 8049477 | HYD HOSE WRAP 60" |
| 16 | 1 | 8046644 | BOOM - COVER WELDMENT | 62 | 3 | U021100 | SCREW, SET 5/8 -11X 1.00"LG |
| * | 5 | U000400 | SCREW, HC 3/8"-16 X .75 | 63 | 1 | 8092698 | BOX, BOOM CONTROLS |
| * | 5 | U000440 | WASHER, FLAT 3/8" | 64 | 1 | 8092678 | GASKET, BOOM CONTROL BOX |
| 17 | 1 | 8043139 | LIGHT STROBE LED DEUTSCH | 65 | 1 | 8092677 | COVER PLATE |
| 18 | 2 | 8041958 | BOOM - FLEX HOSE ADAPTER WELDMENT | 66 | 1 | J200210 | DECAL REOMOTE BOOM CONTROL |
| 19 | 1 | 8046758 | BOOM HOSE, 6 - 32 1/2" | 67 | 4 | X000274 | SWITCH ROC.DPDT (ON)-OFF-(ON) |
| | 2 | 8042104 | CLAMP, HOSE T-BOLT 6.75 | 68 | 1 | X000155 | CONDUIT LOCKNUT 1" |
| 20 | 1 | 8046597 | CYLINDER, HYD BOOM 3 X 6 | 69 | 1 | X000154 | CONNECTOR, STRAIN RELIEF 1" |
| 21 | 2 | 8041977 | BOOM - PIVOT CYLINDER BASE PIN | | | | |
| 22 | 4 | U340050 | PIN LINCH 3/16 X 1 9/16" | * | 20 | U001325 | SCREW,HC .625-11 X 4.25" GR5 |
| 23 | 2 | T400611 | UNION, 8MB - 4MJ | * | 1 | X200135 | HARNESS, REMOTE OVERRIDE |
| 24 | 1 | 8046696 | PANEL CONTROL BOOM OVERRIDE | | | | |
| 25 | 1 | X000274 | SWITCH, ROCKER (UP / DOWN) | | | | |
| | 1 | X000274 | SWITCH, ROCKER (EXTEND / RETRACT) | | | | |
| | 1 | X000273 | SWITCH, ROCKER (BRAKE) | | | | |
| 26 | 1 | U120060 | NUT, LOCK NY 1 - 8 | | | | |
| 27 | 1 | U001570 | SCREW, HC 1"-8 X 5.00 | | | | |
| 28 | 2 | U200170 | WASHER, FLAT 1" - 2 1/2"OD | | | | |
| 29 | 1 | 8048198 | BOOM GATE VALVE CYLINDER | | | | |
| | 2 | W201020 | WIPER, CYLINDER ROD, 1 1/8" ROD | | | | |
| | 1 | 8044480 | SEAL PLATE WELDMENT | | | | |
| | 1 | 8044482 | BOOM SHUTOFF SEAL | | | | |
| | 1 | 8044483 | BOOM SHUTOFF SEAL PLATE SHIELD | | | | |
| 30 | 2 | T401660 | ELBOW, 90 3/8"MB - 1/4" MJ | | | | |
| 31 | 2 | T500030 | GREASE FITTING 1/8"NPT STRAIGHT | | | | |
| 32 | 3 | 8042812 | GROMMET, 2"ID 3"OD 1/4"WOG | | | | |
| 33 | 2 | 8041988 | BOOM - FLANGE GASKET | | | | |
| 34 | 1 | 8044471 | BOOM TURRET SHUTOFF - CLEAN COVER | | | | |
| 35 | 1 | 8044475 | BOOM TURRET SHUTOFF - CLEAN COVER GASKET | | | | |
| 36 | 5 | T400550 | REDUCER, 3/8"MB - 1/4" MJ | | | | |
| 37 | 2 | T401250 | ELBOW, 90 3/8"MB - 3/8" MJ | | | | |
| 38 | 4 | T400037 | UNION, 6MB - 6MJ | | | | |
| 39 | 1 | T405092 | PLUG, 3/8"MB-HEX SOCKET | | | | |
| 40 | 1 | 8049370 | PLUG CAVITY #8 3-WAY | | | | |
| 41 | 2 | T400035 | REDUCER, 5/8"MB - 3/8" MJ | | | | |
| 42 | 1 | 8049418 | BRACKET HOSE ROUTING WELD'T | | | | |
| 43 | 1 | 8049426 | BRACKET HOSE ROUTING WELD'T | | | | |
| 44 | 2 | T402153 | TEE, 3/8"FJ - 3/8" MJ - 3/8" MJ | | | | |

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VACASSY989-05 AUS

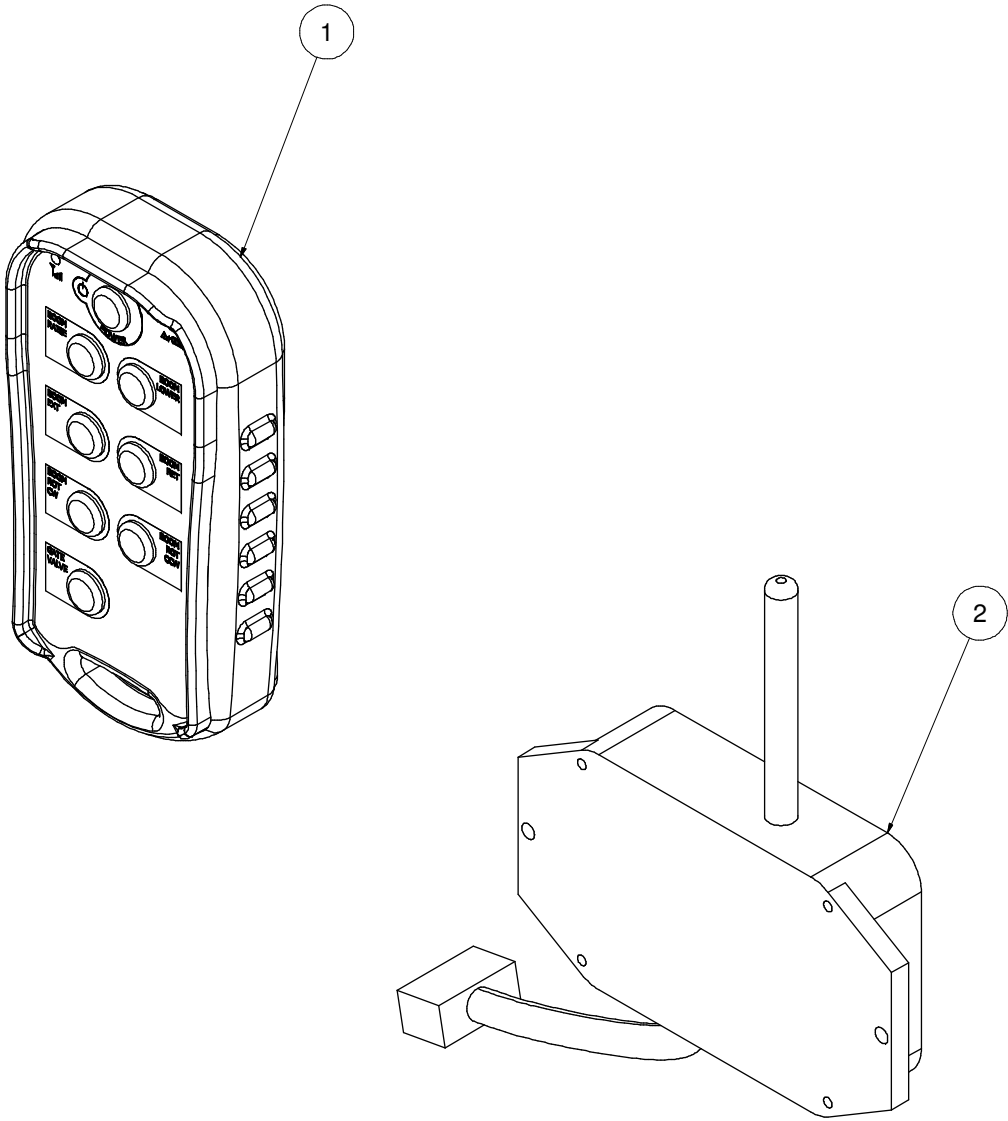
BOOM REMOTE CONTROL MANUAL



BOOM REMOTE CONTROL MANUAL

| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|---------|------------------------------------|
| 1 | 1 | 8092804 | RECEIVER BOOM MANUAL |
| 2 | 1 | 8092803 | REMOTE CONTROL BOOM MANUAL |
| * | 1 | X200060 | HARNESS VAC BOOM UPPER |
| * | 1 | X200040 | HARNESS VAC BOOM LOWER |
| * | 1 | 8048777 | SYSTEM OPERATION & TROUBLESHOOTING |

BOOM REMOTE CONTROL HYDRAULIC ROTATION

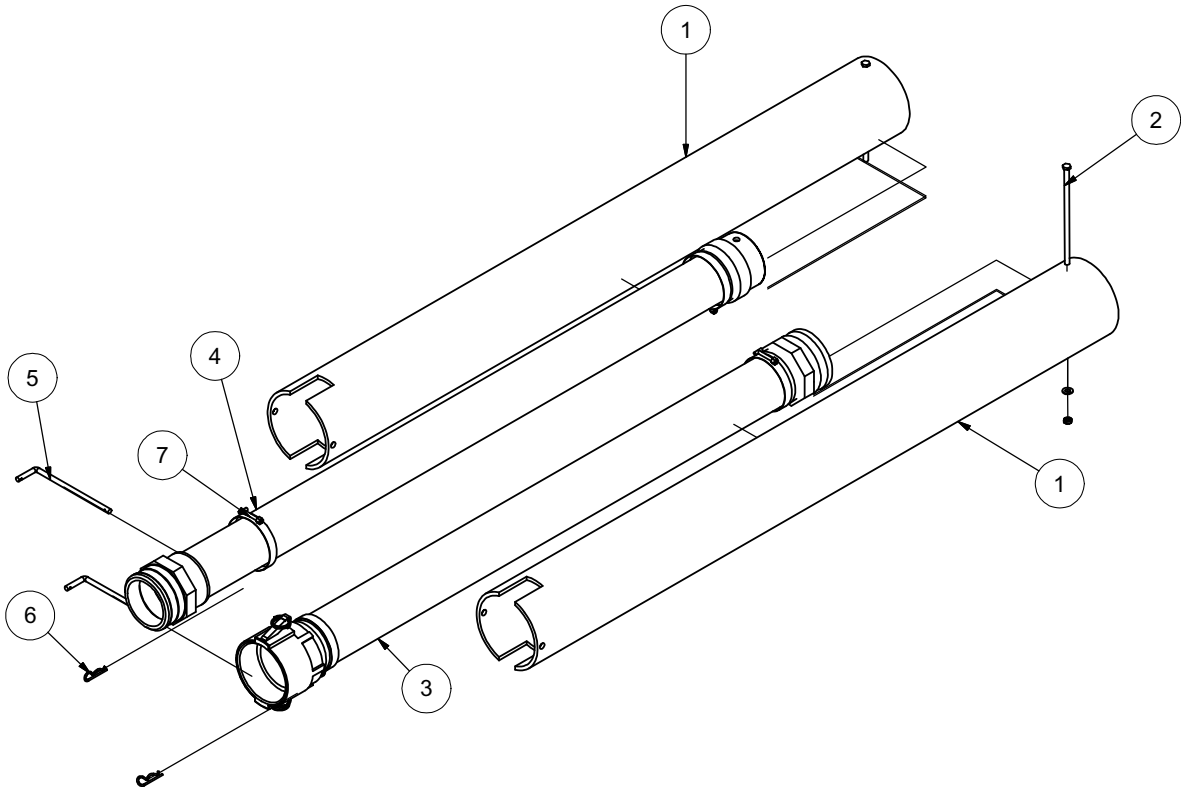


BOOM REMOTE CONTROL HYDRAULIC ROTATION

| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|---------|--|
| 1 | 1 | 8092805 | REMOTE CONTROL HYD. ROT. BOOM |
| * | 1 | X200060 | HARNESS VAC BOOM UPPER |
| * | 1 | X200040 | HARNESS VAC BOOM LOWER |
| * | 1 | 8048777 | SYSTEM OPERATION & TROUBLESHOOTING |
| * | 1 | X200066 | HARNESS, BOOM HYD. ROTATION LIMIT SWITCH |
| * | 1 | X200067 | HARNESS, BOOM HYD. ROTATION VALVE |
| 2 | 1 | 8092806 | RECEIVER HYD. ROT. BOOM |

HOSE STORAGE

BOOM



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VACASSY978

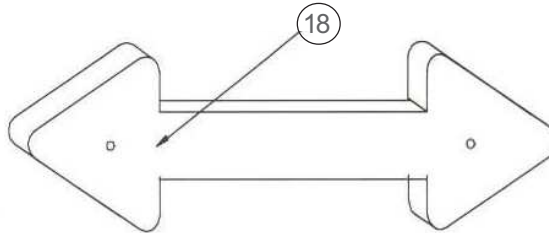
HOSE STORAGE

BOOM

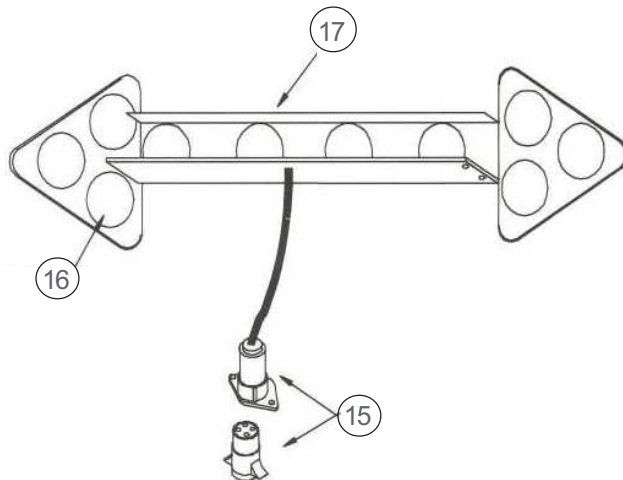
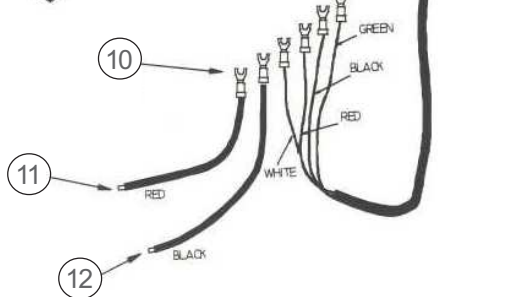
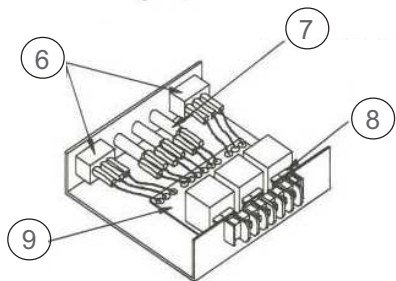
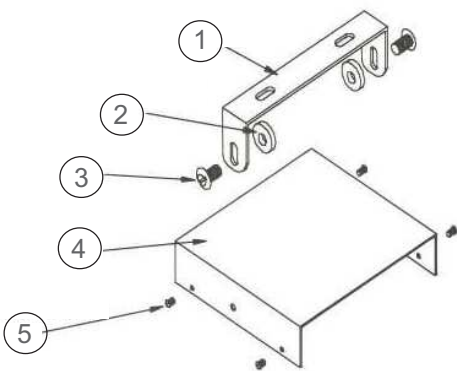
| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|---------|---------------------------------------|
| 1 | 2 | 8042222 | BOOM EXTENSION HOSE STORAGE |
| | 2 | 8043198 | CLAMP T-BOLT 700 |
| 2 | 2 | U000626 | SCREW, HC 3/8"-16 X 7.50" |
| | 1 | U200060 | WASHER, FLAT 3/8" |
| | 1 | U120110 | NUT, LOCK .375-16 |
| 3 | 1 | 8042137 | BOOM HOSE EXTENSION |
| | 1 | 8041781 | BOOM EXTENSION HOSE |
| | 1 | 8046444 | CAMLOCK, 4" AL FCAM X MBARB |
| | 1 | 8046443 | CAMLOCK, 4" AL MCAM X MBARB |
| | 2 | 8042606 | CLAMP HOSE T-BOLT 450 |
| 4 | 1 | 8032138 | BOOM HOSE EXTENSION WITH 4" UNION PVC |
| | 1 | 8045723 | 4" ALUMINUM TUBE 52 1/2"LG |
| | 2 | 8045728 | 4" HALF NIPPLE |
| | 1 | 8030844 | COUPLING, 4" ALUM CAMLOCK MXF |
| 5 | 1 | 8045725 | UNION PVC 4"FNPT 4"MSLIP w/HOLE |
| | 2 | 8041101 | HOSE STORAGE RETAINING ROD |
| | 2 | 8041485 | LANYARD CABLE |
| 6 | 2 | R700160 | R-CLIP |
| 7 | 4 | 8042606 | CLAMP T-BOLT 450 |

Arrow Board Option

ARROW BOARD & DUST COVER
NOT DRAWN TO SCALE



NOTE: MOUNTING BRACKETS MUST BE ATTACHED TO ARROW BOARD BEFORE DUST COVER IS REPLACED



Arrow Board Option

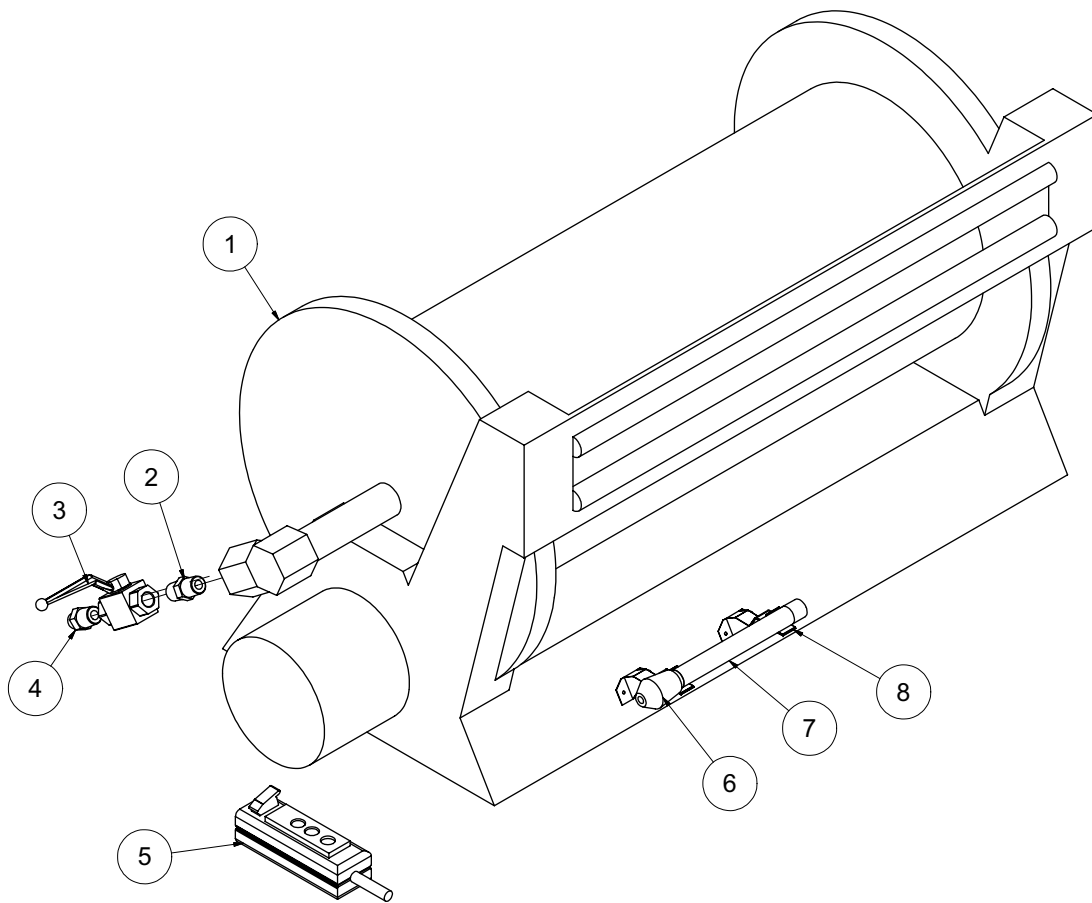
| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|------------|-------------------------|
| 1 | 1 | 8042197-1 | MOUNTING BAIL |
| 2 | 2 | 8042197-2 | WASHER |
| 3 | 2 | 8042197-3 | BOLT |
| 4 | 1 | 8042197-4 | COVER |
| 5 | 4 | 8042197-5 | MACHINE SCREW |
| 6 | 2 | 8042197-6 | SPDT SWITCH |
| 7 | 3 | 8042197-7 | RED PILOT LAMP |
| 8 | 1 | 8042197-8 | 15 AMP FUSE |
| 9 | 1 | 8042197-9 | CIRCUIT BOARD ASSY |
| 10 | 2 | 8042197-10 | #6 BLUE SPADE CONNECTOR |
| 11 | 4' | 8042197-11 | RED |
| 12 | 4' | 8042197-12 | BLACK |
| 13 | 20' | 8042197-13 | CABLE HARNESS |
| 14 | 4 | 8042197-14 | #6 BLUE SPADE CONNECTOR |
| 15 | 1 | 8042197-15 | 4-WAY CONNECTOR |
| 16 | 1 | 8042197-16 | STANDARD LAMP ASSY |
| 17 | 1 | 8042197-17 | ARROWBOARD FRAME |
| 18 | 1 | 8042197-18 | DUST COVER |
| * | 1 | 8045830 | ARROWBOARD BRACKET |
| * | 1 | 8046526 | ARROWBOARD MOUNT PLATE |

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VACASSY947

Hose Reel Assembly

(Jetter)



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VACASSY766

Hose Reel Assembly

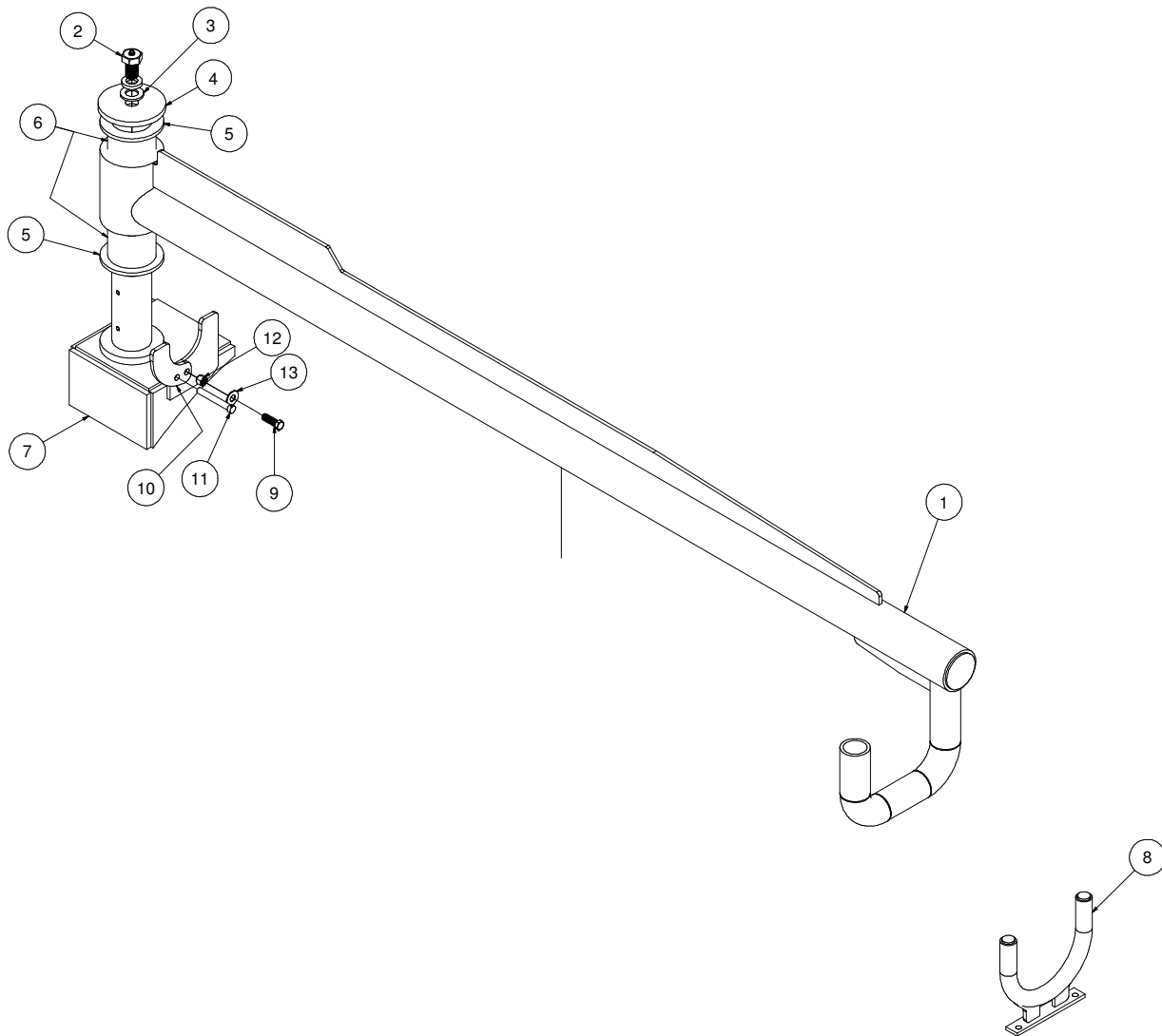
(Jetter)

| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|---------|-------------------------------|
| 1 | 1 | 8043214 | REEL ONLY JETTER 1/2" X 500' |
| 2 | 1 | T404020 | UNION, 8MP - 8MP |
| 3 | 1 | 8031197 | STEEL BALL VALVE - 1/2"NPT |
| 4 | 1 | T400040 | UNION, 8MP - 8MJ |
| 5 | 1 | 8041859 | JETTER CONTROLLER (WIRED) |
| | 1 | 8041858 | WIRE VAC S04-16-480 |
| | 1 | 8031153 | COVER, TOGGLE SWITCH |
| | 1 | 8030859 | HANDSET, HYD. POWER UNIT |
| | 1 | X000097 | SWITCH, TOGGLE SPST ON - OFF |
| 6 | 1 | 8040546 | JETTER NOZZLE 12GPM |
| 7 | 1 | 8032013 | NIPPLE, STAINLESS 1/2"MP X 8" |
| 8 | 1 | 8040899 | CLIP, TOOL HOLDER |

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VACASSY766

STRONGARM



013013-E

VACASSY990

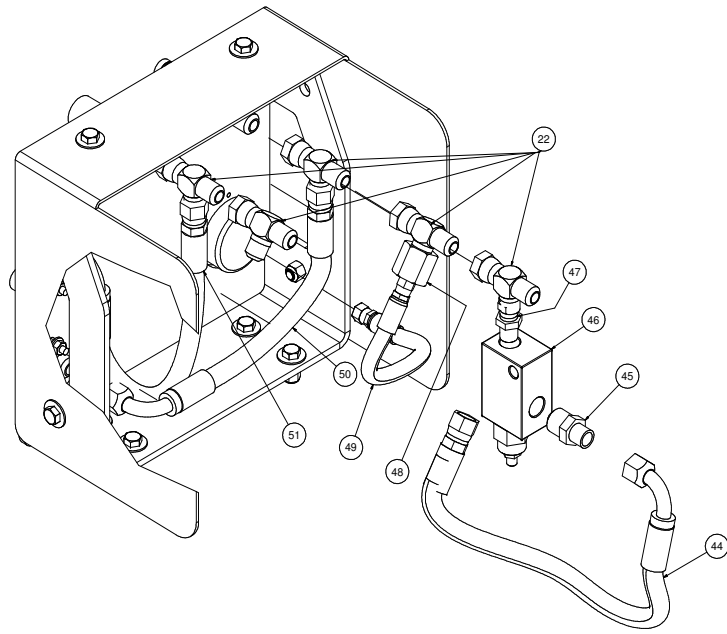
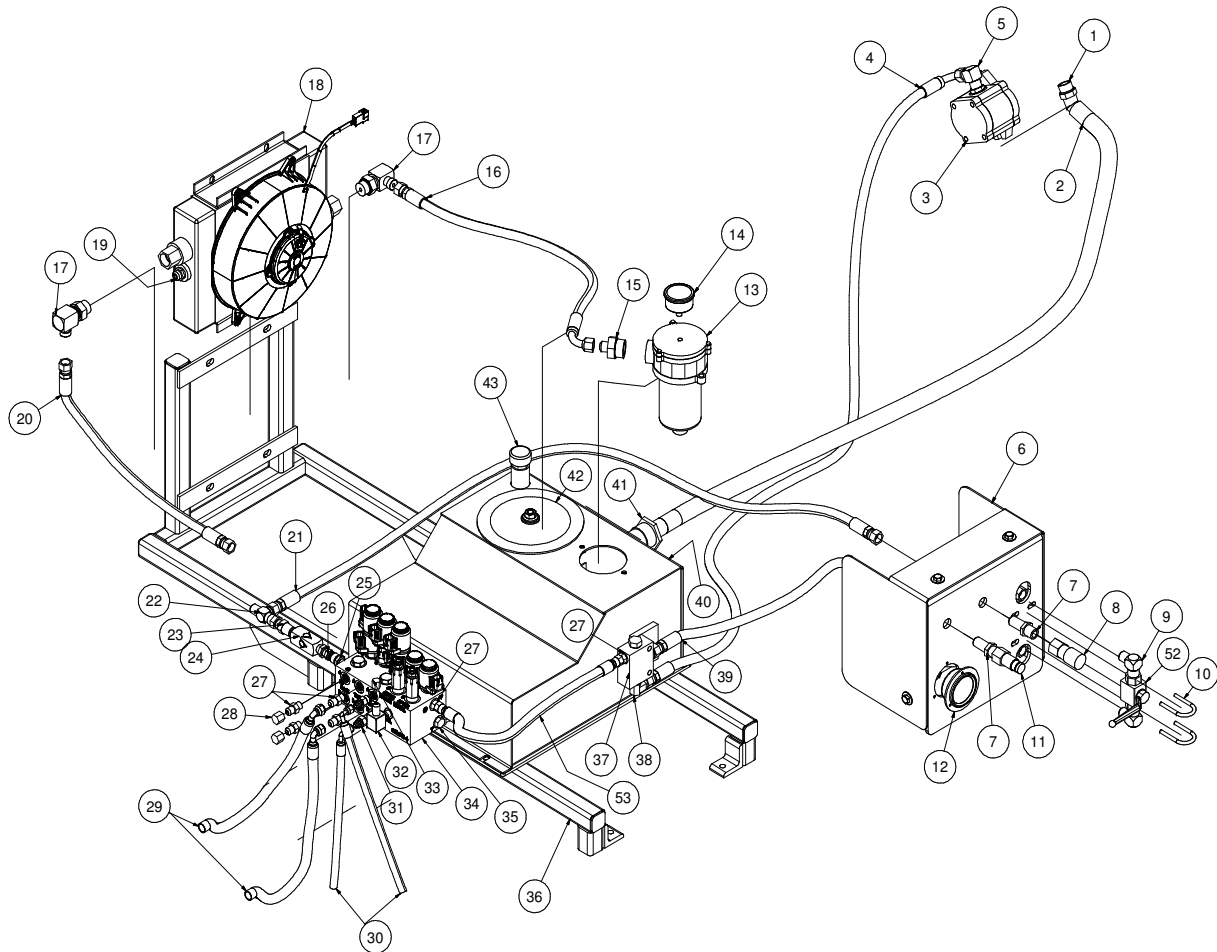
STRONGARM

| ITEM | QTY | NUMBER | DESCRIPTION |
|------|-----|---------|---|
| 1 | 1 | 8047181 | STRONGARM |
| 2 | 1 | 8048195 | SCREW, HC .750 10 X 1.25 ZP G5 W/GREASE FITTING |
| | 1 | U210160 | WASHER, LOCK .750 |
| 3 | 1 | U200160 | WASHER, FLAT 3/4" |
| 4 | 1 | 8047085 | END CAP, SA |
| 5 | 2 | 8047077 | WEAR FLANGE, UHMW |
| 6 | 2 | 8047076 | BEARING, NYLON |
| 7 | 1 | 8047098 | STRONG ARM BASE (500) |
| | 1 | 8047258 | STRONG ARM BASE (800) |
| 8 | 1 | 8047194 | STRONGARM HOLDER WELDMENT |
| 9 | 1 | U000445 | SCREW,HC 3/8"-16 X 1.25 |
| 10 | 1 | 8047089 | RETAINER, FRONT PLATE |
| 11 | 1 | 8041213 | SAFETY SNAP PIN |
| 12 | 1 | U210061 | NUT, LOCK, NY, .375 |
| 13 | 1 | U200060 | WASHER, FLAT 3/8" |
| * | 1 | J200114 | DECAL, I.D. STRONGARM |

* NOT SHOWN

Aux. Hydraulics

67/99HP



060413-E

VACASSY01910

Aux.Hydraulics

67/99HP

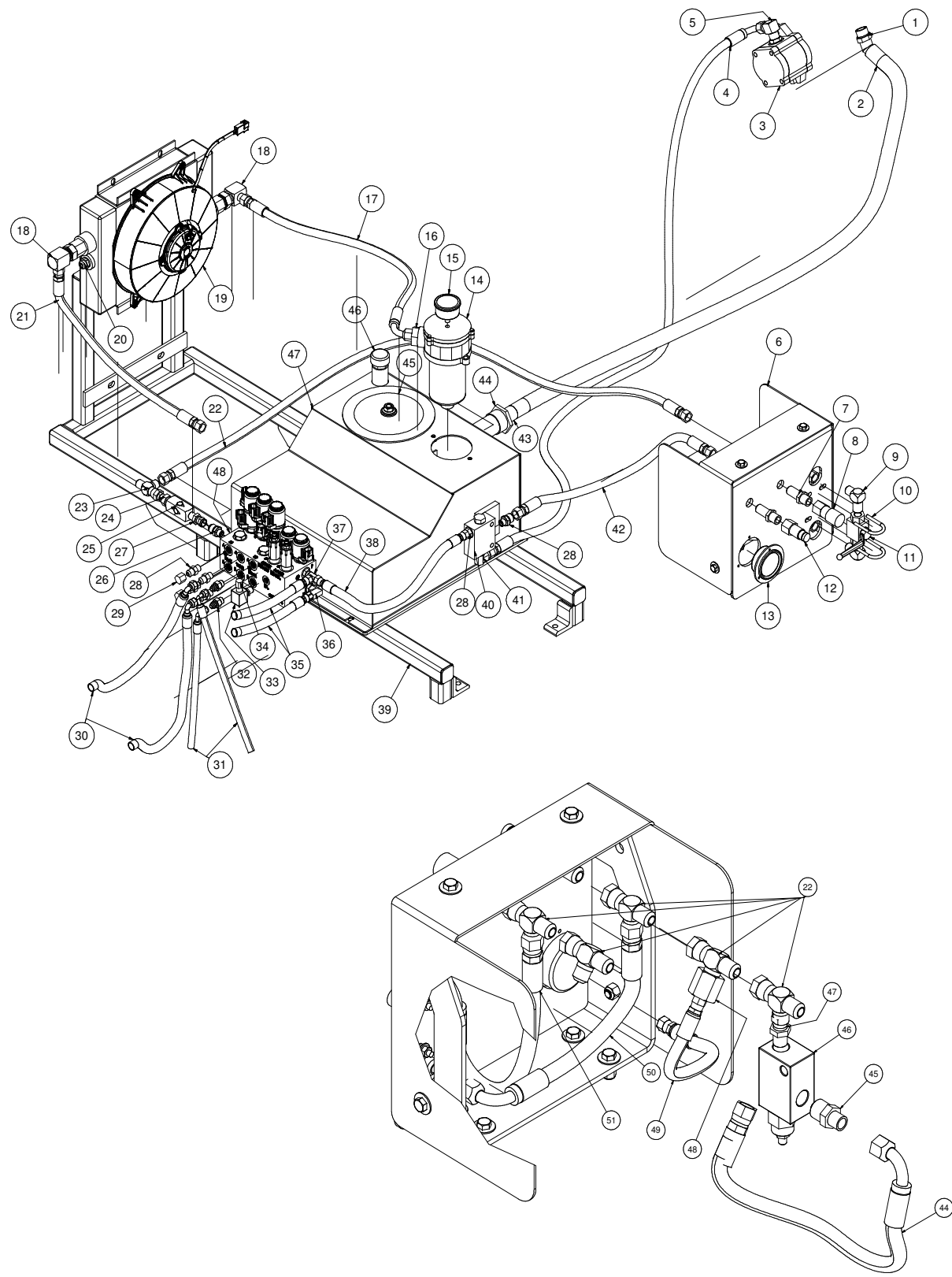
| ITEM | QTY | PART | DESCRIPTION |
|------|-----|------------|--------------------------------------|
| 1 | 1 | 8043964 | ELBOW, 45 16HB - 12MB |
| 2 | 1 | 8047786 | HOSE VAC SUCTION 1" - 52"LG |
| 3 | 1 | 8047409 | PUMP, AUX. HYD. 67/99HP |
| 4 | 1 | 8042924 | HOSE ASSY VAC 6-60" ST-90 |
| 5 | 1 | T401300 | ELBOW, 90 5/8"MB(ADJ) - 1/2MJ |
| 6 | 1 | 8048906 | AUX. HYD. BRACKET W/ SHIELD ASSEMBLY |
| 7 | 2 | T400396 | BULKHEAD, 8MP - 8MJ |
| 8 | 1 | 8030663 | FITTING, QUICK DISCONNECT FEMALE |
| 9 | 2 | T401140 | ELBOW, 8MP - 8MJ |
| 10 | 2 | U010017 | CLAMP HOOK 1 1/2", 1/4"THD |
| | 4 | U100020 | NUT, HEX 1/4-20 |
| | 4 | U200020 | WASHER, FLAT 1/4" |
| 11 | 1 | 8030662 | FITTING, QUICK DISCONNECT MALE |
| 12 | 1 | HM00092 | PRESSURE GAUGE |
| 13 | 1 | 8047456 | FILTER, HYD. OIL AUX. HYD. |
| 14 | 1 | 8047456-1 | PRESSURE INDICATOR |
| 15 | 1 | T400240 | REDUCER, 1"MB - 1/2"MJ |
| 16 | 1 | 8048117 | HOSE ASSY VAC 6-34" ST-90 |
| 17 | 2 | T401320 | ELBOW, 90 3/4"(ADJ) - 1/2"MJ |
| 18 | 1 | CM00041 | COOLER, HYD W/FAN |
| 19 | 1 | 8047920 | SWITCH, TEMP OIL AUX HYD 165F |
| 20 | 1 | 8049327 | HOSE ASSY VAC 8-36" ST-90 |
| 21 | 1 | 8049008 | HOSE ASSY VAC 8-60" ST-90 |
| 22 | 6 | T402155 | TEE, 1/2FJ - 1/2MJ - 1/2MJ |
| 23 | 1 | T400040 | UNION, 1/2"MP - 1/2"MJ |
| 24 | 1 | 8041734 | CHECK VALVE |
| 25 | 1 | T400120 | REDUCER, 3/8MB - 1/2MJ |
| 26 | 1 | T400814 | UNION, 8MP - 8FJ |
| 27 | 6 | T400037 | UNION, 6MB - 6MJ |
| 28 | 2 | T405203 | CAP, 3/8" FEM. JIC., HEX HEAD |
| 29 | 2 | 8043664 | HOSE ASSY VAC 6-36" ST-90 |
| 30 | 2 | 8049011 | HOSE ASSY VAC 4-106" ST-90 |
| 31 | 2 | T400550 | REDUCER, 6MB - 4MJ |
| 32 | 1 | T401230 | ELBOW, 90 1/4MB - 1/4MJ |
| 33 | 1 | T405200 | CAP, 1/4" FEM. JIC, HEX HEAD |
| 34 | 1 | 8048690-02 | MANIFOLD ASSEMBLY, BOOM (CROSS3) |
| 35 | 1 | T405064 | PLUG, 3/8"NPT |
| 36 | 1 | 8047316 | BRACKET, AUX. HYD. |
| 37 | 1 | 3000084 | REGULATOR, PRIORITY FLOW |
| 38 | 1 | T401120 | ELBOW,90 3/8MP - 1/2MJ |
| 39 | 1 | 8049003 | HOSE ASSY VAC 8-30" ST-90 |
| 40 | 1 | 8047388 | TANK, HYD. AUX (CROSS2) |
| * | 1 | T720115 | GAUGE, SIGHT HYD. OIL |
| 41 | 1 | 8011058 | SUCTION STRAINER 1"/15GPM |
| 42 | 1 | 4800758-01 | CLEAN-OUT COVER, TOP |
| 43 | 1 | 8047330-4 | CAP, HYD. TANK |
| 44 | 1 | 8049005 | HOSE ASSY VAC 8-16" ST-90 |
| 45 | 1 | T400040 | UNION, 8MP - 8MJ |
| 46 | 1 | 8041829 | VALVE, RELIEF |
| 47 | 1 | T400814 | UNION, 8MP - 8FJ |
| 48 | 1 | T400700 | REDUCER 1/2FJ - 1/4MJ |
| 49 | 1 | 8042934 | HOSE ASSY VAC 4 - 12" ST-ST |
| 50 | 1 | 8049006 | HOSE ASSY VAC 8 - 8" ST-90 |
| 51 | 1 | 8049007 | HOSE ASSY VAC 8 - 10" ST-ST |
| 52 | 1 | 8031197 | VALVE,BALL 1/2" 3000 PSI.MIN |
| 53 | 1 | 8041785 | HOSE ASSY VAC 6-18" ST-ST |

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VACASSY01910

Aux.Hydraulics (Boom)

67/99HP



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VACASSY01911

Aux.Hydraulics (Boom)

67/99HP

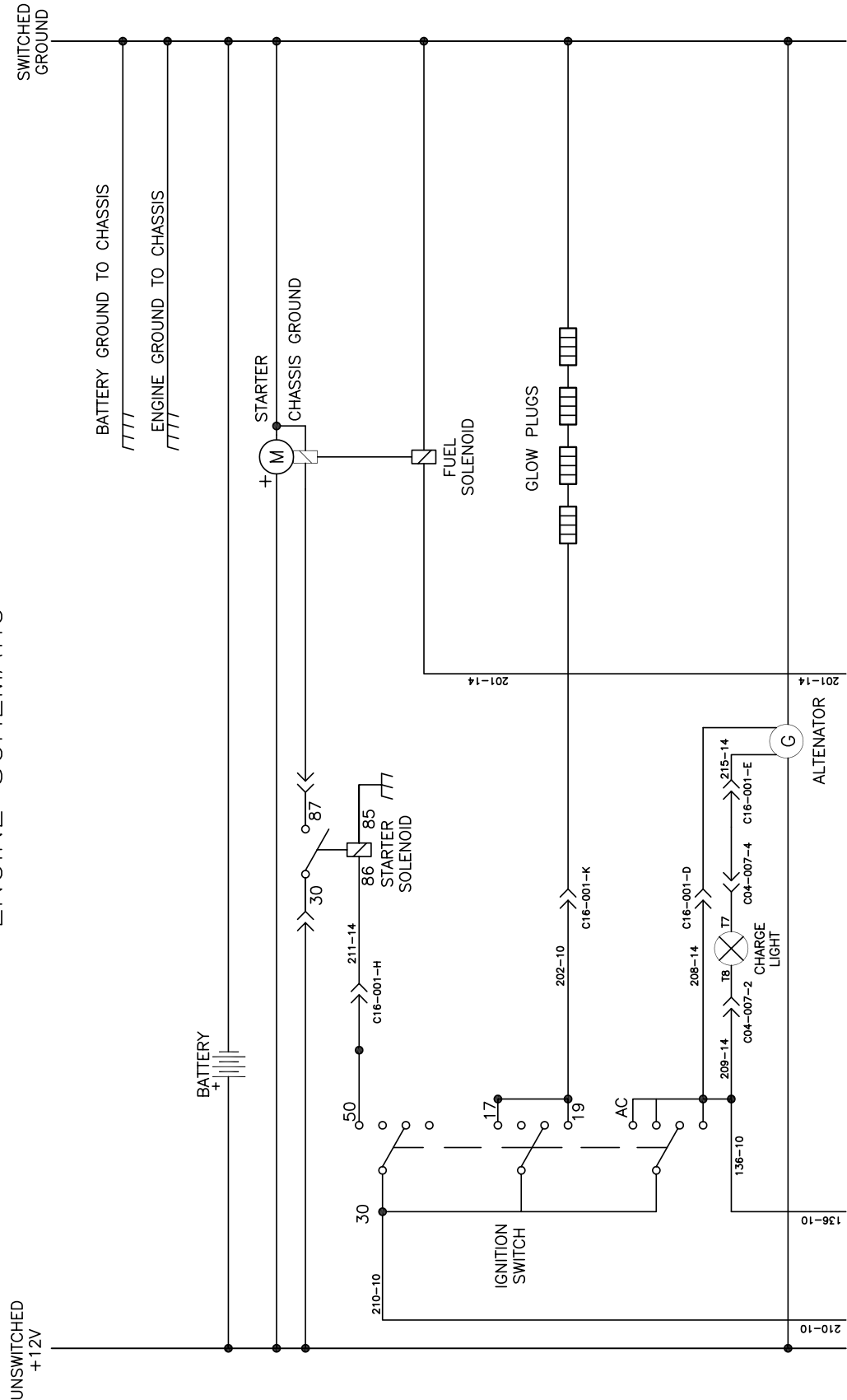
| ITEM | QTY | PART | DESCRIPTION |
|------|-----|------------|--------------------------------------|
| 1 | 1 | 8043964 | ELBOW, 45 16HB - 12MB |
| 2 | 1 | 8047786 | HOSE VAC SUCTION 1" - 52"LG |
| 3 | 1 | 8047409 | PUMP, AUX. HYD. 67/99HP |
| 4 | 1 | 8042924 | HOSE ASSY VAC 6-60" ST-90 |
| 5 | 1 | T401300 | ELBOW, 90 5/8"MB(ADJ) - 1/2MJ |
| 6 | 1 | 8048906 | AUX. HYD. BRACKET W/ SHIELD ASSEMBLY |
| 7 | 2 | T400396 | BULKHEAD, 8MP - 8MJ |
| 8 | 1 | 8030663 | FITTING, QUICK DISCONNECT FEMALE |
| 9 | 2 | T401140 | ELBOW, 8MP - 8MJ |
| 10 | 2 | U010017 | CLAMP HOOK 1 1/2", 1/4"THD |
| | 4 | U100020 | NUT, HEX 1/4-20 |
| | 4 | U200020 | WASHER, FLAT 1/4" |
| 11 | 1 | 8031197 | VALVE,BALL 1/2" 3000 PSI.MIN |
| 12 | 1 | 8030662 | FITTING, QUICK DISCONNECT MALE |
| 13 | 1 | HM00092 | PRESSURE GAUGE |
| 14 | 1 | 8047456 | FILTER, HYD. OIL AUX. HYD. |
| 15 | 1 | 8047456-1 | PRESSURE INDICATOR |
| 16 | 1 | T400240 | REDUCER, 1"MB - 1/2"MJ |
| 17 | 1 | 8048117 | HOSE ASSY VAC 6-34" ST-90 |
| 18 | 2 | T401320 | ELBOW, 90 3/4"(ADJ) - 1/2"MJ |
| 19 | 1 | CM00041 | COOLER, HYD W/FAN |
| 20 | 1 | 8047920 | SWITCH, TEMP OIL AUX HYD 165F |
| 21 | 1 | 8049327 | HOSE ASSY VAC 8-36" ST-90 |
| 22 | 1 | 8049008 | HOSE ASSY VAC 8-60" ST-90 |
| 23 | 6 | T402155 | TEE, 1/2FJ - 1/2MJ - 1/2MJ |
| 24 | 1 | T400040 | UNION, 1/2"MP - 1/2"MJ |
| 25 | 1 | 8041734 | CHECK VALVE |
| 26 | 1 | T400120 | REDUCER, 3/8MB - 1/2MJ |
| 27 | 1 | T400814 | UNION, 8MP - 8FJ |
| 28 | 4 | T400037 | UNION, 6MB - 6MJ |
| 29 | 2 | T405203 | CAP, 3/8" FEM. JIC., HEX HEAD |
| 30 | 2 | 8043664 | HOSE ASSY VAC 6-36" ST-90 |
| 31 | 2 | 8049011 | HOSE ASSY VAC 4-106" ST-90 |
| 32 | 2 | T400550 | REDUCER, 6MB - 4MJ |
| 33 | 1 | T401230 | ELBOW, 90 1/4MB - 1/4MJ |
| 34 | 1 | T405200 | CAP, 1/4" FEM. JIC, HEX HEAD |
| 35 | 2 | 8049283 | HOSE ASSY VAC 6 - 204" ST-90 |
| 36 | 1 | T401250 | ELBOW, 90 3/8MB - 3/8MJ |
| 37 | 1 | T402148 | TEE, 6MB - 6MJ - 6MJ |
| 38 | 1 | 8041785 | HOSE ASSY VAC 6 - 18" ST-ST |
| 39 | 1 | 8047316 | BRACKET, AUX. HYD. |
| 40 | 1 | 3000084 | REGULATOR, PRIORITY FLOW |
| 41 | 1 | T401120 | ELBOW,90 3/8MP - 1/2MJ |
| 42 | 1 | 8049003 | HOSE ASSY VAC 8-30" ST-90 |
| 43 | 1 | 8043963 | UNION, 1"MP - 1"BARB |
| 44 | 1 | 8011058 | SUCTION STRAINER 1"/15GPM |
| 45 | 1 | 4800758-01 | CLEAN-OUT COVER, TOP |
| 46 | 1 | 8047330-4 | CAP, HYD. TANK |
| 47 | 1 | 8047388 | TANK, HYD. AUX (CROSS2) |
| * | 1 | T720115 | GAUGE, SIGHT HYD. OIL |
| 48 | 1 | 8048690-02 | MANIFOLD ASSEMBLY, BOOM (CROSS3) |
| 49 | 1 | T400814 | UNION, 8MP - 8FJ |
| 50 | 1 | 8041829 | VALVE, RELIEF |
| 51 | 1 | T400040 | UNION, 8MP - 8MJ |
| 52 | 1 | 8049005 | HOSE ASSY VAC 8 - 16" ST-90 |
| 53 | 1 | T400700 | REDUCER, 1/2FJ - 1/4MJ |
| 54 | 1 | 8042934 | HOSE ASSY VAC 4 - 12" ST-ST |
| 55 | 1 | 8049006 | HOSE ASSY VAC 8 - 8" ST-90 |

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VACASSY01911

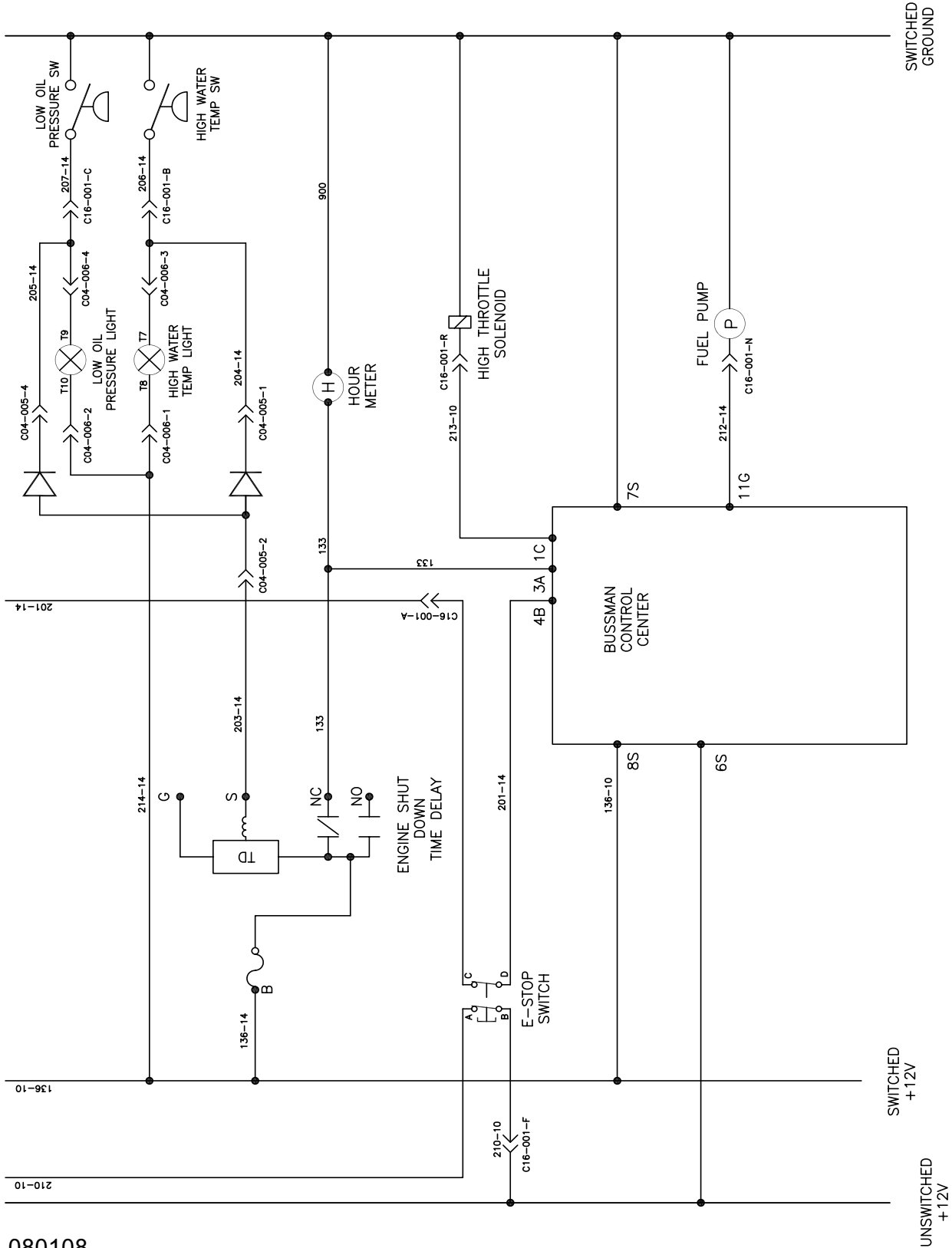
Vacuum Diesel Engine Schematic

VACUUM DIESEL ENGINE SCHEMATIC



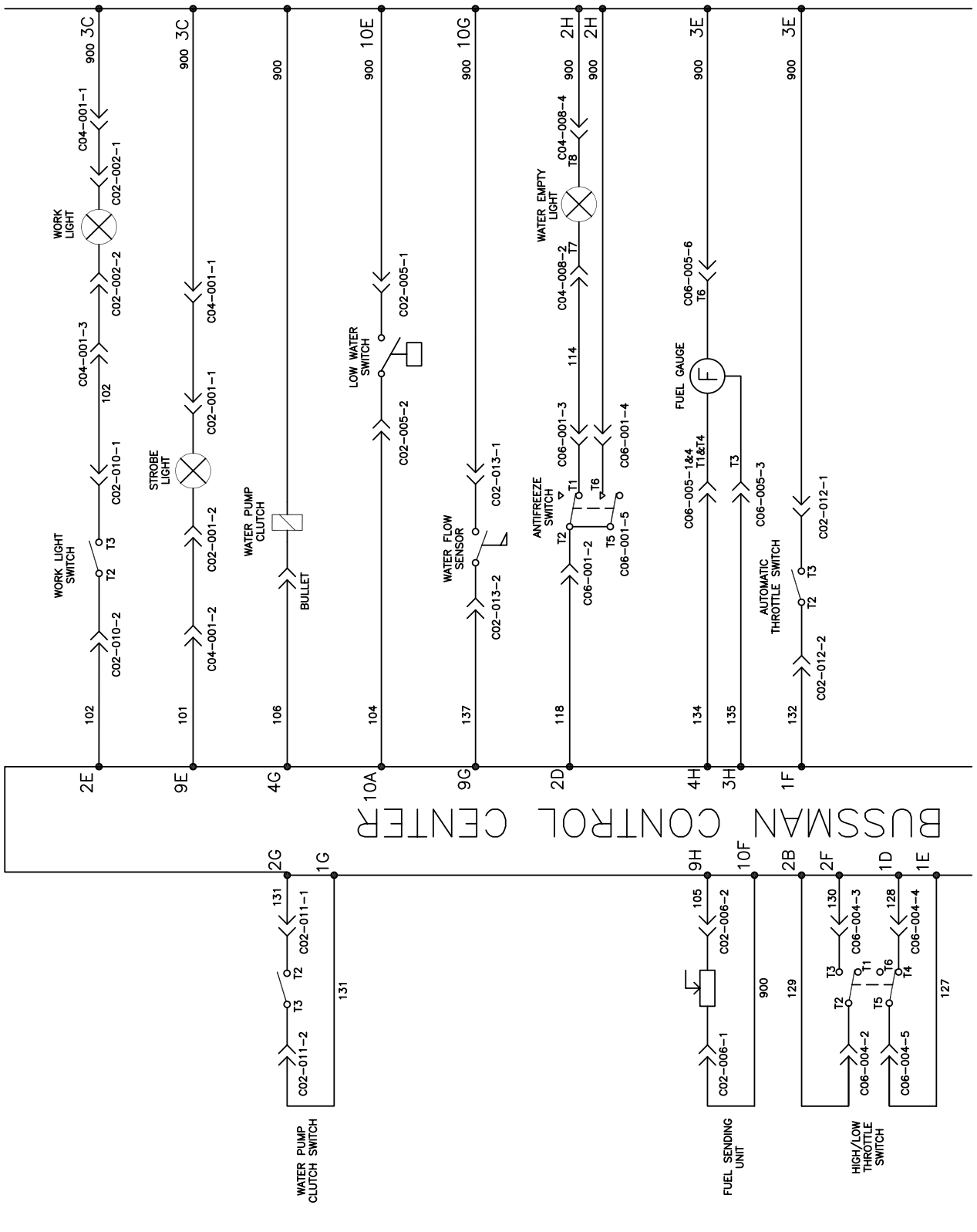
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Vacuum Diesel Engine Schematic



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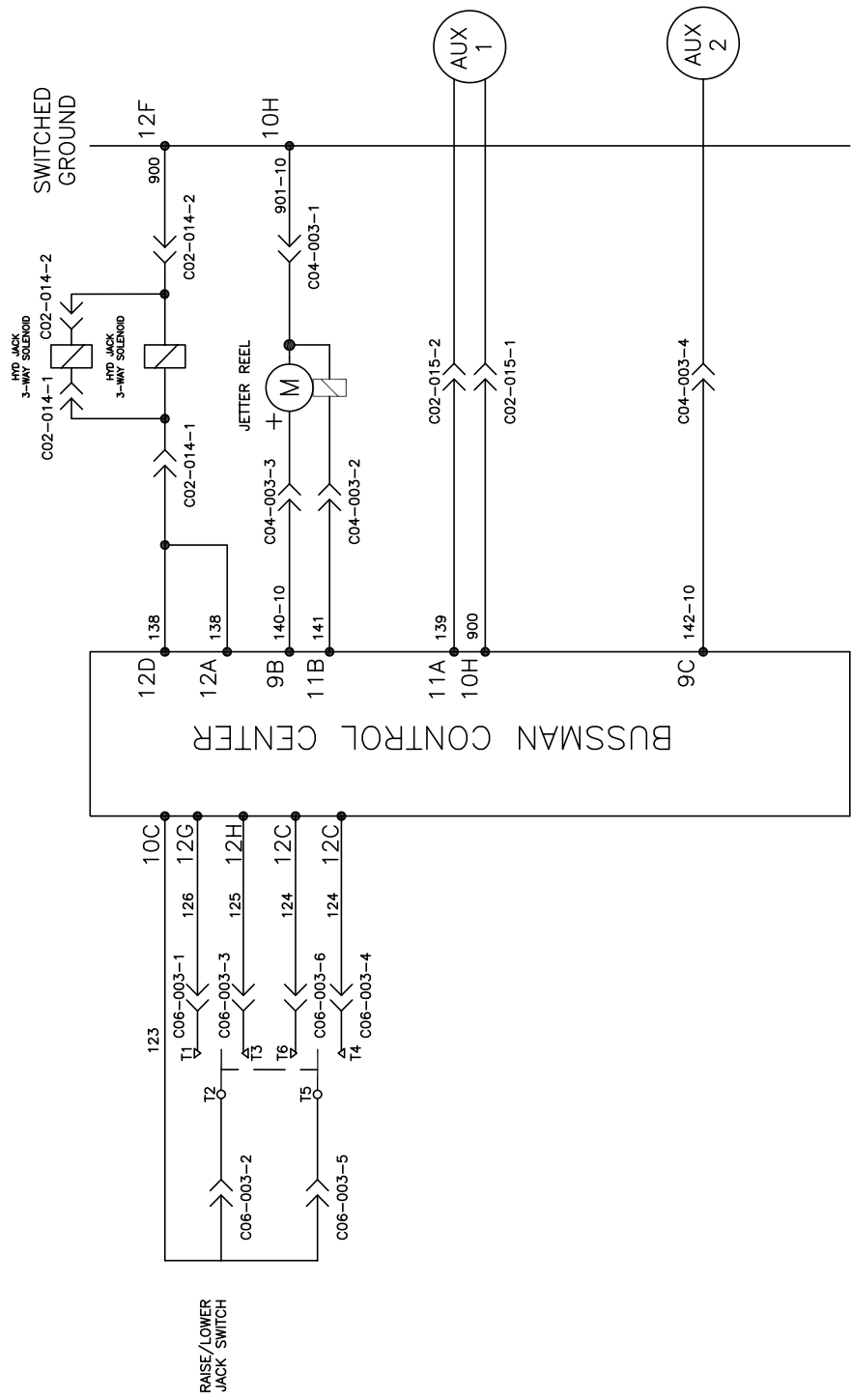
Vacuum Diesel Engine Schematic



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Vacuum Diesel Engine Schematic

BUSSMAN CONTROL CENTER
OPTIONS

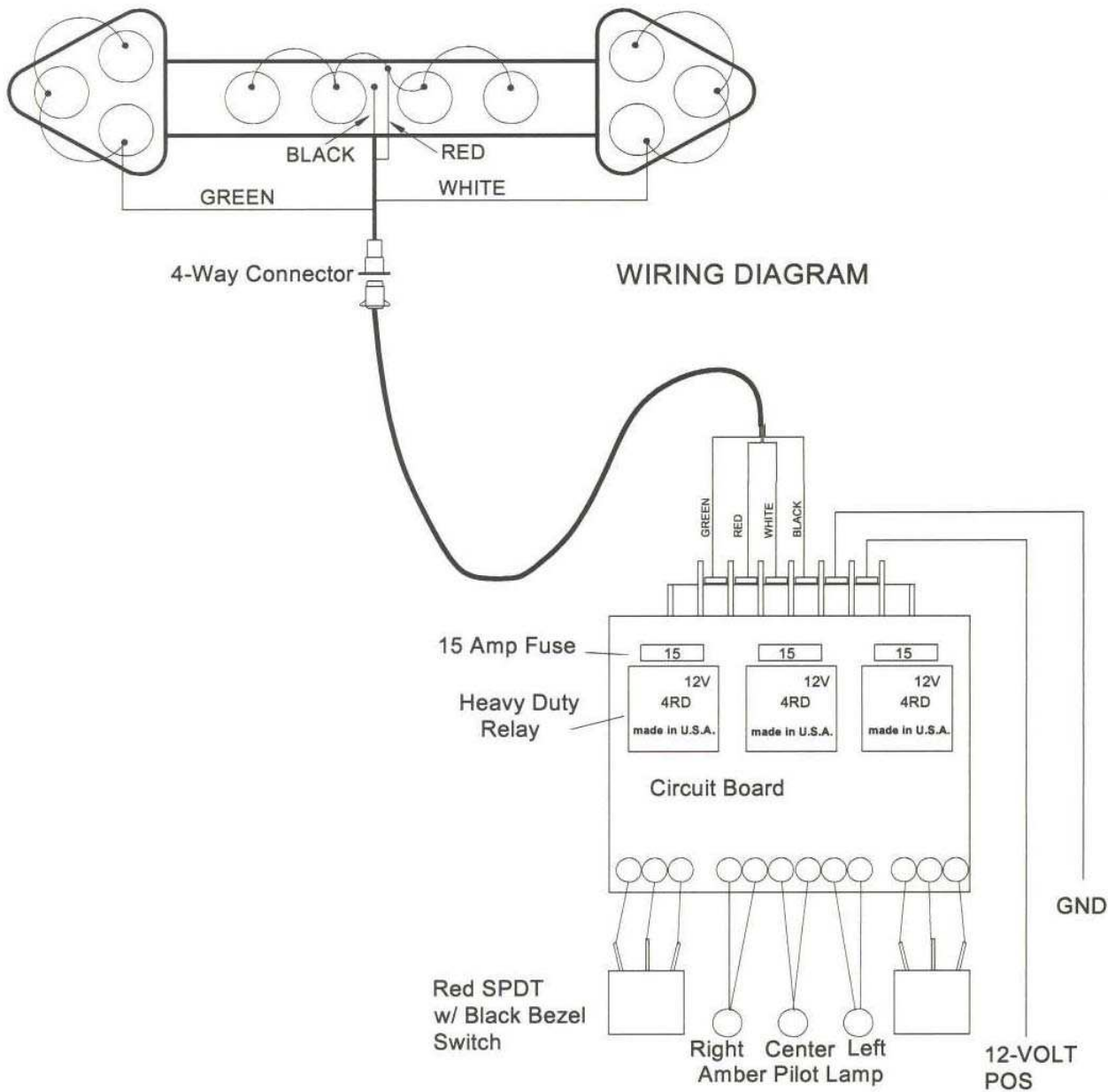


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Arrow Board Option

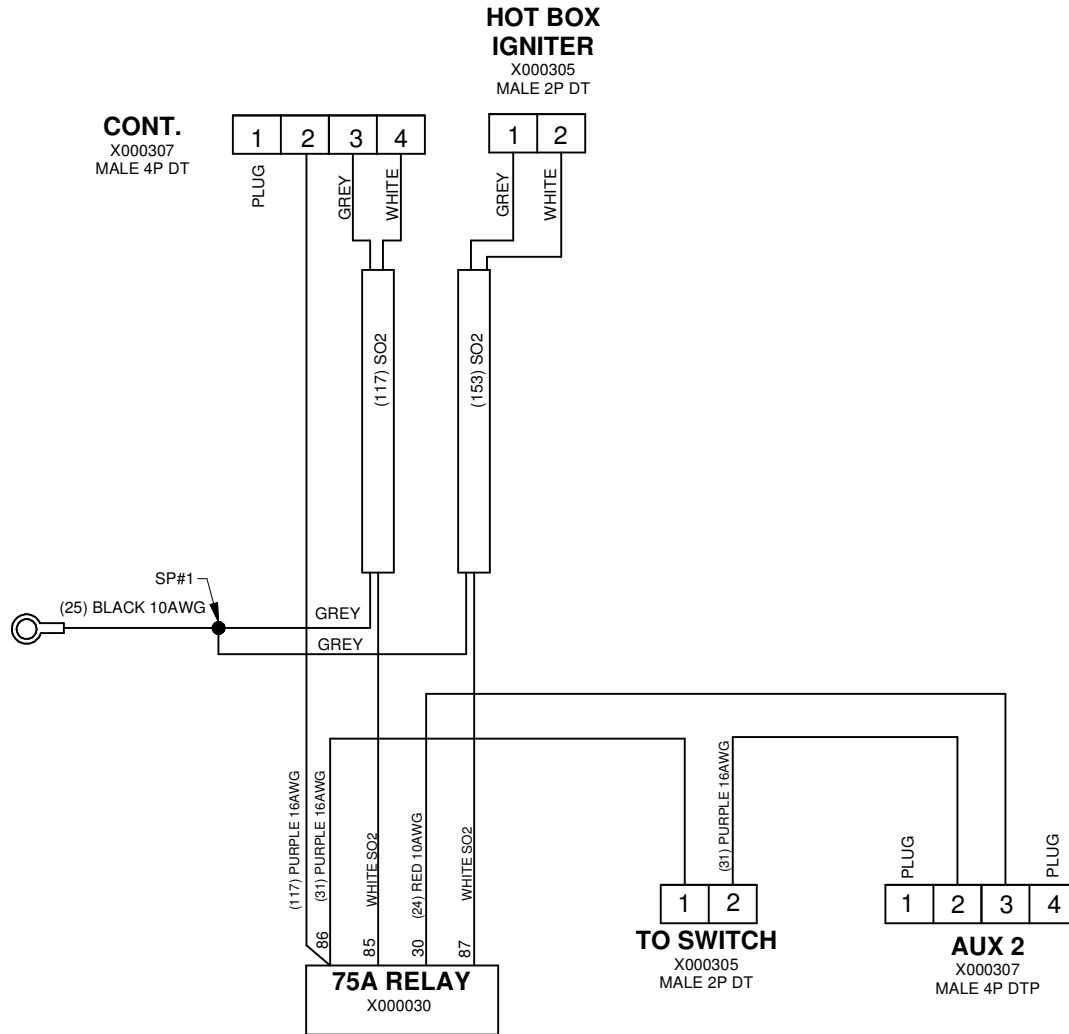


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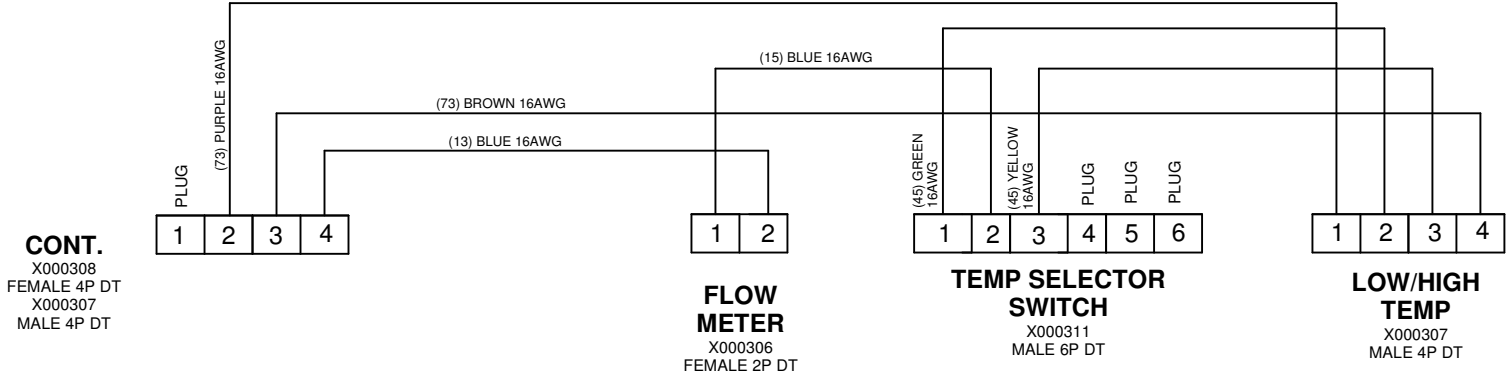
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MCLAUGHLIN - HOT BOX WIRING SCHEMATIC

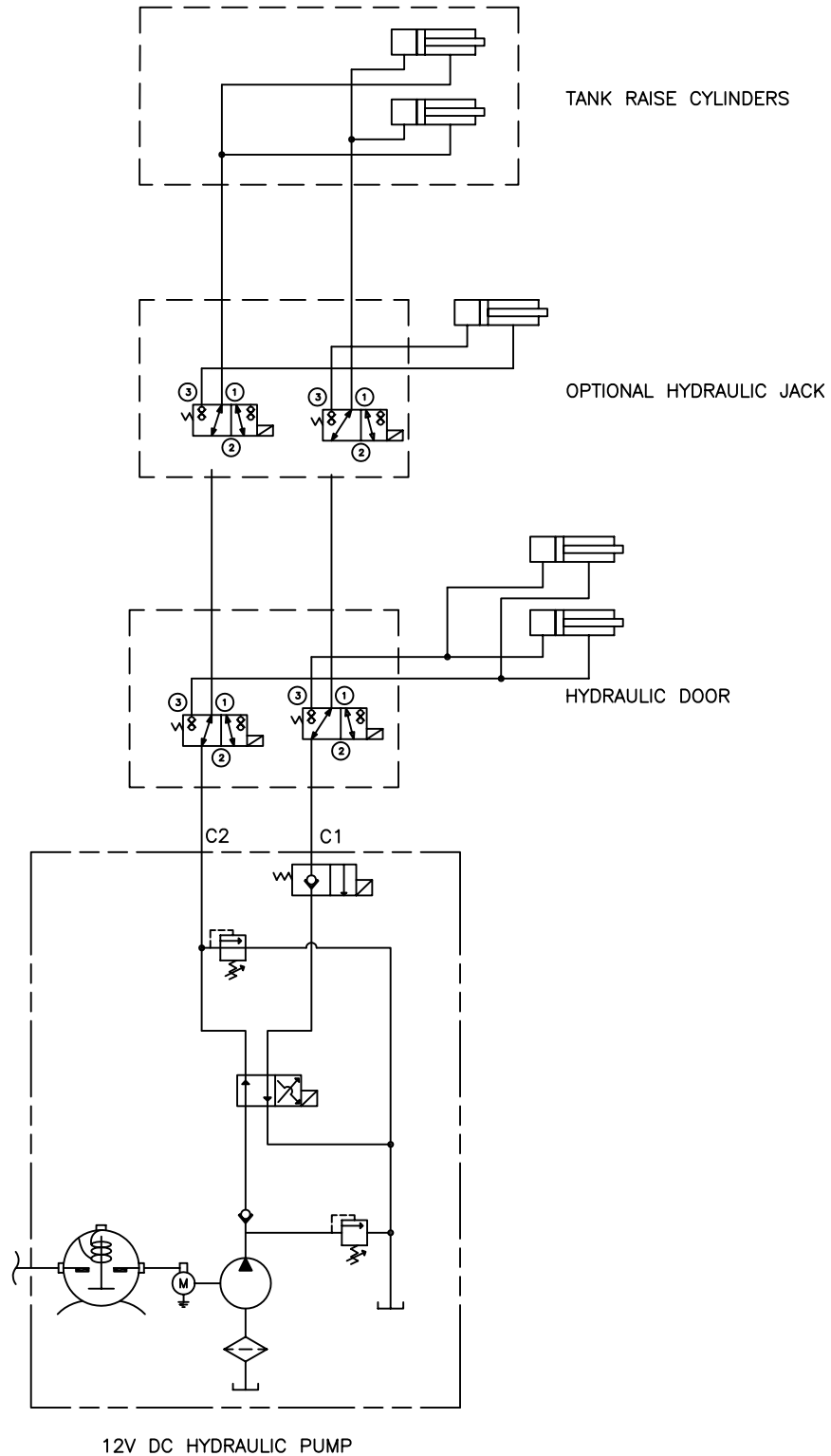


MCLAUGHLIN - HOT BOX WIRING SCHEMATIC



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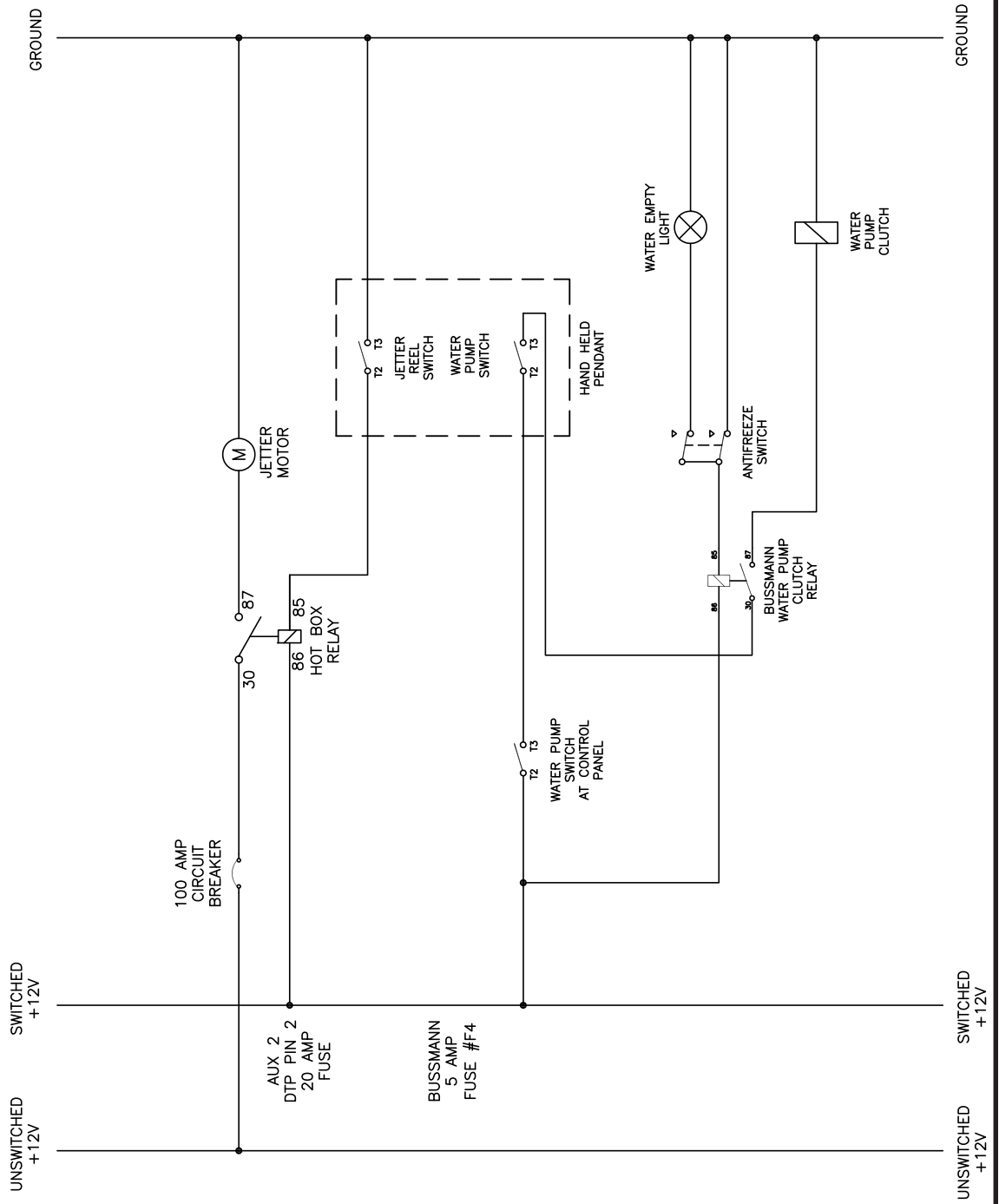
TANK AND OPTIONAL JACK HYDRAULIC SCHEMATIC (2-Stage)



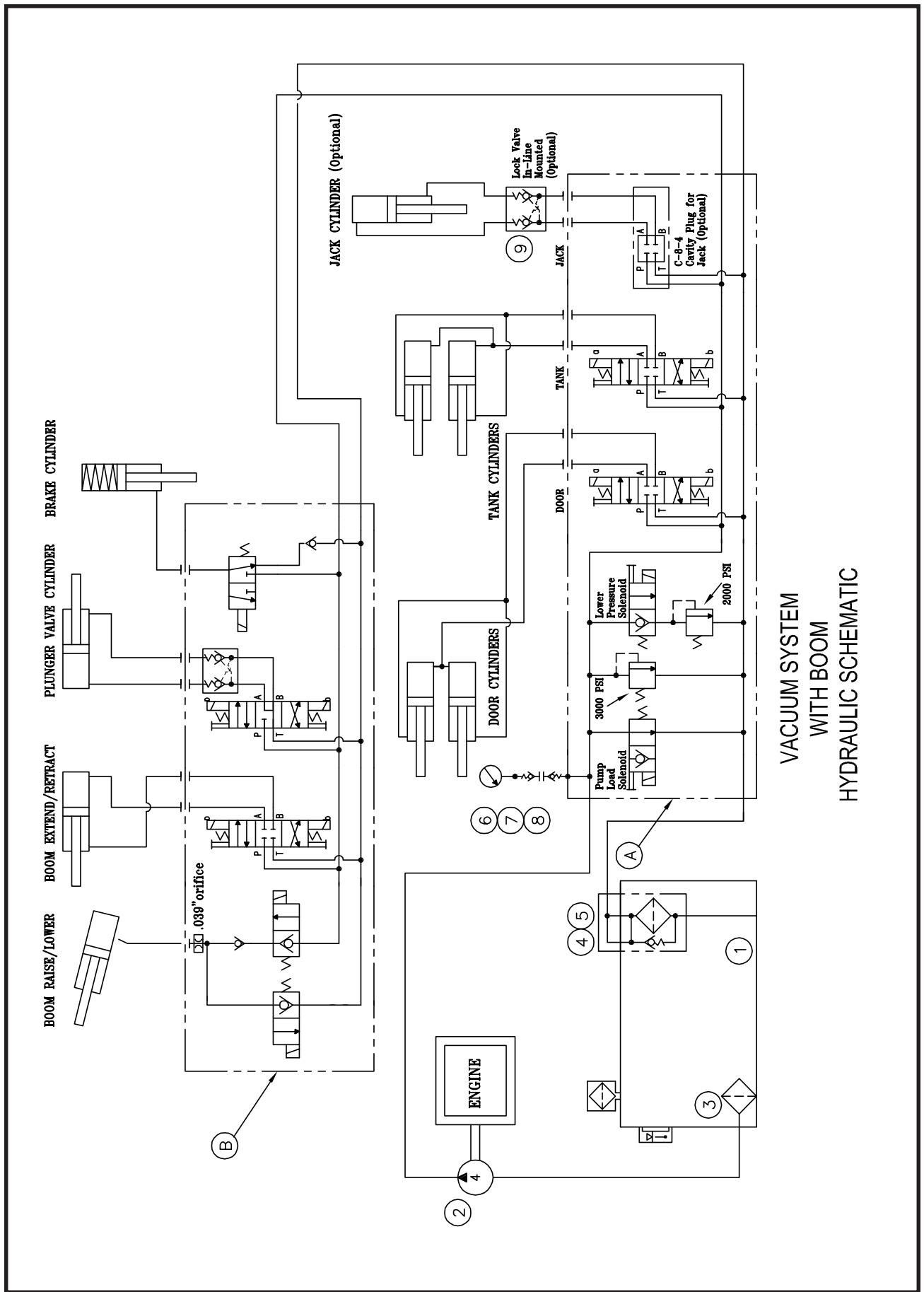
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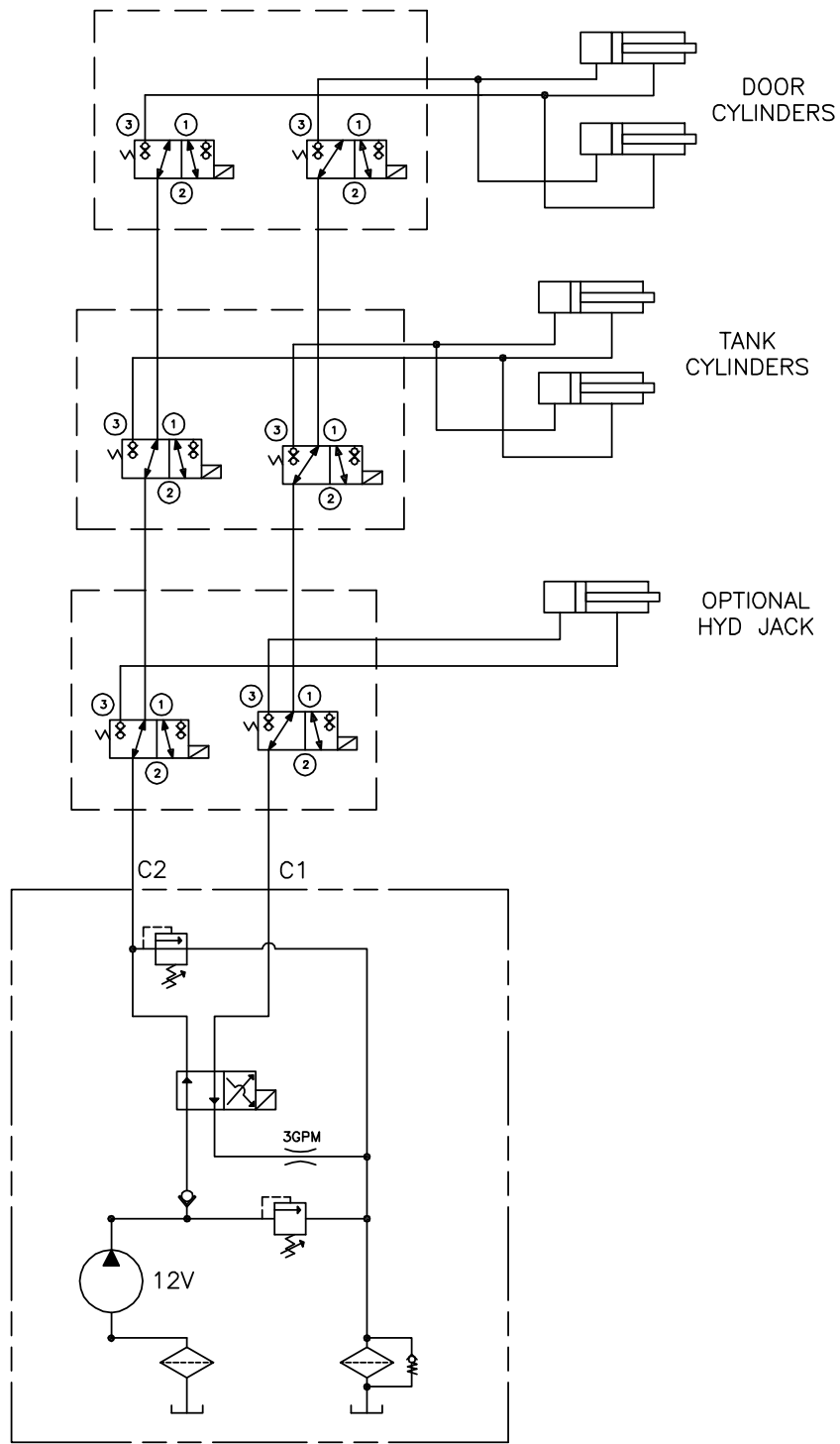
MCLAUGHLIN - JETTER WIRING SCHEMATIC



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VACUUM SYSTEM WITH BOOM HYDRAULIC SCHEMATIC



BASE HYDRAULIC MANIFOLD

VACUUM SYSTEM
 W/O BOOM
 12V HYDRAULIC SCHEMATIC

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ROOTS

Blowers Compressors Exhausters

Universal URAI-DSL

Contents

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|-----------------------|--------------------------|
| Information Summary | Troubleshooting |
| Safety Precautions | Inspection & Maintenance |
| Operating Limitations | Data |
| Lubrication | Assembly Drawings |
| Operation | Parts List |

Do These Things To Get The Most From Your ROOTS™ blower

- **Make sure both driving and driven equipment is correctly lubricated before start-up. See LUBRICATION.**
- In event of trouble during installation or operation, do not attempt repairs of ROOTS furnished equipment. Notify ROOTS, giving all nameplate information plus an outline of operating conditions and a description of the trouble. Unauthorized attempts at equipment repair may void ROOTS warranty.
- Units out of warranty may be repaired or adjusted by the owner. Good inspection and maintenance practices should reduce the needs for repairs.

NOTE: Information in this manual is correct as of the date of publication. ROOTS reserves the right to make design or material changes without notice, and without obligation to make similar changes without notice, and without obligation to make similar changes on equipment of prior manufacture.



Safety Precautions

It is important that all personnel observe safety precautions to minimize the chances of injury. Among many considerations, the following should be particularly noted:

- Blower casing and associated piping or accessories may become hot enough to cause major skin burns on contact.
- Internal and external rotating parts of the blower and driving equipment can produce serious physical injuries. Do not reach into any opening in the blower while it is operating, or while subject to accidental starting. Protect external moving parts with adequate guards.
- Disconnect power before doing any work, and avoid bypassing or rendering inoperative any safety or protective devices.
- If blower is operated with piping disconnected, place a strong coarse screen over the inlet and avoid standing in the discharge air stream. **CAUTION: Never cover the blower inlet with your hand or other part of body.**
- Stay clear of the blast from pressure relief valves and the suction area of vacuum relief valves.
- Use proper care and good procedures in handling, lifting, installing, operating and maintaining the equipment.
- Casing pressure must not exceed 25 PSI (1725 mbar) gauge. Do not pressurize vented cavities from an external source, nor restrict the vents without first consulting Roots.
- Do not use air blowers on explosive or hazardous gases.
- Other potential hazards to safety may also be associated with operation of this equipment. All personnel working in or passing through the area should be trained to exercise adequate general safety precautions.

Operating Limitations

A ROOTS blower or exhauster must be operated within certain approved limiting conditions to enable continued satisfactory performance. Warranty is contingent on such operation.

Maximum limits for pressure, temperature and speed are specified in TABLE 1 for various models & sizes of blowers & exhausters. These limits apply to all units of normal construction, when operated under standard atmospheric conditions. Be sure to arrange connections or taps for instruments, thermometers and pressure or vacuum gauges at or near the inlet and discharge connections of the unit. These, along with a tachometer, will enable periodic checks of operating conditions.

PRESSURE – The pressure rise, between inlet and discharge, must not exceed the figure listed for the specific unit frame size concerned. Also, in any system where the unit inlet is at a positive pressure above atmosphere a maximum case rating of 25 PSI gauge (1725 mbar) should not be exceeded without first consulting Roots. Never should the maximum allowable differential pressure be exceeded.

On vacuum service, with the discharge to atmospheric pressure, the inlet suction or vacuum must not be greater than values listed for the specific frame size.

TEMPERATURE – Blower & exhauster frame sizes are approved only for installations where the following temperature limitations can be maintained in service:

- Measured temperature rise must not exceed listed values when the inlet is at ambient temperature. Ambient is considered as the general temperature of the space around the unit. This is not outdoor temperature unless the unit is installed outdoors.
- If inlet temperature is higher than ambient, the listed allowable temperature rise values must be reduced by 2/3 of the difference between the actual measured inlet temperature and the ambient temperature.
- The average of the inlet and discharge temperature must not exceed 250°F. (121°C).
- The ambient temperature of the space the blower/motor is installed in should not be higher than 120°F (48.8°C).

SPEED – These blowers & exhausters may be operated at speeds up to the maximum listed for the various frame sizes. They may be direct coupled to suitable constant speed drivers if pressure/temperature conditions are also within limits. At low speeds, excessive temperature rise may be a limiting factor.

Special Note: The listed maximum allowable temperature rise for any particular blower & exhauster may occur well before its maximum pressure or vacuum rating is reached. This may occur at high altitude, low vacuum or at very low speed. The units' operating limit is always determined by the maximum rating reached first. It can be any one of the three: Pressure, Temperature or Speed.

Lubrication

For Units with Splash Lubrication on Both Ends

Bearings and oil seals are lubricated by the action of the timing gears or oil slingers which dip into the main oil sumps

causing oil to splash directly on gears and into bearings and seals. A drain port is provided below each bearing to prevent an excessive amount of oil in the bearings. Seals located inboard of the bearings in each headplate effectively retain oil within the sumps. Any small leakage that may occur should the seals wear passes into a cavity in each vented headplate and is drained downward.

Oil sumps on each end of the blower are filled by removing top vent plugs, Item (25), and filling until oil reaches the middle of the oil level sight gauge when the unit is not operating, Item (45 or 53), DO NOT FILL PAST THE MIDDLE OF THE SIGHT GLASS.

Initial filling of the sumps should be accomplished with the blower not operating, in order to obtain the correct oil level. Approximate oil quantities required for blowers of the various models and configurations are listed in Table 3. Use a good grade of industrial type non-detergent, rust inhibiting, anti-foaming oil and of correct viscosity per Table 2. ***ROOTS synthetic oil (Roots P/N 813-106-) is specified and recommended.** Roots does not recommend automotive type lubricants, as they are not formulated with the properties mentioned above.

The oil level may rise or fall on the gauge during operation, to an extent depending somewhat on oil temperature and blower speed.

Proper lubrication is usually the most important single consideration in obtaining maximum service life and satisfactory operation from the unit. Unless operating conditions are quite severe, a weekly check of oil level and necessary addition of lubricant should be sufficient. During the first week of operation, check the oil levels in the oil sumps about once a day, and watch for leaks. Replenish as necessary. Thereafter, an occasional check should be sufficient. It is recommended that the oil be changed after initial 100 hours of operation. Frequent oil changing is not necessary unless the blower is operated in a very dusty location.

Normal life expectancy of petroleum based oils is about 2000 hours with an oil temperature of about 180°F (82°C). As the oil temperature increases by increments of 15-18°F (8°C - 10°C), the life is reduced by half. Example: Oil temperatures of 210-216°F (99°C - 102°C) will produce life expectancy of 1/4 or 500 hours. Therefore, it is considered normal to have oil change periods of 500 hours with petroleum based oils.

Normal life expectancy of ROOTS™ Synthetic Oil is about 4000 to 8000 hours with an oil temperature of about 180°F (82°C). As the oil temperature increases by increments of 15-18°F (8°C - 10°C), the life is reduced by half. Example: Oil temperatures of 210-216°F (99°C - 102°C) will produce life expectancy of 1/4 or 1000 to 2000 hours.

NOTE: To estimate oil temperature, multiply the discharge temperature of the blower by 0.80. Example: if the discharge air temperature of the blower is 200° F, it is estimated that the oil temperature is 160° F.

*ROOTS™ Synthetic Oil & Grease is superior in performance to petroleum based products. It has high oxidation stability, excellent corrosion protection, extremely high film strength and low coefficient of friction. Typical oil change intervals are increased 2-3 times over petroleum based lubricants. Also, ROOTS™ Synthetic Oil is 100% compatible with petroleum based oils. Simply drain the oil in the blower and refill the reservoirs with ROOTS™ Synthetic Oil to maintain optimum performance of your ROOTS™ blower.

Operation

Before operating a blower under power for the first time, recheck the unit and the installation thoroughly to reduce the likelihood of avoidable troubles. Use the following procedure check list as a guide, but consider any other special conditions in the installation.

- Be certain that no bolts, tools, rags, or debris have been left in the blower air chamber or piping.
- If an outdoor intake without filter is used, be sure the opening is located so it cannot pick up dirt and is protected by a strong screen or grille. Use of the temporary protective screen as described under INSTALLATION is strongly recommended.
- Recheck blower leveling, drive alignment and tightness of all mounting bolts if installation is not recent. If belt drive is used, adjust belt tension correctly.
- Turn drive shaft by hand to make sure impellers still rotate without bumping or rubbing at any point.
- Ensure oil levels in the main oil sumps are correct.
- Check lubrication of driver. If it is an electric motor, be sure that power is available and that electrical overload devices are installed and workable.
- Open the manual unloading valve in the discharge air line. If a valve is in the inlet piping, be sure it is open.
- Bump blower a few revolutions with driver to check that direction of rotation agrees with arrow near blower shaft, and that both coast freely to a stop.

After the preceding points are cleared, blower is ready for trial operation under “no-load” conditions. The following procedure is suggested to cover this initial operation test period.

- a. Start blower, let it accelerate to full speed, then shut off. Listen for knocking sounds, both with power on and as speed slows down.
- b. After blower comes to a complete stop, repeat above, but let blower run 2 or 3 minutes. Check for noises, such as knocking sounds.
- c. After blower comes to a complete stop, operate blower for about 10 minutes unloaded. Check oil levels. Observe cylinder and headplate surfaces for development of hot spots such as burned paint, indicating impeller rubs. Be aware of any noticeable increase in vibration.

Assuming that all trials have been satisfactory, or that necessary corrections have been made, the blower should now have a final check run of at least one hour under normal operating conditions. After blower is restarted, gradually

close the discharge unloading valve to apply working pressure. At this point it is recommended that a pressure gauge or manometer be connected into the discharge line if not already provided, and that thermometers be in both inlet and discharge lines. Readings from these instruments will show whether pressure or temperature ratings of the blower are being exceeded.

During the final run, check operating conditions frequently and observe the oil levels at reasonable intervals. If excessive noise or local heating develops, shut down immediately and determine the cause. If either pressure rise or temperature rise across the blower exceeds the limit specified in this manual, shut down and investigate conditions in the piping system. Refer to the TROUBLESHOOTING CHECKLIST for suggestions on various problems that may appear.

The blower should now be ready for continuous duty operation at full load. During the first few days make periodic checks to determine whether all conditions remain steady, or at least acceptable. This may be particularly important if the blower is supplying air to a process system where conditions can vary. At the first opportunity, stop the blower and clean the temporary inlet protective screen. If no appreciable amount of debris has collected, the screen may be removed. See comments under INSTALLATION. At this same time, verify leveling, coupling alignment or belt tension, and mounting bolt tightness.

Should operating experience prove that blower capacity is a little too high for the actual air requirements, a small excess may be blown off continuously through the manual unloading or vent valve. Never rely on the pressure relief valve as an automatic vent. Such use may cause the discharge pressure to become excessive, and can also result in failure of the valve itself. If blower capacity appears to be too low, refer to the TROUBLESHOOTING CHECKLIST.

Vibration Assessment Criteria

With measurements taken at the bearing locations on the housings, see chart below for an appropriate assessment guide for rotary lobe blowers rigidly mounted on stiff foundations.

In general, blower vibration levels should be monitored on a regular basis and the vibration trend observed for progressive or sudden change in level. If such a change occurs, the cause should be determined through spectral analysis.

As shown on the chart below, the level of all pass vibration will determine the need to measure discrete frequency vibration levels and the action required.

| All Pass Vibration (in/sec) | Discrete Frequency Vibration (in/sec) | Action |
|-----------------------------------|---------------------------------------|-------------|
| 0.45 or less | N/R | Acceptable |
| Greater than 0.45 but 1.0 or less | 0.45 or less @ any frequency | Acceptable |
| | Greater than 0.45 @ any frequency | Investigate |
| Greater than 1.0 | Less than 1.0 | Investigate |
| | Greater than 1.0 | Investigate |

Troubleshooting Checklist

| Trouble | Item | Possible Cause | Remedy |
|---|------|---|--|
| No flow | 1 | Speed too low | Check by tachometer and compare with published performance |
| | 2 | Wrong rotation | Compare actual rotation with Figure 1 Change driver if wrong |
| | 3 | Obstruction in piping | Check piping, valves, silencer to assure open flow path |
| Low capacity | 4 | Speed too low | See item 1, If belt drive, check for slippage and readjust tension |
| | 5 | Excessive pressure rise | Check inlet vacuum and discharge pressure and compare with Published performance |
| | 6 | Obstruction in piping | See item 3 |
| | 7 | Excessive slip | Check inside of casing for worn or eroded surfaces causing excessive clearances |
| Excessive power | 8 | Speed too high | Check speed and compare with published performance |
| | 9 | Excessive pressure rise | See Item 5 |
| | 10 | Impeller rubbing | Inspect outside of cylinder for high temperature areas, then check for impeller contact at these points. Correct blower mounting, drive alignment |
| | 11 | Scale, sludge, rust or product build up | Clean blower appropriately |
| Damage to bearings or gears | 12 | Inadequate lubrication | Check oil sump levels in gear and drive end headplates |
| | 13 | Excessive lubrication | Check oil levels. If correct, drain and refill with clean oil of recommended grade |
| | 14 | Excessive pressure rise | See Item 5 |
| | 15 | Coupling misalignment | Check carefully. Realign if questionable |
| | 16 | Excessive belt tension | Readjust for correct tension |
| Vibration | 17 | Misalignment | See Item 15 |
| | 18 | Impellers rubbing | See Item 10 |
| | 19 | Worn bearings/gears | Check gear backlash and condition of bearings, and replace as indicated |
| | 20 | Unbalanced or rubbing impeller | Scale or process material may build up on casing and impellers, or inside impellers. Remove build-up to restore original clearances and impeller balance |
| | 21 | Driver or blower loose | Tighten mounting bolts securely |
| | 22 | Piping resonances | Determine whether standing wave pressure pulsations are present in the piping |
| | 23 | Scale/sludge build-ups | Clean out interior of impeller lobes to restore dynamic balance |
| Driver stops, or will not start | 24 | Casing strain | Re-work piping alignment to remove excess strain |
| | 25 | Impeller stuck | Check for excessive hot spot on headplate or cylinder. See item 10. Look for defective shaft bearing and/or gear teeth |
| | 26 | Scale, sludge, rust or product build-up | Clean blower appropriately |
| Excessive breather | 27 | Broken seal | Replace seals |
| Blow-by or excessive oil leakage to vent area | 28 | Defective O-ring | Replace seals and O-ring |
| Excessive oil leakage in vent area | 29 | Defective/plugged breather | Replace breather and monitor oil leakage |
| | 30 | Oil level too high | Check sump levels in gear and drive headplates. |
| | 31 | Oil type or viscosity incorrect | Check oil to insure it meets recommendations. Drain then fill with clean oil of recommended grade. |
| | 32 | Blower running hot | Check blower operating conditions to ensure they are within the operating limitations defined in this manual. |

Inspection & Maintenance: Universal RAI® series blowers

A good program of consistent inspection and maintenance is the most reliable method of minimizing repairs to a blower. A simple record of services and dates will help keep this work on a regular schedule. Basic service needs are:

- Lubrication
- Checking for hot spots
- Checking for increases or changes in vibration and noise
- Recording of operating pressures and temperatures

Above all, a blower must be operated within its specified rating limits, to obtain satisfactory service life.

A newly installed blower should be checked often during the first month of full-time operation. Attention there after may be less frequent assuming satisfactory performance. Lubrication is normally the most important consideration and weekly checks of lubricant levels in the gearbox and bearing reservoirs should be customary. Complete oil change schedules are discussed under **LUBRICATION**.

Driver lubrication practices should be in accordance with the manufacturer's instructions. If direct connected to the blower through a lubricated type coupling, the coupling should be checked and greased each time blower oil is changed. This will help reduce wear and prevent unnecessary vibration. In a belted drive system, check belt tension periodically and inspect for frayed or cracked belts.

In a new, and properly installed, unit there is no contact between the two impellers, or between the impellers and cylinder or headplates. Wear is confined to the bearings (which support and locate the shafts) the oil seals, and the timing gears. All are lubricated and wear should be minimal if clean oil of the correct grade is always used. Seals are subject to deterioration as well as wear, and may require replacement at varying periods.

Shaft bearings are designed for optimum life under average conditions with proper lubrication and are critical to the service life of the blower. Gradual bearing wear may allow a shaft position to change slightly, until rubbing develops between impeller and casing. This will cause spot heating, which can be detected by observing these surfaces. Sudden bearing failure is usually more serious. Since the shaft and impeller are no longer supported and properly located, extensive general damage to the blower casing and gears is likely to occur.

Oil seals should be considered expendable items, to be replaced whenever drainage from the headplate vent cavity becomes excessive or when the blower is disassembled for

any reason. Some oil seal leakage may occur since an oil film under the lip is required for proper operation. Periodically leaked oil should be wiped off from surfaces. Minor seal leakage should not be considered as indicating seal replacement.

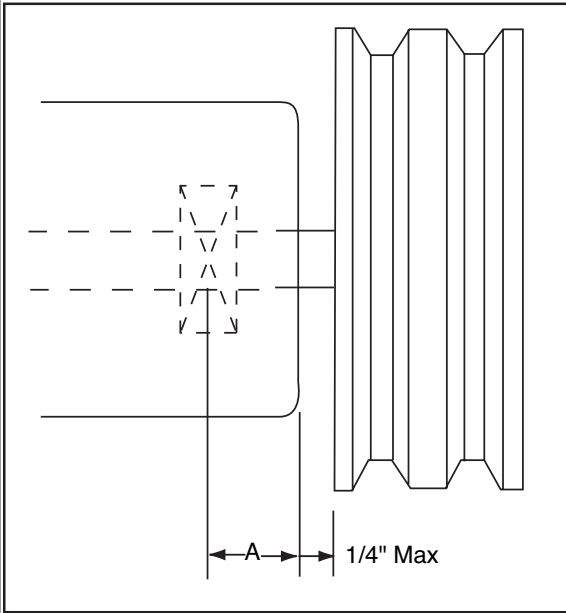
Timing gear wear, when correct lubrication is maintained, should be negligible. Gear teeth are cut to provide the correct amount of backlash, and gears correctly mounted on the shafts will accommodate a normal amount of tooth wear without permitting contact between lobes of the two impellers. However, too high an oil level will cause churning and excessive heating. This is indicated by unusually high temperature at the bottom of the gear housing. Consequent heating of the gears will result in loss of tooth-clearance, backlash and rapid wear of the gear teeth usually will develop. Continuation of this tooth wear will eventually produce impeller contacts (knocking), and from this point serious damage will be unavoidable if blower operation is continued. A similar situation can be produced suddenly by gear tooth fracture, which is usually brought on by sustained overloading or momentary shock loads.

Problems may also develop from causes other than internal parts failure. Operating clearances within a blower are only a few thousandths of an inch. This makes it possible for impeller interference or casing rubs to result from shifts in the blower mounting, or from changes in piping support. If this type of trouble is experienced, and the blower is found to be clean, try removing mounting strains. Loosen blower mounting bolts and reset the leveling and drive alignment. Then tighten mounting again, and make sure that all piping meets blower connections accurately and squarely. Foreign materials in the blower will also cause trouble, which can only be cured by disconnecting the piping and thoroughly cleaning the blower interior.

A wide range of causes & solutions for operating troubles are covered in the **TROUBLE SHOOTING CHECKLIST**. The remedies suggested should be performed by qualified mechanics with a good background. Major repairs generally are to be considered beyond the scope of maintenance, and should be referred to an authorized Roots distributor.

Warranty failures should not be repaired at all, unless specific approval has been obtained through Roots before starting work. Unauthorized disassembly within the warranty period may void the warranty.

Figure 2 - Allowable Overhung Loads for V-Belt Drives Universal RAI®/URAI®-DSL Units



$$\text{Belt Pull lbs} = \frac{252100 \cdot \text{Motor HP}}{\text{Blower RPM} \cdot \text{Sheave Diameter}}$$

$$\text{Shaft Load (lb.in)} = \text{Belt Pull} \cdot \left(A + \frac{1}{4} + \frac{\text{Sheave Width}}{2} \right)$$

| Frame Size | Dimension "A" | Max Allowable Shaft Load (lb-in) | Min Sheave Diameter |
|------------|---------------|----------------------------------|---------------------|
| 59 | 1.13 | 1,325 | 6.00 |

NOTE:

Arc of sheave belt contact on the smaller sheave not to be less than 170°

Driver to be installed on the inlet side for vertical units, and on the drive shaft side for horizontal units.

Roots recommends the use of two or more 3V, 5V or 8V matched set or banded belts and sheaves.

Specified Lubricants

ROOTS Synthetic Oil: ISO-VG-320 Grade

| | Part Number |
|---------------|-------------|
| Quart | 13106004 |
| Gallon | 13106005 |
| Case (12 qts) | 13106007 |

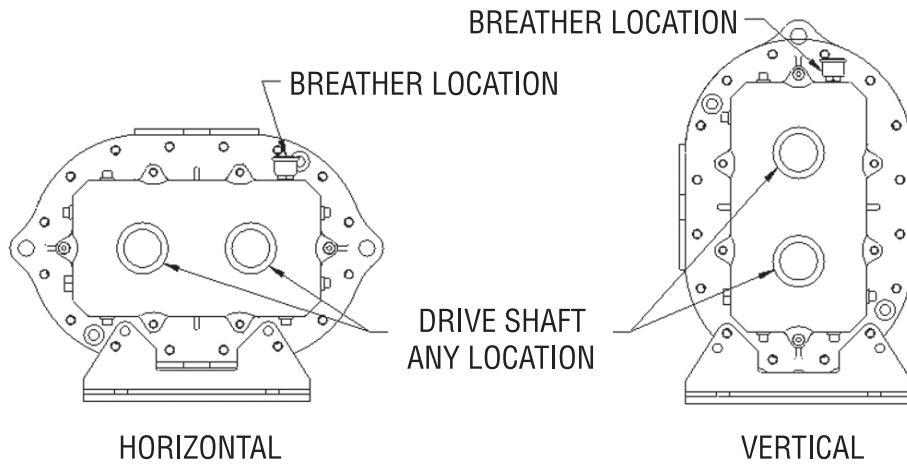
ROOTS Synthetic Oil: ISO-VG-220 Grade

| | Part Number |
|---------------|-------------|
| Quart | 13106001 |
| Gallon | 13106002 |
| Case (12 qts) | 13106008 |

ROOTS Synthetic Oil: ISO-VG-150 Grade

| | Part Number |
|----------------|-------------|
| Quart | 13106020 |
| Gallon | 13106021 |
| Case (12 qts) | 13106023 |
| 5 Gallon Pail | 13106022 |
| 55 Gallon Drum | 13106025 |

Drive End Breather Orientation for URA-DSL blowers with Oil Lube



URAI DSL BREATHER ORIENTATION

Table 1 - URAI, URAI-DSL Blowers,
Maximum Allowable Operating Conditions

| Frame Size | Gear Diameter (Inch) | Speed RPM | Temp. Rise Deg F (Deg C) | Delta Pressure PSI (mbar) | Inlet Vacuum INHG (mbar) |
|------------|----------------------|-----------|--------------------------|---------------------------|--------------------------|
| 59 | 5 | 2,850 | 225 (125) | 7 (483) | 15 (500) |

Table 2 - Recommended Oil Grades

| Ambient Temperature °F (°C) | ISO Viscosity No. |
|-----------------------------|-------------------|
| Above 90° (32°) | 320 |
| 32° to 90° (0° to 32°) | 220 |
| 0° to 32° (-18° to 0°) | 150 |
| Below 0° (-18°) | 100 |

Ambient temperature is defined as the temperature of the space in which the blower and drive are located.

Table 3 - Approximate Oil Sump Capacities

These capacities are provided to assist in stocking the correct amount of oil. Exact sump capacities may differ slightly. See "Lubrication" section for proper filling instructions.

URAI-DSL Splash Lubricated Blowers

| Frame Size | Gear End Capacity Fl. Oz (Liters) | Drive End Capacity Fl. Oz. (Liters) |
|------------|-----------------------------------|-------------------------------------|
| 59 | 27.6 (.82) | 14.8 (.44) |

Basic Connection & Drive Shaft Information

URAI DSL AIR BLOWERS (with Dual Splash Lubrication DSL)

| BOM# | FRAME SIZE | INLET/DISCHARGE CONN. | SHAFT DIAMETER | BARE WEIGHT |
|-----------|------------|-----------------------|----------------|-------------|
| T30361020 | 59 | 4" NPT | 1.125 | 209 |

Universal RAI air blowers include detachable mounting feet which permit vertical or horizontal installation. The units are center timed for rotation in either direction. The bearings on the URAI are grease lubricated on the drive end and splash lubricated on the gear end. The URAI-DSL is splash lubricated on BOTH ends.

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MODEL MSR-DC OIL BURNER



MODEL MSR-DC SPECIFICATIONS

FIRING CAPACITIES - MODEL MSR-DC

0.50 To 2.75 GALLONS PER HOUR
70,000 TO 385,000 BTU/HR INPUT

FUELS - MODEL MSR-DC

Use No. 1 or No. 2 Heating Oil (ASTM D-396), Kerosene, Diesel or Jp8 Jet Fuel.

- NEVER attempt to use gasoline as a fuel for your burner, as it is more combustible and could result in a serious explosion.
- NEVER burn garbage or refuse in the heating unit.
- NEVER try to ignite by tossing burning paper or other materials into the heating unit.
- NEVER burn waste or crankcase oil in the heating unit.

ELECTRICAL - MODEL MSR-DC

Power supply 13.0VDC Minimum (at Battery)
Motor 4500 RPM (Std) or 3950 RPM (low RPM), Ball Bearing, Permanent Magnet
Ignition 20,000V/28MA/50VA Secondary, Intermittent Duty Electronic Ignitor

DIMENSIONS - MSR-DC (Standard

Height.....12½"
Width13"
Depth6⅞"

FUEL UNIT

Suntec and DanFoss brands

MOUNTING

Rigid Flange, Adjustable Flange or Base mount.

DC OIL BURNER ELECTRICAL CONSIDERATIONS

- * Not all generators are equally capable. A minimum of 13.0 volts must be provided at the battery.
- * Generators should be operated at the maximum rated RPM during burner operation.
- * Good quality batteries are strongly suggested. Batteries with higher Cold Cranking Amp (CCA) rating and deep draw/marine type batteries are recommended.
- * Use automotive rated battery cabling. All other wiring should be OEM suggested wire type and gauge.
- * Protect all wiring connection points with dielectric grease.
- * Ambient temperature impacts electrical requirements. Higher temperatures will result in higher amp draws.
- * Increased pump operating pressure settings will increase amp draw.
- * Higher gallon rate nozzles and accompanying wider air band openings will increase amp draw.

INSTALLATION OF BURNER

INSTALLATION OF THE BURNER MUST BE DONE BY A QUALIFIED INSTALLER IN ACCORDANCE WITH REGULATIONS OF THE NATIONAL FIRE PROTECTION STANDARD FOR OIL-BURNING EQUIPMENT, NFPA NO. 31, AND IN COMPLETE ACCORDANCE WITH ALL LOCAL CODES AND AUTHORITIES HAVING JURISDICTION.

A QUALIFIED INSTALLER IS THE PERSON WHO IS RESPONSIBLE FOR THE INSTALLATION AND ADJUSTMENT OF THE EQUIPMENT AND WHO IS LICENSED TO INSTALL OIL-BURNING EQUIPMENT IN ACCORDANCE WITH ALL CODES AND ORDINANCES. WARRANTY IS VOIDED IF NOT INSTALLED BY SERVICE PERSON.

**THESE INSTRUCTIONS SHOULD BE AFFIXED TO THE BURNER
OR ADJACENT TO THE HEATING APPLIANCE.**



TO THE CLEANING EQUIPMENT OWNER

Since 1970, Wayne has supplied the hot water pressure washer cleaning equipment industry with oil burners. You are obtaining a quality burner unsurpassed in engineering design and product development. It will provide you with many years of efficient trouble-free operation, if properly installed and serviced. Please read this manual carefully.

Wayne warrants its burners specifically to those who have purchased it for resale, including your dealer. If, in any case, you have a problem with your burner, or its installation, you should contact your dealer or the cleaning equipment manufacturer for assistance.

FUEL UNITS AND OIL LINES

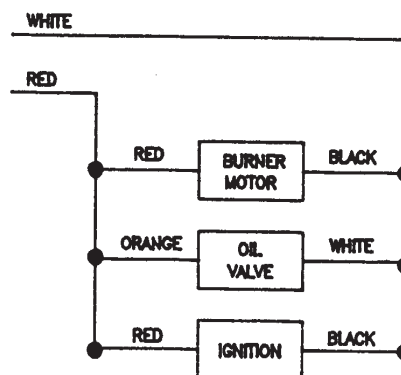
The model MSR-DC oil burner is provided with a single stage 3450 RPM fuel unit with by-pass plug removed for a single pipe installation; the by-pass plug for two pipe (inlet and return) is provided in the plastic bag attached to the fuel unit.

The installation of fuel filters are recommended. Check supply tank for sludge accumulation and leakage. Use only flare fittings on all piping and connections since compression fittings will eventually leak. With the system running, the vacuum should not exceed 12" mercury for single stage units. For ease of servicing, install a shut off valve near burner.

WIRING

The MSR-DC oil burner must be electrically wired and GROUNDED in accordance with local codes or in their absence, with National Electric Code ANS/NFPA No. 70-latest edition.

This oil burner requires a 12-volt DC power source. Use copper wire only not lighter than #12 awg. If a fused disconnect is used, it should be fused for a minimum of 20 amps. Refer to the wiring diagram in this manual or cleaning equipment manufacturers manual making sure the burner and controls are wired correctly.



AIR SUPPLY FOR COMBUSTION

The oil burner fired hot water pressure washer shall not be installed in an area where facilities for normal air circulation or infiltration are so limited as to interfere with ready attainment of all necessary for proper combustion and venting. When the heating appliance is installed in a confined space, two permanent openings shall be provided. One near the top of the enclosure and one near the bottom. Each opening shall have a free area of not less than one square inch per 1000 BTU per hour (140 square inch per gph) of the total input rating of all the appliances in the enclosure. When the building is of unusually tight construction, has an air ventilating system, exhaust fans, process dryer or vented fireplaces, it is recommended that combustion air be supplied through two permanent openings. The openings shall communicate directly, or by means of ducts, with outdoors or such spaces (attic or crawl) that freely communicate with outdoors. Avoid linty environments. For additional venting information, refer to the regulations of the National Fire Protection Standard for oil burning equipment, ANSI/NFPA NO. 31-latest edition, or the cleaning equipment manufacturers recommendations.

NOZZLE AND AIR HANDLING PARTS SELECTION

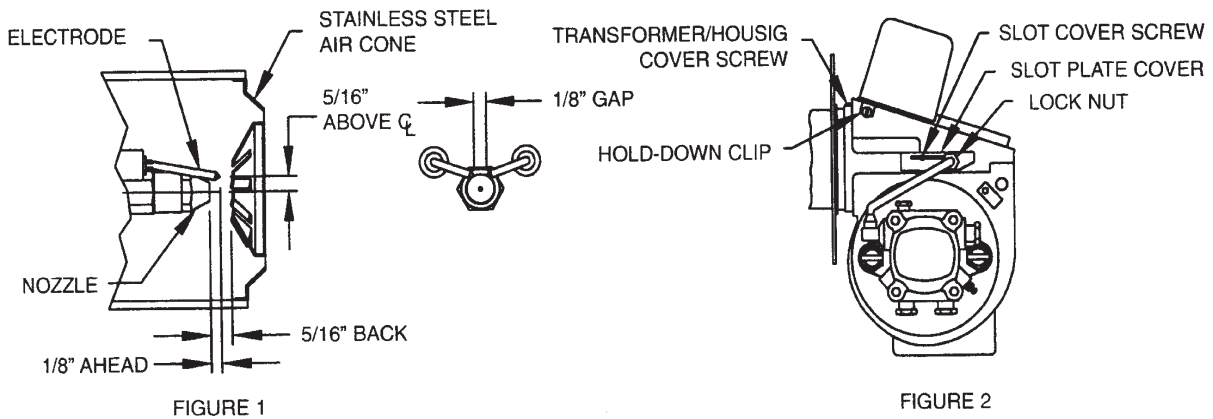
IMPORTANT: Thorough combustion and performance testing was done to establish the correct nozzle type and air handling parts on this MSR-DC oil burner. Under circumstance attempt to replace or alter the oil burner nozzle type or air handling parts (stainless steel flamelock, air cone, electrode support style static disc, blower wheel or slotted air circumstances attempt to fire the MSR-DC oil burner under its 1.00 gph minimum or over its 2.75 gph maximum input rating.



To remove the gun assembly once the burner has been installed on the appliance remove the ignitor/housing cover screw and loosen the screw in the hold-down clip and swing open the transformer. Next, disconnect the copper oil line where it attaches with a 7/16" hex flare nut on the gun assembly oil line adapter fitting and remove the 9/16" hex gun assembly locknut. Now, grasp the rear of the gun assembly where the oil line fitting adapter exits through the housing and pull oil line fitting adapter to the right out of the housing slot and slot plate cover. Gently lift, do not force, the rear of the gun assembly, rotating the oil line fitting adapter up a 45 degrees pulling the entire gun assembly out of the air tube and housing opening.

The recommended can be installed into the nozzle body adapter using the following steps. With the gun assembly removed from the burner, loosen the electrode clamp screw and rotate the electrodes up, out of the way of a nozzle wrench. Now, thread the nozzle into the adapter finger tight then tighten securely with a nozzle wrench. **CAUTION:** Do not over tighten. Next, reposition the electrodes as shown in figure 1. At this time reinstall the gun assembly into the burner using the preceding steps in reverse order. Position the nozzle face forward to a 5/16" setting behind the stainless steel air cone as shown in figure 1. Once in the required position, replace the 9/16" hex lock nut and the 7/16" hex flare nut on the gun assembly and tighten the slot cover screw (see figure 2).

CAUTION: Close the ignitor and observe for spring contact with the brass buss bars, taking care not to pinch the ignition transformer lead wires between the housing and cover plate. Reinstall the ignitor/housing cover screw and tighten the screw in the hold down clip (see figure 2).



STARTING PROCEDURE

PREPARATION STEPS

1. Calibrate and check operation of combustion analysis equipment, CO₂ (carbon dioxide) or O₂ (oxygen) analyzer, smoke pump tester, fuel gas thermometer and oil pressure/vacuum gages. Follow the manufacture recommendation for proper calibration and check out.
2. Install oil pressure gage and vacuum gage in the outlet pressure and inlet ports of the fuel unit.
3. Set oil burner slotted air band shutter 25% open.

STARTING BURNER

1. Turn off the main power switch to the burner and appliance.
2. Be sure main fuel tank is filled and all manual valves are open between the fuel tank and the burner.
3. Turn on the main power switch to the burner and appliance.
4. Prime the fuel pump per its manufacturers recommendations, check fuel unit for 100 psi delivery pressure and check system vacuum (see paragraphs under Fuel Units and Oil Lines).

CAUTION: Do not run fuel unit dry for more than five minutes or damage to the fuel unit could result.



5. Once the fuel unit is primed (no signs of air in oil bleeder port discharge), close the bleed port. Burner will ignite.
6. When flame is established, make a temporary air adjustment to the slotted air band for a visually clean combustion smoke observed from the appliance vent. Allow the appliance to warm up approximately five minutes or until the water temperature reaches that recommended by the cleaning equipment manufacture.
7. Adjust the slotted air band shutter until a #1 to #2 smoke (Shell Bacharach scale) is obtained at the appliance vent.
8. Check CO₂ (carbon dioxide) and/or O₂ (oxygen) percentages and smoke in the flue gas at the appliance vent. In general, CO₂ readings should be in the 10% to 12% range and O₂ readings in the 7.4% to 4.7% range.
9. Once the desired combustion results are attained, securely tighten slotted air band screw and check that controls on the appliance are adjusted per the cleaning equipment manufactures instruction sheets. Remove oil pressure and vacuum gages from the fuel unit and reinstall pipe plug fittings.
10. Check burner lighting with hot chamber, then allow burner and appliance to sufficiently cool. Then check burner lighting with a cold chamber.

SUGGESTION: all new installations should be reinspected after one or two weeks of normal operation.

MAINTENANCE

OILING MOTOR – The MSR_DC oil burner is provided with a ball bearing shaft motor. Ball-bearing motors do not require oiling under normal service conditions.

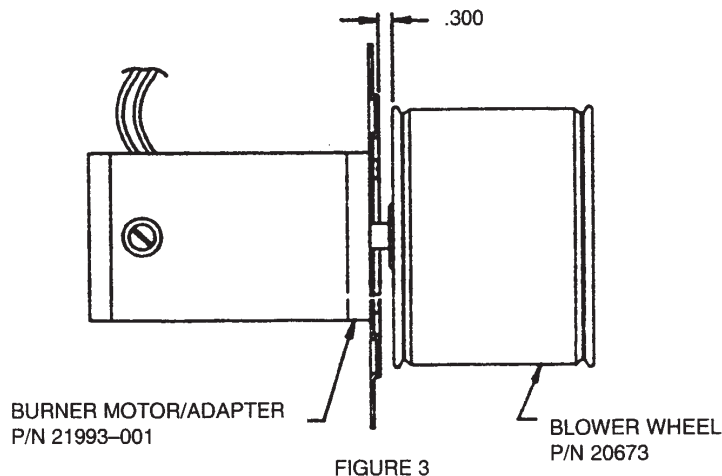
FILTER – The oil filter cartridge should be replaced, or sediment cleaned, periodically so the fuel oil will not become contaminated and plug up the fuel pump and nozzle of oil burner.

NOZZLE – The nozzle should be changed at least once each year or twice a year if the cleaning equipment is used daily through the year and should poor combustion occur. Replace with the proper nozzle.

COMPONENTS – If for any reason any of the burner parts have to be replaced, always use parts recommended by the manufacturer. Specify part numbers and description when ordering. (IN ALL COMMUNICATIONS STATE BURNER MODEL AND SIX DIGIT SPECIFICATION NUMBER).

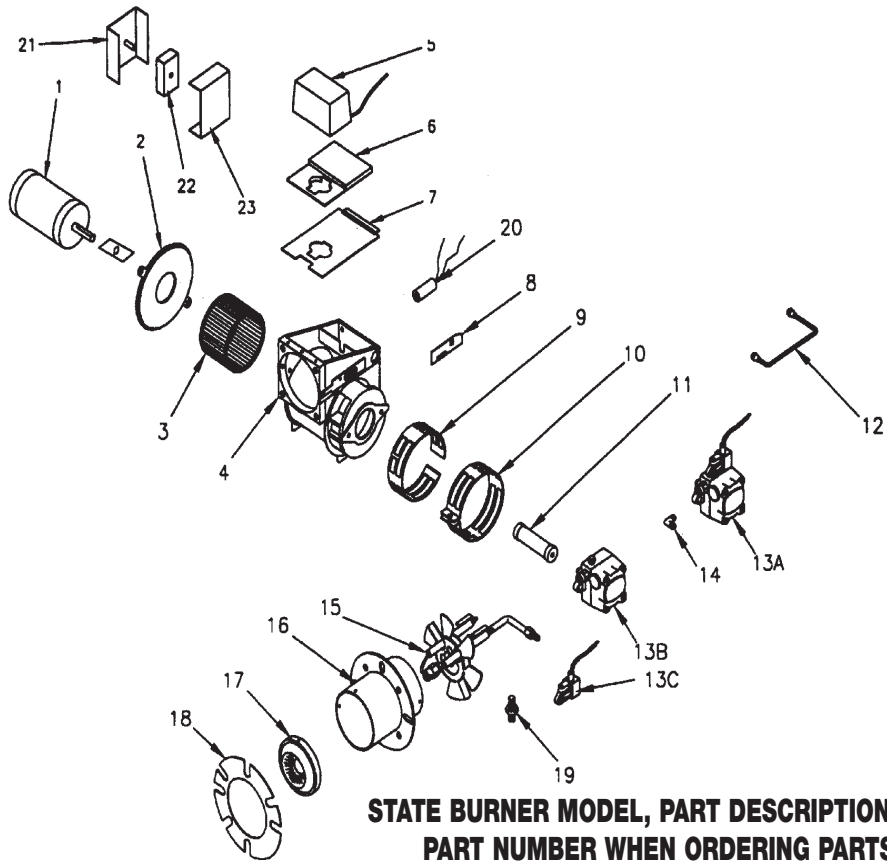
ELECTRODE SETTINGS – This is very important for reliable ignition of the oil; check these once a year in accordance with the instructions provided in this manual. Replace electrodes if worn excessively or if porcelain insulator is oil soaked or cracked (See Figure 1).

FAN & BLOWER HOUSING – This must be kept clean, free of dirt and lint; open transformer to check fan blades from above. Be sure the electric power is off on burner when the transformer is opened up for this inspection. Should the blower wheel be removed for replacement or cleaning, reinstall as shown in figure 3.

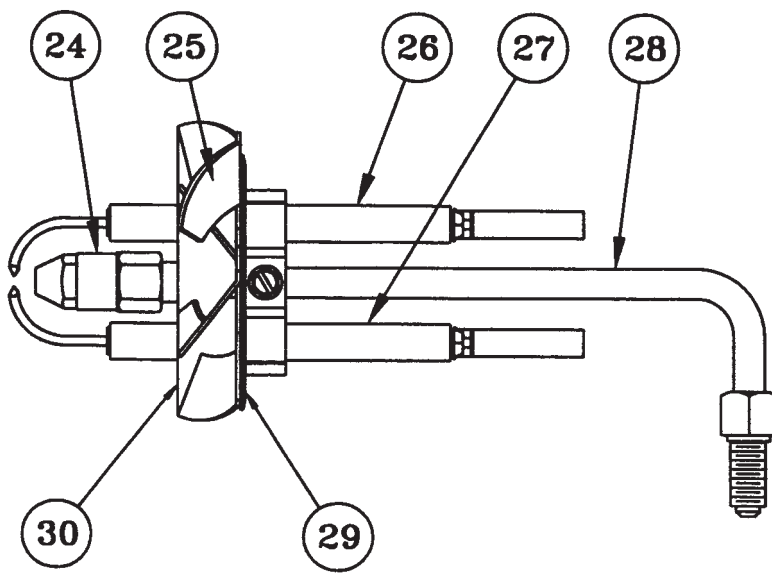




BURNER COMPONENTS - MODEL MSR-DC

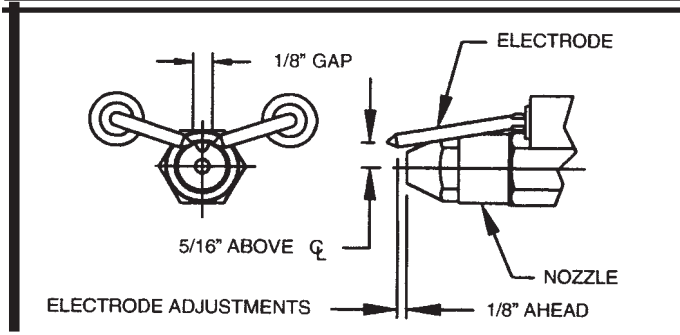
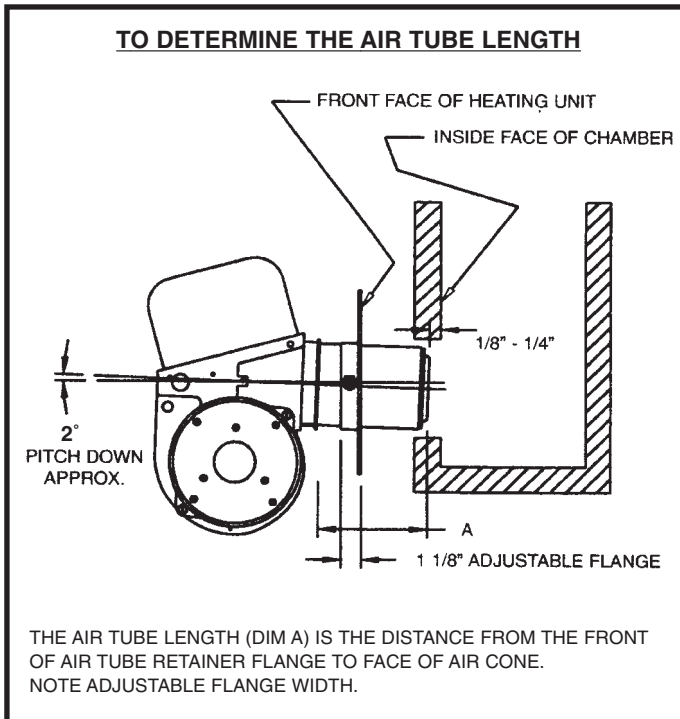


AIR TUBE & GUN ASSEMBLY DETAILS MODEL MSR-DC



| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|-------------|-------------------------------|
| 1 | 1 | 8046448-1 | MOTOR 1/8 STANDARD |
| | 1 | | MOTOR 1/8 LOW AMP |
| 2 | 1 | 8046448-2 | MOTOR ADAPTER |
| 3 | 1 | 8046448-3 | BLOWER WHEEL 3 1/2 X 4 1/4 |
| 4 | 1 | 8046448-4 | BURNER HOUSING |
| 5 | 1 | 8046448-5 | IGNITOR - 12VDC |
| 6 | 1 | 8046448-6 | MOUNTING BASE |
| 7 | 1 | 8046448-7 | HOUSING COVER |
| 8 | 1 | 8046448-8 | SLOT COVER PLATE |
| 9 | 1 | 8046448-9 | INNER AIR BAND |
| 10 | 1 | 8046448-10 | OUTER AIR BAND |
| 11 | 1 | 8046448-11 | COUPLING |
| 12 | 1 | 8046448-12 | OIL LINE ASSEMBLY 6" |
| | 1 | | OIL LINE ASSEMBLY 8" |
| 13 | 1 | 8046448-13A | FUEL UNIT: SUNTEC COMBO |
| | 1 | 8046448-13B | FUEL UNIT: SUNTEC |
| | 1 | 8046448-13C | FUEL SOLENOID |
| 14 | 1 | 8046448-14 | ELBOW (USE WITH 13A) |
| 15 | 1 | 8046448-15 | GUN ASSEMBLY |
| 16 | 1 | 8046448-16 | AIR TUBE/FLANGE ASM |
| 17 | 1 | 8046448-17 | AIR CONE - #3A |
| | 1 | | AIR CONE - #4A |
| 18 | 1 | 8046448-18 | GASKET |
| 19 | 1 | 8046448-19 | CONNECTOR (USE WITH 13B, 13C) |
| 20 | 1 | 8046448-20 | CAD CELL |
| 21 | 1 | 8046448-21 | CONTROL BOX |
| 22 | 1 | 8046448-22 | TIMER, DROP OUT |
| 23 | 1 | 8046448-23 | COVER, CONTROL BOX |
| 24 | 1 | 8046448-24 | ADAPTOR, NOZZLE SUPPORT |
| 25 | 1 | 8046448-25 | ELECTRODE SUPPORT ASM |
| 26 | 1 | 8046448-26 | ELECTRODE (RH) |
| 27 | 1 | 8046448-27 | ELECTRODE (LH) |
| 28 | 1 | 8046448-28 | OIL PIPE/FITTING |
| 29 | 1 | 8046448-29 | DISC/BAFFLE PLATE |
| 30 | 1 | 8046448-30 | CAST STABILIZER |
| | 1 | | STAMPED STABILIZER |

| Suggested Combustion Chamber Dimensions Conversion or Upgrading Chamber Dimensions (In Inches) | | | | | |
|--|------------------|------------------|------------------|------------------|-----------------------|
| Firing Rate (G.H.P) | Square | | Round | Height | Floor to Nozzle |
| | Width | Length | | | |
| 0.85 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 |
| 1.00 | 9 | 9 | 10 $\frac{1}{8}$ | 12 $\frac{1}{2}$ | 5-6 |
| 1.25 | 10 | 10 | 11 $\frac{1}{4}$ | 12 $\frac{1}{2}$ | 5-6 |
| 1.35 | 10 $\frac{1}{2}$ | 10 $\frac{1}{2}$ | 11 $\frac{3}{4}$ | 12 $\frac{3}{4}$ | 5-6 |
| 1.50 | 11 | 11 | 12 $\frac{2}{8}$ | 13 | 5-6 |
| 1.65 | 11 $\frac{1}{2}$ | 11 $\frac{1}{2}$ | 13 | 13 $\frac{1}{4}$ | 5-6 |
| 2.00 | 12 $\frac{2}{8}$ | 12 $\frac{2}{8}$ | 14 $\frac{1}{4}$ | 13 $\frac{1}{2}$ | 6-7 |
| 2.50 | 14 $\frac{1}{4}$ | 14 $\frac{1}{4}$ | 16 | 14 | 7-8 |
| 3.00 | 15 $\frac{1}{2}$ | 15 $\frac{1}{2}$ | 17 $\frac{1}{2}$ | 15 | 7-8 |





WAYNE COMBUSTION SYSTEMS

801 GLASGOW AVE.
FORT WAYNE, IN 48803

LIMITED WARRANTIES FOR OIL AND GAS BURNERS, MADE BY WAYNE AND USED IN RESIDENTIAL INSTALLATIONS

WAYNE COMBUSTION SYSTEMS (“WAYNE”) warrants to those who purchase its **Oil Burner Models** for resale or for incorporation into a product of resale, that its burner is free from defects in material and workmanship under normal use and service for thirty-six (36) months from the date of manufacture. **ALL GAS BURNERS** manufactured by “WAYNE” will be similarly warranted for eighteen(18) months from date of manufacture except where original manufacture offers a greater warranty. (Reference #6 below) **THESE LIMITED WARRANTIES DO NOT APPLY UNLESS THE BURNER COVERED BY IT IS PROPERLY INSTALLED BY A QUALIFIED, COMPETENT TECHNICIAN, WHO IS LICENSED WHERE STATE AND/OR LOCAL CODES PREVAIL, AND WHO IS EXPERIENCED IN MAKING SUCH INSTALLATIONS, IN ACCORDANCE WITH NFPA #31 OF THE NATIONAL FIRE PROTECTION ASSOCIATION AND IN ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES.**

Any **IN-WARRANTY** burner component which is defective in material or workmanship will be either repaired or replaced as follows:

1. Fuel units, motors, transformers, gas valves, and controls should be returned to an authorized service station or distributor of WAYNE for determination of applicability of this LIMITED WARRANTY as to either repair or replacement, where said service station or distributor is reasonably available in the customer's locality. The manufacturers of burner components regularly publish and distribute listings showing the locations of their network of service stations. Where such local service is NOT available for the burner components described above or other burner parts are involved, these items should be returned, freight prepaid, to WAYNE Service Department, 801 Glasgow Ave, Fort Wayne, Indiana 46803.
2. Burners and/or component(s) determined to be covered under this LIMITED WARRANTY by WAYNE shall be repaired or replaced at WAYNE's sole option.
3. WAYNE is not responsible for any labor cost for the removal and replacement of said burner or burner components and equipment associated therewith.
4. A burner so repaired will then carry the LIMITED WARRANTY equal to the unexpired portion of the original burner LIMITED WARRANTY.
5. If inspection by WAYNE does **NOT** disclose any defect covered by this LIMITED WARRANTY, the burner or burner component(s) will be either repaired or replaced at the expense of the customer and WAYNE's regular charges will apply.
6. If the original manufacturer of a burner component offers a warranty greater than either of our LIMITED WARRANTIES described above, then this portion will be added to our LIMITED WARRANTY.

This LIMITED WARRANTY does **NOT** cover products which have been damaged as the result of accident, abuse, misuse, neglect, improper installations, improper maintenance or failure to operate in accordance with WAYNE's written instructions.

These LIMITED WARRANTIES do not extend to anyone except the first purchaser at retail and only when the burner is in the original installation site.

IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE SHALL BE LIMITED TO THE DURATION OF THE LIMITED EXPRESS WARRANTIES CONTAINED HEREIN. WAYNE EXPRESSLY DISCLAIMS AND EXCLUDES ANY LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES OF ANY NATURE FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY.

Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you. Also, some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. WAYNE neither assumes or authorizes any person to assume for WAYNE any other liability or obligation in connection with the sale of these products. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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WARRANTY RETURN GOODS POLICY

LIMITED WARRANTY

The Manufacturer warrants its products to be free from defects in material and workmanship for a period of twelve months from the date of shipment from the factory. The Manufacturer shall not be responsible for any damage resulting to or caused by its products by reason of installation, improper storage, unauthorized service, alteration of the products, neglect or abuse, or use of the product in a manner inconsistent with its design. The warranty does not extend to any component parts not manufactured by Manufacturer; however, Manufacturer's warranty herein shall not limit any warranties made by manufacturers of component parts which extend to Buyer.

Claims for defects in material and workmanship shall be made in writing to Manufacturer within ten days of discovery of defect. Manufacturer may either send a service representative or have the product returned to its factory at Buyer's expense for inspection. Upon notification of defect, Manufacturer will issue a return goods authorization number to Buyer. The return goods authorization number must accompany the product returned. If judged by the Manufacturer to be defective in material or workmanship, the product will be replaced or repaired at the option of the Manufacturer, free from all charges except authorized transportation. Buyer shall be responsible for all maintenance services consisting of lubrication and cleaning of equipment, replacing expandable parts, making minor adjustments, and performing operating checks, all in accordance with procedures outlined in Manufacturer's maintenance literature.

THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES AND NO REPRESENTATIONS, GUARANTEES, OR WARRANTIES, EXPRESS OR IMPLIED, (INCLUDING BUT NOT LIMITED TO A WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), ARE MADE BY THE MANUFACTURER IN CONNECTION WITH THE MANUFACTURE OR SALE OF ITS PRODUCTS. NO EMPLOYEE, DISTRIBUTOR, OR REPRESENTATIVE IS AUTHORIZED TO CHANGE THIS WARRANTY ON BEHALF OF MANUFACTURER.

THE REMEDIES OF BUYER SET FORTH HEREIN ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER REMEDIES. THE LIABILITY OF MANUFACTURER WHETHER IN CONTRACT, TORT, UNDER ANY WARRANTY, OR

OTHERWISE SHALL NOT EXTEND BEYOND ITS OBLIGATION TO REPAIR OR REPLACE, AT ITS OPTION ANY PRODUCT OR PART FOUND BY MANUFACTURER TO BE DEFECTIVE IN MATERIAL OR WORKMANSHIP. MANUFACTURER SHALL NOT BE LIABLE FOR COST OF INSTALLATION AND/OR REMOVAL OR BE RESPONSIBLE FOR DIRECT, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE.

GENERAL RETURNS OF MERCHANDISE

1. All returns must be pre-authorized
 - A. Please call our parts department for an RGA number
 - B. Please include RGA number on the outside of box
 - C. Include any required paper work or special instructions
 - D. Items returned without an RGA number will not be accepted
2. All returns are subject to a 20% restock charge.
3. Special items are non-returnable
 - A. Non-stock parts
 - B. Custom parts
 - C. If you are unsure about a parts status when ordering, ask your McLaughlin representative if the item fits on of the above conditions.
4. Items must be returned within thirty days of original order date.
5. Items not returned within 30 days from the date of RGA is issued will not be accepted.
6. The item(s) must be in new condition. Used item(s) are not returnable.

