

**RIDING TROWEL**

# **HDX615**

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## **PARTS & DECALS MANUAL**

Manual Part #: 079360P | Revision: B  
Language: English | Original Instructions



**For information regarding the following, please see the “HDX615 - Safety & Operator Manual”**

- Warranty Information
- Dealer Information
- How to identify the Model / Serial Numbers on the machine
- Engine Detail

# HDX615 RIDING TROWEL

## PARTS & DECAL MANUAL

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This manual covers the products listed below:

| <b><u>Part No.</u></b> | <b><u>Description</u></b>               |
|------------------------|-----------------------------------------|
| 075660                 | HDX615 Riding Trowel, 6-Boss, Dual Fuel |

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# **SECTION 1: PARTS**

## SECTION 1 PARTS

### Factory Service Information

This section contains the illustrated drawings and parts list for help in identifying and/or ordering replacement parts for your machine. Follow the instructions in the front section of this manual “Ordering Parts” when ordering replacement parts to ensure prompt and accurate delivery.

#### **NOTE**

All set screws have blue (LOC-TITE™) applied at the factory. If set screw is removed or loosened for any reason re-apply blue (LOC-TITE™).

#### **NOTE**

All grease fittings are capped with CAP PLUG GC-5 (AEC PN 015692) to protect the fitting. If cap becomes missing or damaged replace it as soon as possible.

#### **NOTE**

Anti-Seize is applied at the factory to all drive line coupling, gear box main and counter shafts and pitch control threaded rod assemblies. If these parts are disassembled re-apply a light coat of a graphite based anti-seize.

**ALL REFERENCES MADE TO LEFT/RIGHT SIDES IN THIS MANUAL ARE SITTING ON MACHINE (SOM)  
[i.e. Left / Right are in reference from a sitting position on the machine]**

We recommend AEC quality replacement parts, available from the AEC Customer Service Department or your nearest AEC Dealer.

Part numbers are subject to change without notice. Part numbers might be different outside of the United States of America. Use part numbers listed in the applicable parts list table when you place your order. If a part number changes, the AEC Customer Service Department or your nearest AEC dealer will have the latest part number for the replacement part.

Remember when you order replacement parts, you will need your **MODEL NUMBER** and **SERIAL NUMBER**. These are the numbers that you have recorded in the UNIT ID section of the “Safety and Operations Manual” or by looking on the unit Identification Plate. Please order replacement parts by the appropriate part number, not the item number.

This manual contains an illustrated parts list for help in ordering replacement parts for your machine. Follow the instructions below when ordering parts to ensure prompt and accurate delivery:

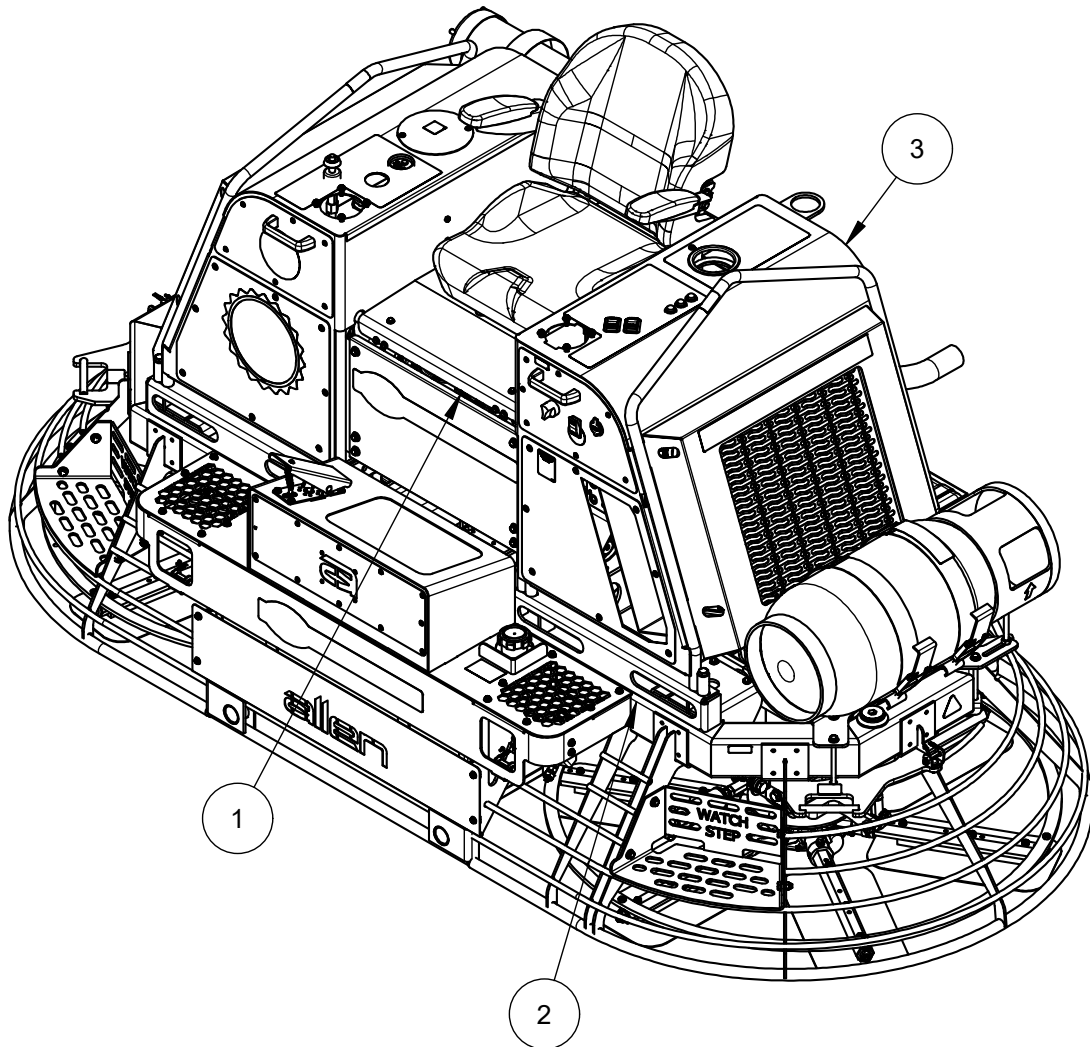
1. All orders for service parts - include the serial number for the machine. Shipment will be delayed if this information is not available.
2. Include correct description and part number
3. Specify exact shipping instructions, including the preferred routing and complete destination address.
4. **DO NOT** return parts to AEC without receiving written authorization from AEC. All authorized returns must be shipped pre-paid.
5. When placing an order, please contact the AEC Dealer nearest you.

### **NOTE**

All information, specifications, and illustrations in this manual are subject to change without notice and are based on the latest information at the time of publication.

## SECTION 1 PARTS

## General Assembly



## General Assembly Parts List

### SECTION 1 PARTS

| ITEM | PART # | DESCRIPTION              | QTY |
|------|--------|--------------------------|-----|
| 1    | 075630 | Assembly, Engine HDX615  | 1   |
| 2    | 075661 | Assembly, Main Frame     | 1   |
| 3    | 075690 | Assembly, Seat Frame     | 1   |
| -    | 069570 | Harness, Light           |     |
| -    | 076114 | Kit, Decal HDX615        | 1   |
| -    | 076213 | Harness, Wiring HDX615   | 1   |
| -    | 077722 | Kit, Hydraulic Component | 1   |
| -    | 077723 | Kit, Hydraulic Hoses     | 1   |
| -    | 077724 | Kit, Hydraulic Fitting   | 1   |

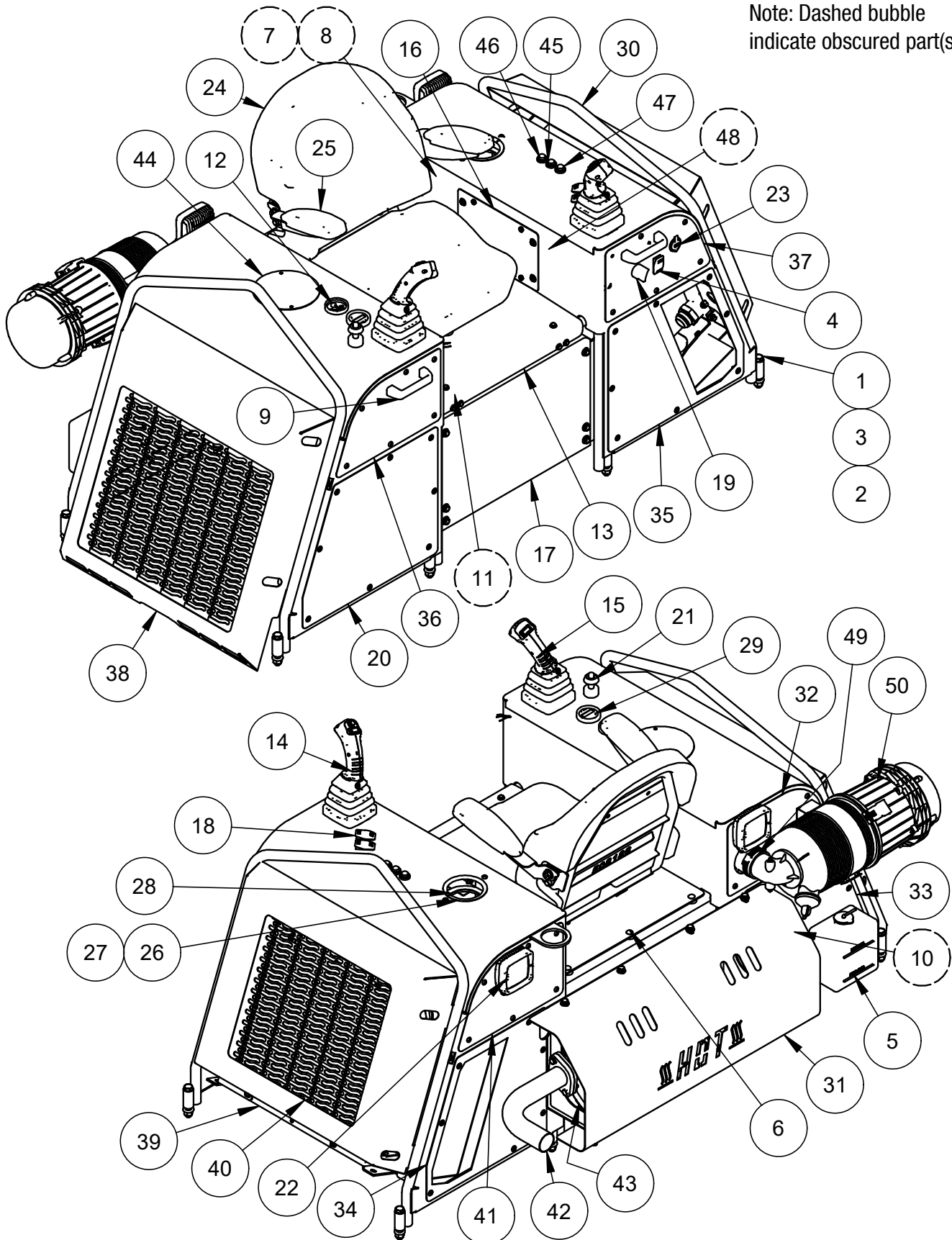
#### NOTICE

Electrical schematic may be available to view on the AEC website or contact AEC Customer Service

# SECTION 1 PARTS

## Seat Frame Assembly (075690)

Note: Dashed bubble indicate obscured part(s)



# Seat Frame Assembly (075690) Parts List

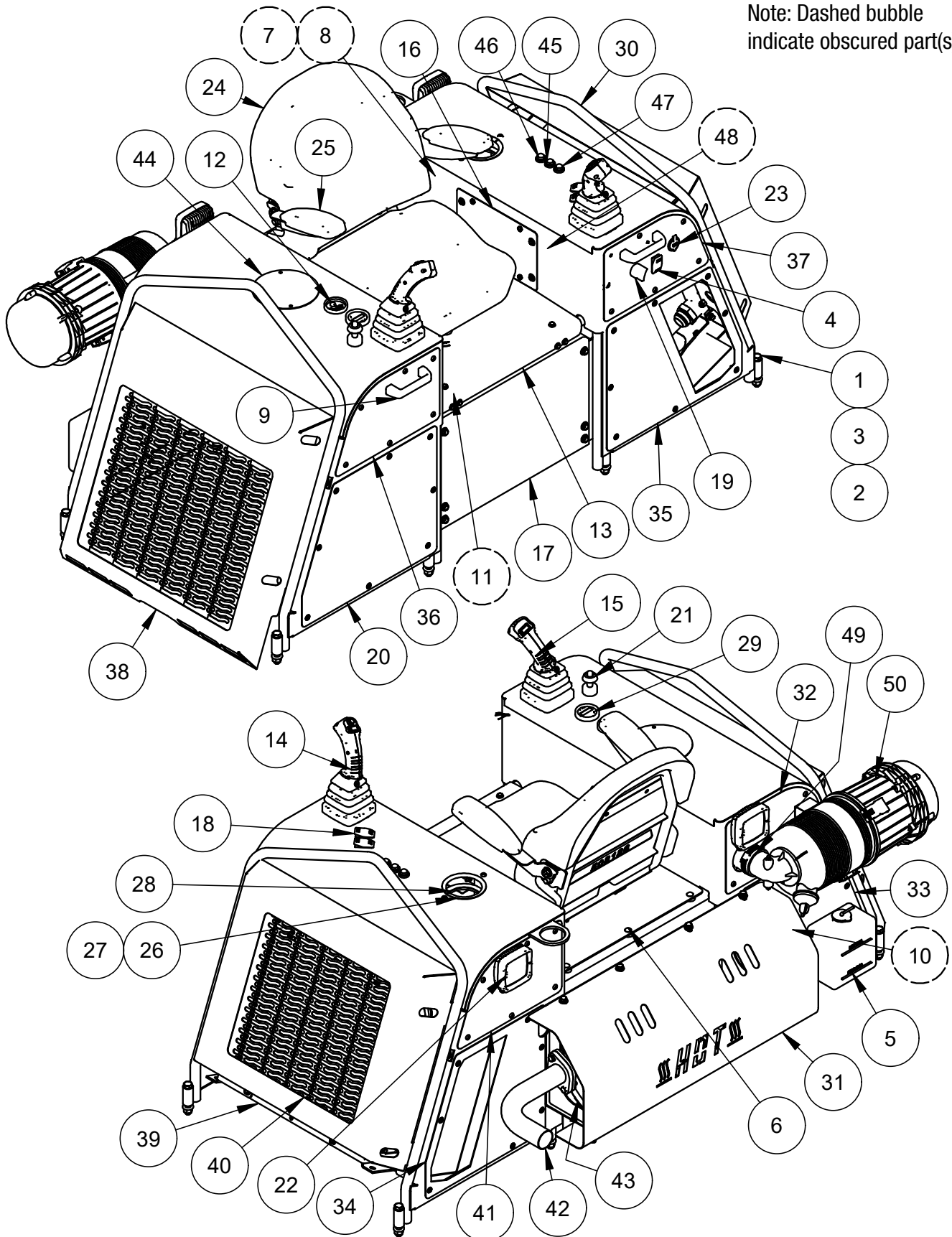
## SECTION 1 PARTS

| ITEM | PART NO. | DESCRIPTION                                    | QTY |
|------|----------|------------------------------------------------|-----|
| 1    | 010076   | Fastener, HHCS 1/2"-13 X 3-1/4"                | 8   |
| 2    | 011238   | Fastener, Hex Nut NYLOK 1/2"-13                | 8   |
| 3    | 011490   | Fastener, Flat Washer 1/2"                     | 8   |
| 4    | 032125   | Rocker switch, Lights                          | 1   |
| 5    | 047314   | Reservoir, coolant overflow                    | 1   |
| 6    | 047665   | Rubber bumper                                  | 3   |
| 7    | 047886   | Breather filler cap F/ Vent tank               | 1   |
| 8    | 048595   | Vent tank                                      | 1   |
| 9    | 048678   | Handle, nylon                                  | 2   |
| 10   | 048681   | Rubber grommet                                 | 1   |
| 11   | 049550   | Connector, Seat lid pivot                      | 2   |
| 12   | 054903   | Fuel gauge                                     | 1   |
| 13   | 056224   | Seat lid                                       | 1   |
| 14   | 064510   | LH Joystick                                    | 1   |
| 15   | 064511   | RH Joystick                                    | 1   |
| 16   | 065134   | Fuse box cover plate                           | 1   |
| 17   | 065489   | Cover, front center                            | 1   |
| 18   | 067961   | Rocker Switch (Throttle & Fuel)                | 2   |
| 19   | 068166   | Key Switch                                     | 1   |
| 20   | 068367   | Cover, front lower RH                          | 1   |
| 21   | 069221   | Vernier control cable, F/ cruise control       | 1   |
| 22   | 069835   | Light, LED 1200 Lumens                         | 2   |
| 23   | 069850   | USB receptacle                                 | 1   |
| 24   | 069874   | Seat                                           | 1   |
| 25   | 069875   | Arm rest (set)                                 | 1   |
| 26   | 071123   | Top rubber trim, 12.5" F/ cup holder           | 1   |
| 27   | 071124   | Middle rubber trim, 10.5" F/ cup holder        | 1   |
| 28   | 074251   | Cup holder                                     | 1   |
| 29   | 074704   | Display, PV25                                  | 1   |
| 30   | 075684   | Weldment, seat frame                           | 1   |
| 31   | 075692   | Heat shield F/ exhaust                         | 1   |
| 32   | 075693   | Cover, rear top RH                             | 1   |
| 33   | 075694   | Cover, rear lower RH                           | 1   |
| 34   | 075695   | Cover, rear lower LH                           | 1   |
| 35   | 075696   | Cover, front lower LH                          | 1   |
| 36   | 075697   | Cover, front top RH                            | 1   |
| 37   | 075698   | Cover, front top LH                            | 1   |
| 38   | 075699   | RH guard, Engine                               | 1   |
| 39   | 075702   | Sub-Assembly, Hyd. Oil cooler & air intake box | 1   |

# SECTION 1 PARTS

## Seat Frame Assembly (075690) Continued

Note: Dashed bubble indicate obscured part(s)



## Seat Frame Assembly (075690) Parts List Continued

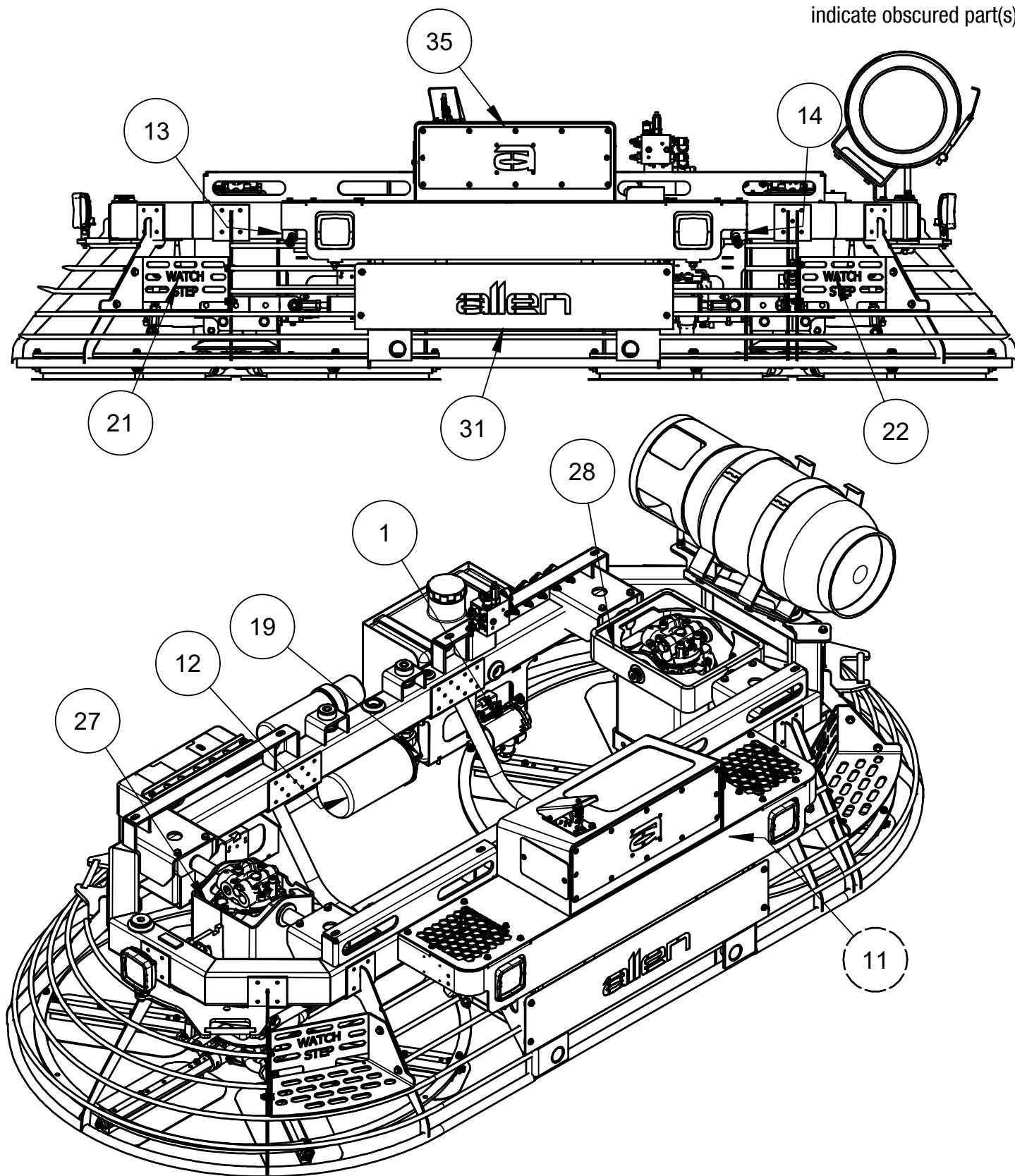
### SECTION 1 PARTS

| ITEM | PART NO. | DESCRIPTION                  | QTY |
|------|----------|------------------------------|-----|
| 40   | 075741   | LH guard, Cooler side        | 1   |
| 41   | 075744   | Cover, rear top LH           | 1   |
| 42   | 075745   | Tail pipe F/ exhaust         | 1   |
| 43   | 075767   | Exhaust Muffler              | 1   |
| 44   | 075072   | Cover plate F/ radiator fill | 1   |
| 45   | 076950   | Light, LED green             | 1   |
| 46   | 076951   | Light, LED amber             | 1   |
| 47   | 076952   | Light, LED red               | 1   |
| 48   | 077525   | Buzzer                       | 1   |
| 49   | 078197   | Hose connector, straight     | 1   |
| 50   | 078209   | Assembly, air cleaner        | 1   |

## SECTION 1 PARTS

### Assembly, Main Frame (075661)

Note: Dashed bubble indicate obscured part(s)

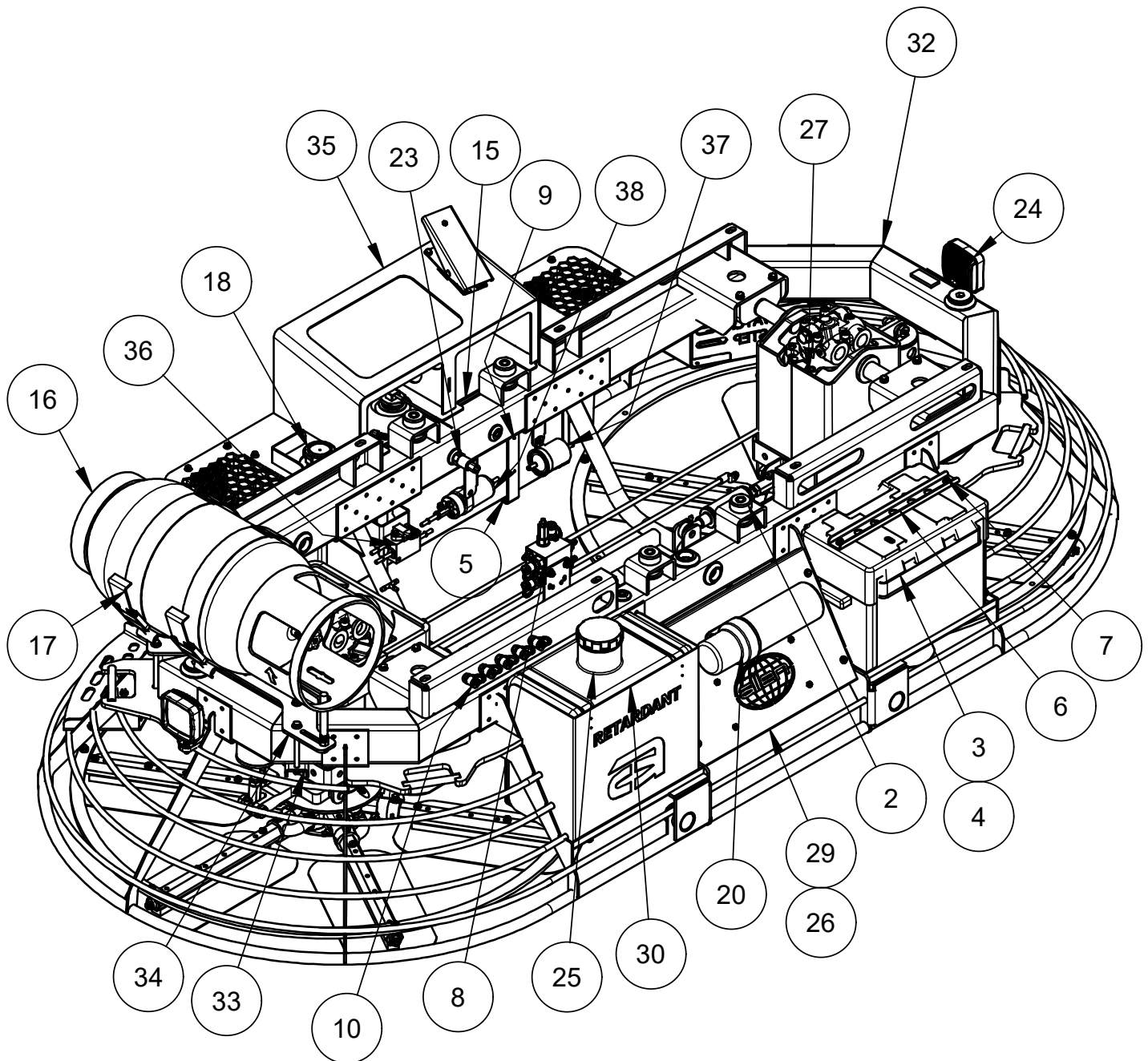


**Assembly, Main Frame Parts List (075661)****SECTION 1  
PARTS**

| Item | Part No. | Description                          | Qty |
|------|----------|--------------------------------------|-----|
| 1    | 033735   | Pump for spray system                | 1   |
| 2    | 043364   | Isolator, motor mount                | 4   |
| 3    | 046696   | Battery box                          | 1   |
| 4    | 047604   | Battery 700CCA 12V                   | 1   |
| 5    | 048562   | Cushion for bottom of fuel tank      | 2   |
| 6    | 048563   | Channel, battery hold down           | 1   |
| 7    | 048589   | Rod, 1/4"-20 for battery hold down   | 2   |
| 8    | 048657   | Manifold, High pressure              | 1   |
| 9    | 048676   | Plug rubber for fuel tank strap      | 8   |
| 10   | 048730   | Fitting, test point                  | 5   |
| 11   | 049088   | Valve, PO Check                      | 1   |
| 12   | 049801   | Filter, spin on                      | 1   |
| 13   | 049981   | RH spray bracket                     | 1   |
| 14   | 049982   | LH spray bracket                     | 1   |
| 15   | 064501   | Cushion, top of fuel tank            | 1   |
| 16   | 064878   | Propane tank                         | 1   |
| 17   | 064879   | Mount bracket F/ Propane tank        | 2   |
| 18   | 065605   | Assembly, Fuel tank                  | 1   |
| 19   | 066149   | Filter suction head                  | 1   |
| 20   | 066255   | Manual tube                          | 1   |
| 21   | 068370   | Step, RH                             | 1   |
| 22   | 068375   | Step, LH                             | 1   |
| 23   | 068622   | Temperature switch F/ cold start up  | 1   |
| 24   | 069835   | Light LED 1200 Lumens                | 4   |
| 25   | 071536   | Tank, 7 GAL Retardant                | 1   |
| 26   | 072856   | Plate, backer for rear cover         | 1   |
| 27   | 074146   | Assembly, RH rotor                   | 1   |
| 28   | 074147   | Assembly, LH rotor                   | 1   |
| 29   | 075259   | Cover plate, rear center             | 1   |
| 30   | 075422   | Tank Guard F/ 7GAL Retardant         | 1   |
| 31   | 075659   | Cover plate, bottom front center     | 1   |
| 32   | 075662   | Main frame                           | 1   |
| 33   | 075683   | Mount bracket bottom F/ Propane tank | 1   |
| 34   | 075737   | Mount plate F/ Propane tank          | 1   |
| 35   | 075753   | Assembly, front deck                 | 1   |
| 36   | 075758   | Fuel manifold                        | 1   |
| 37   | 075759   | Fuel filter                          | 1   |
| 38   | 075761   | Fuel Pump                            | 1   |

## SECTION 1 PARTS

### Assembly, Main Frame Continued (075661)

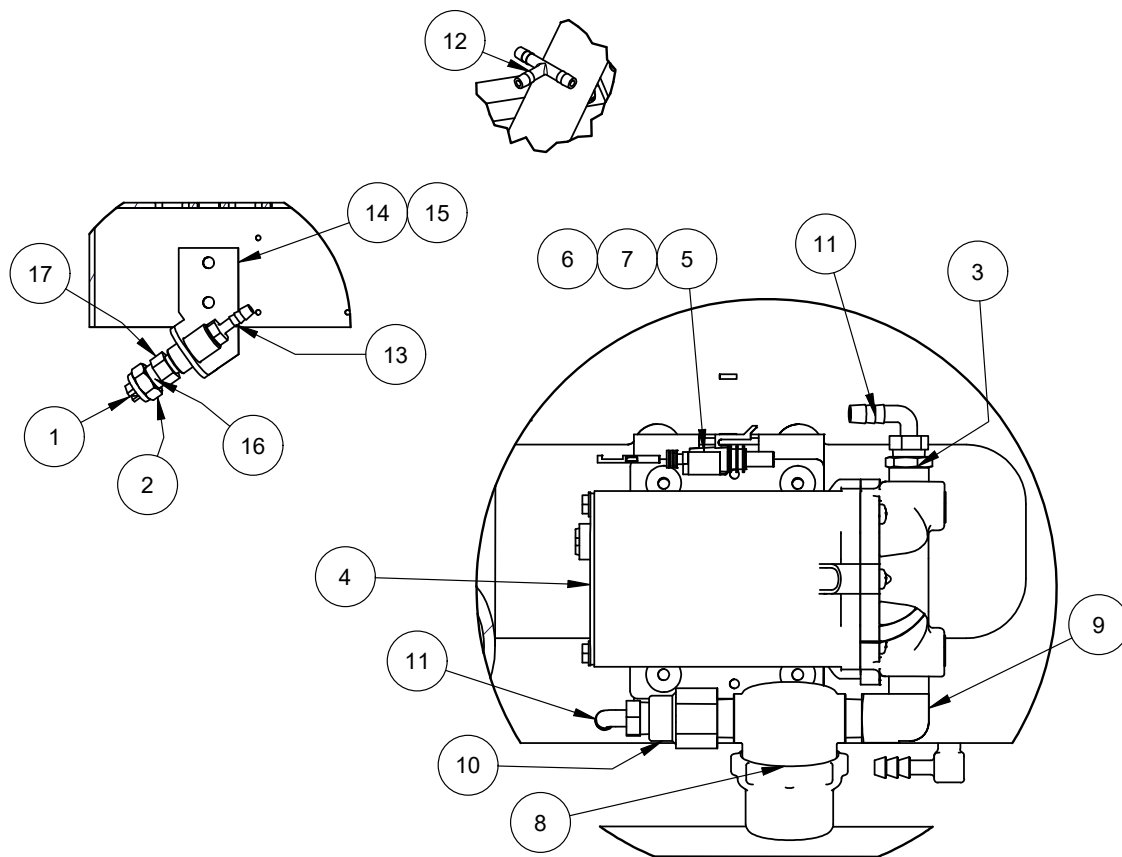


**Assembly, Main Frame Parts List (075661)****SECTION 1  
PARTS**

| Item | Part No. | Description                          | Qty |
|------|----------|--------------------------------------|-----|
| 1    | 033735   | Pump for spray system                | 1   |
| 2    | 043364   | Isolator, motor mount                | 4   |
| 3    | 046696   | Battery box                          | 1   |
| 4    | 047604   | Battery 700CCA 12V                   | 1   |
| 5    | 048562   | Cushion for bottom of fuel tank      | 2   |
| 6    | 048563   | Channel, battery hold down           | 1   |
| 7    | 048589   | Rod, 1/4"-20 for battery hold down   | 2   |
| 8    | 048657   | Manifold, High pressure              | 1   |
| 9    | 048676   | Plug rubber for fuel tank strap      | 8   |
| 10   | 048730   | Fitting, test point                  | 5   |
| 11   | 049088   | Valve, PO Check                      | 1   |
| 12   | 049801   | Filter, spin on                      | 1   |
| 13   | 049981   | RH spray bracket                     | 1   |
| 14   | 049982   | LH spray bracket                     | 1   |
| 15   | 064501   | Cushion, top of fuel tank            | 1   |
| 16   | 064878   | Propane tank                         | 1   |
| 17   | 064879   | Mount bracket F/ Propane tank        | 2   |
| 18   | 065605   | Assembly, Fuel tank                  | 1   |
| 19   | 066149   | Filter suction head                  | 1   |
| 20   | 066255   | Manual tube                          | 1   |
| 21   | 068370   | Step, RH                             | 1   |
| 22   | 068375   | Step, LH                             | 1   |
| 23   | 068622   | Temperature switch F/ cold start up  | 1   |
| 24   | 069835   | Light LED 1200 Lumens                | 4   |
| 25   | 071536   | Tank, 7 GAL Retardant                | 1   |
| 26   | 072856   | Plate, backer for rear cover         | 1   |
| 27   | 074146   | Assembly, RH rotor                   | 1   |
| 28   | 074147   | Assembly, LH rotor                   | 1   |
| 29   | 075259   | Cover plate, rear center             | 1   |
| 30   | 075422   | Tank Guard F/ 7GAL Retardant         | 1   |
| 31   | 075659   | Cover plate, bottom front center     | 1   |
| 32   | 075662   | Main frame                           | 1   |
| 33   | 075683   | Mount bracket bottom F/ Propane tank | 1   |
| 34   | 075737   | Mount plate F/ Propane tank          | 1   |
| 35   | 075753   | Assembly, front deck                 | 1   |
| 36   | 075758   | Fuel manifold                        | 1   |
| 37   | 075759   | Fuel filter                          | 1   |
| 38   | 075761   | Fuel Pump                            | 1   |

### Spray System Illustration

Note: Images are for reference only, parts may be located/set differently on the machine



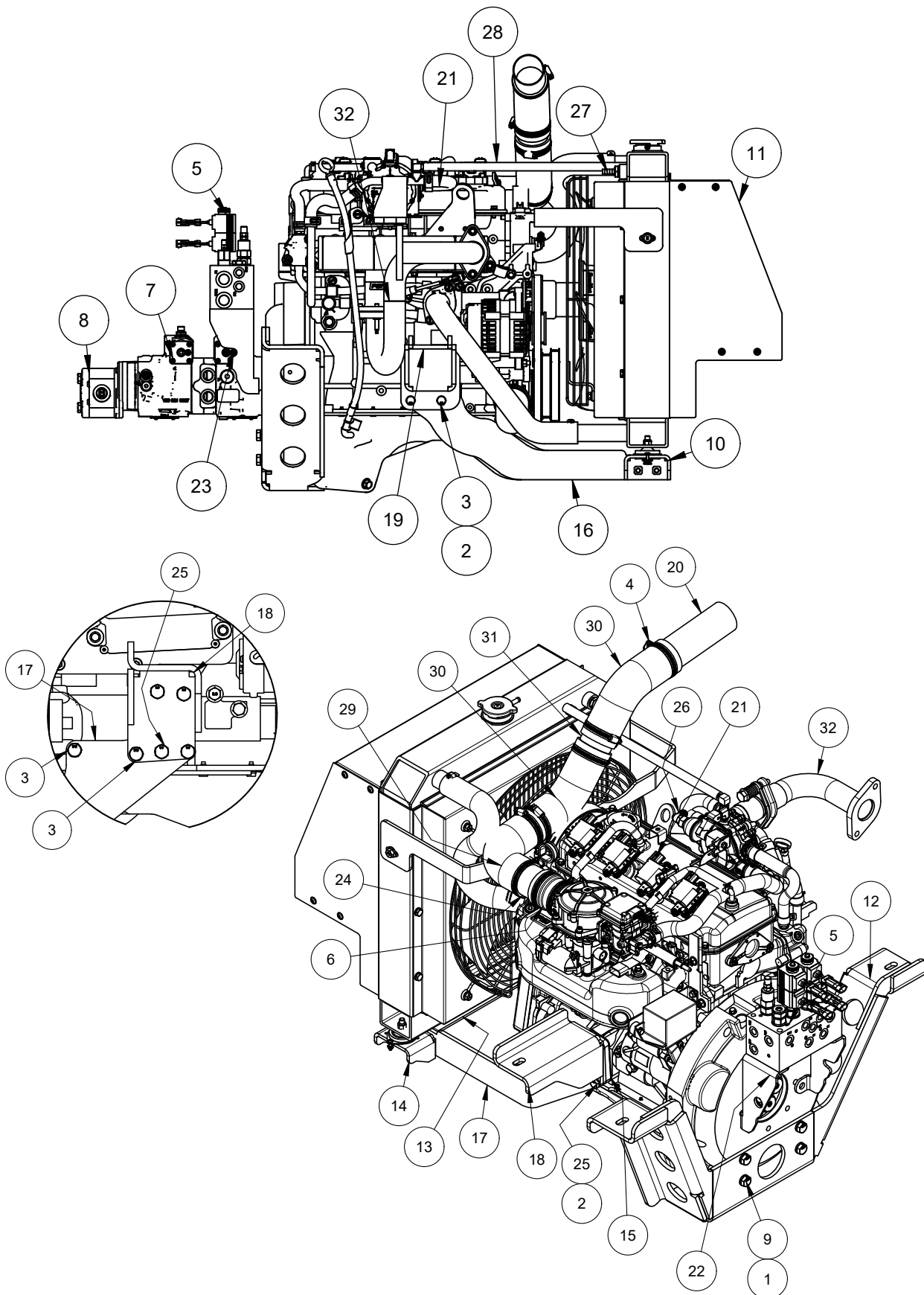
## Spray System Parts List

## SECTION 1 PARTS

| ITEM | PART # | DESCRIPTION                                 | QTY |
|------|--------|---------------------------------------------|-----|
| 1    | 012702 | Spray Tip, 8001 Fine                        | 2   |
| 2    | 012705 | Brass Nozzle Nut                            | 2   |
| 3    | 013557 | Reducing Nipple, 3/8" x 1/4"                | 1   |
| 4    | 033735 | Pump                                        | 1   |
| 5    | 038641 | Housing, Female Term 2 Contact              | 1   |
| 6    | 038644 | Terminal, female 16-14 AWG                  | 2   |
| 7    | 038648 | Cavity Seal, Grey for 038641                | 2   |
| 8    | 040209 | Filter, Spray System                        | 1   |
| 9    | 040387 | Street Elbow, Brass 3/8" 90°                | 1   |
| 10   | 040388 | Fitting, 3/8" x 1/4" Brass FM to FM Reducer | 1   |
| 11   | 047933 | Elbow, 1/4" Pushlok x 1/4" NPT Plastic      | 2   |
| 12   | 048652 | Tee, Plastic 1/4"x 1/4" x 1/4"              | 1   |
| 13   | 048653 | Hose Barb, Plastic 1/4" x 1/4" NPT          | 2   |
| 14   | 049981 | Weldment, RH Spray Bracket                  |     |
| 15   | 049982 | Weldment, LH Spray Bracket                  | 1   |
| 16   | 065244 | Screen, 50 Mesh Blue with Check Valve       | 2   |
| 17   | 071531 | Nozzle Body, Male Straight Tee Jet Brass    | 2   |
| -    | 048246 | HOSE, 3/8" WATER LINE                       | -   |

# SECTION 1 PARTS

## Engine Assembly (075630)



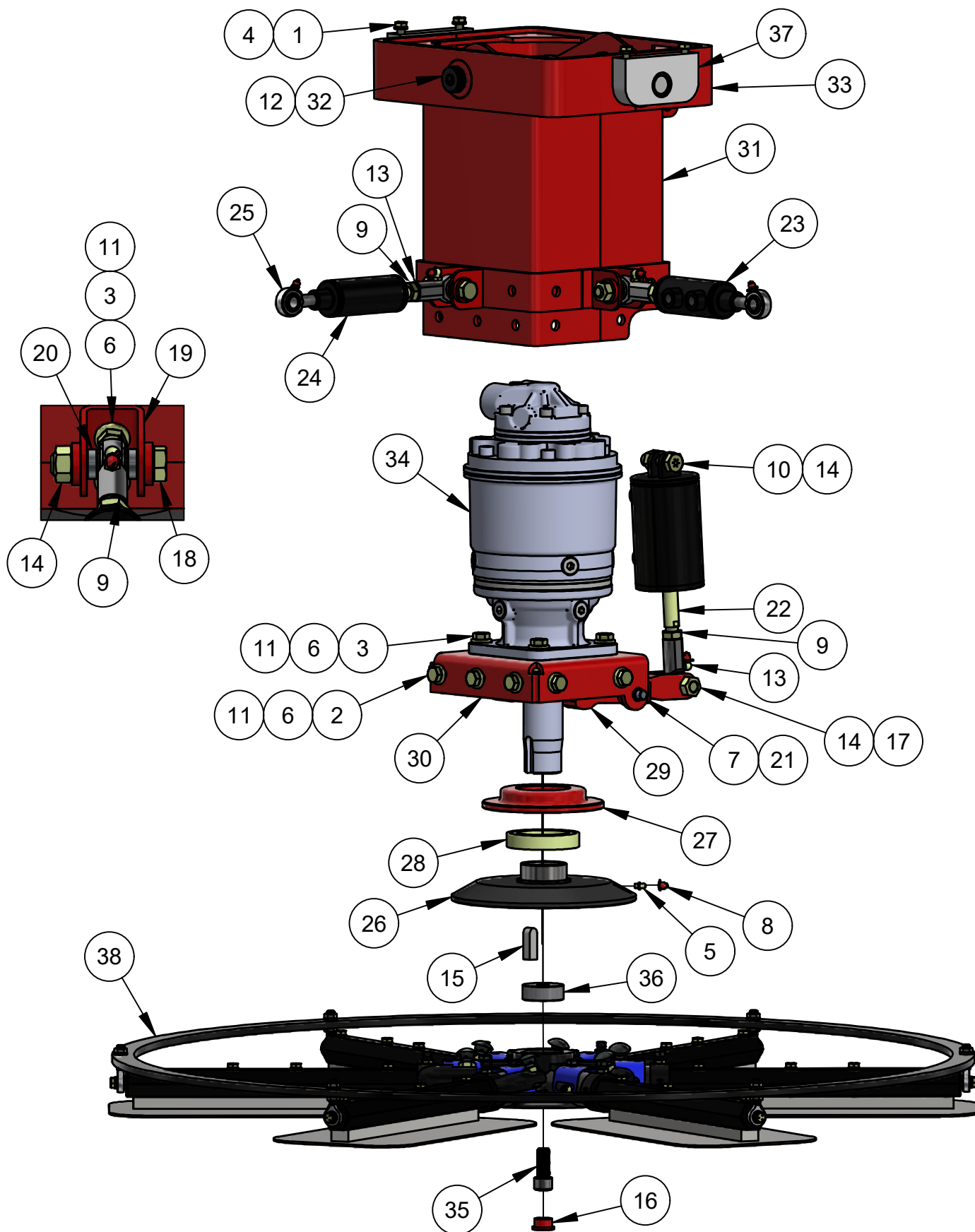
# Engine Assembly (075630) Parts List

## SECTION 1 PARTS

| ITEM | PART NO. | DESCRIPTION                        | QTY |
|------|----------|------------------------------------|-----|
| 1    | 010093   | Fastener, Lock washer 1/2"         | 4   |
| 2    | 021072   | Fastener, Lock washer 10mm         | 10  |
| 3    | 037778   | Fastener, HHCS M10 X 1.25 X 30mm   | 7   |
| 4    | 040329   | Hose Clamp, 3"                     | 8   |
| 5    | 048656   | Steering/Pitch manifold            | 1   |
| 6    | 060979   | Rubber reducer 2-1/2" to 2-1/4"    | 1   |
| 7    | 068610   | Tandem pump                        | 1   |
| 8    | 068611   | Auxiliary pump                     | 1   |
| 9    | 070414   | Fastener, HHCS M12 X 1.75 X 30mm   | 4   |
| 10   | 075623   | LH Radiator support                | 1   |
| 11   | 075626   | Assembly, Radiator shroud          | 1   |
| 12   | 075631   | Rear engine mount                  | 1   |
| 13   | 075635   | Bracket, Center radiator support   | 1   |
| 14   | 075636   | RH Radiator support                | 1   |
| 15   | 075653   | Spacer 1/16" LH Radiator mount     | 1   |
| 16   | 075657   | Plate, RH Radiator Mount           | 1   |
| 17   | 075858   | Bracket, LH Radiator mount         | 1   |
| 18   | 075707   | LH Engine mount, front             | 1   |
| 19   | 075710   | RH Engine mount, front             | 1   |
| 20   | 076048   | Tube, intake to breather           | 1   |
| 21   | 076090   | Engine, PSI Duel Fuel 2.4L         | 1   |
| 22   | 076093   | Bracket, Rear Mount for manifold   | 1   |
| 23   | 076094   | Bracket, Front Mount for manifold  | 1   |
| 24   | 076273   | Tube Splice, intake 4" long        | 1   |
| 25   | 077794   | Fastener, HHCS M10 x 1.25 X 45mm   | 4   |
| 26   | 077814   | Fitting, 90° elbow                 | 1   |
| 27   | 077829   | Fitting, Hose barb 3/8" X 1/4" NPT | 1   |
| 28   | 077830   | Hose, 3/8" ID X 16-1/2" long       | 1   |
| 29   | 078204   | Hose, 90° Elbow 2-1/2" ID          | 1   |
| 30   | 078205   | Hose, 45° Elbow 2-1/2" ID          | 1   |
| 31   | 078224   | Tube Splice for intake             | 1   |
| 32   | 078470   | Exhaust muffler pipe               | 1   |

# SECTION 1 PARTS

## Rotor Assembly - Left Hand (074147)



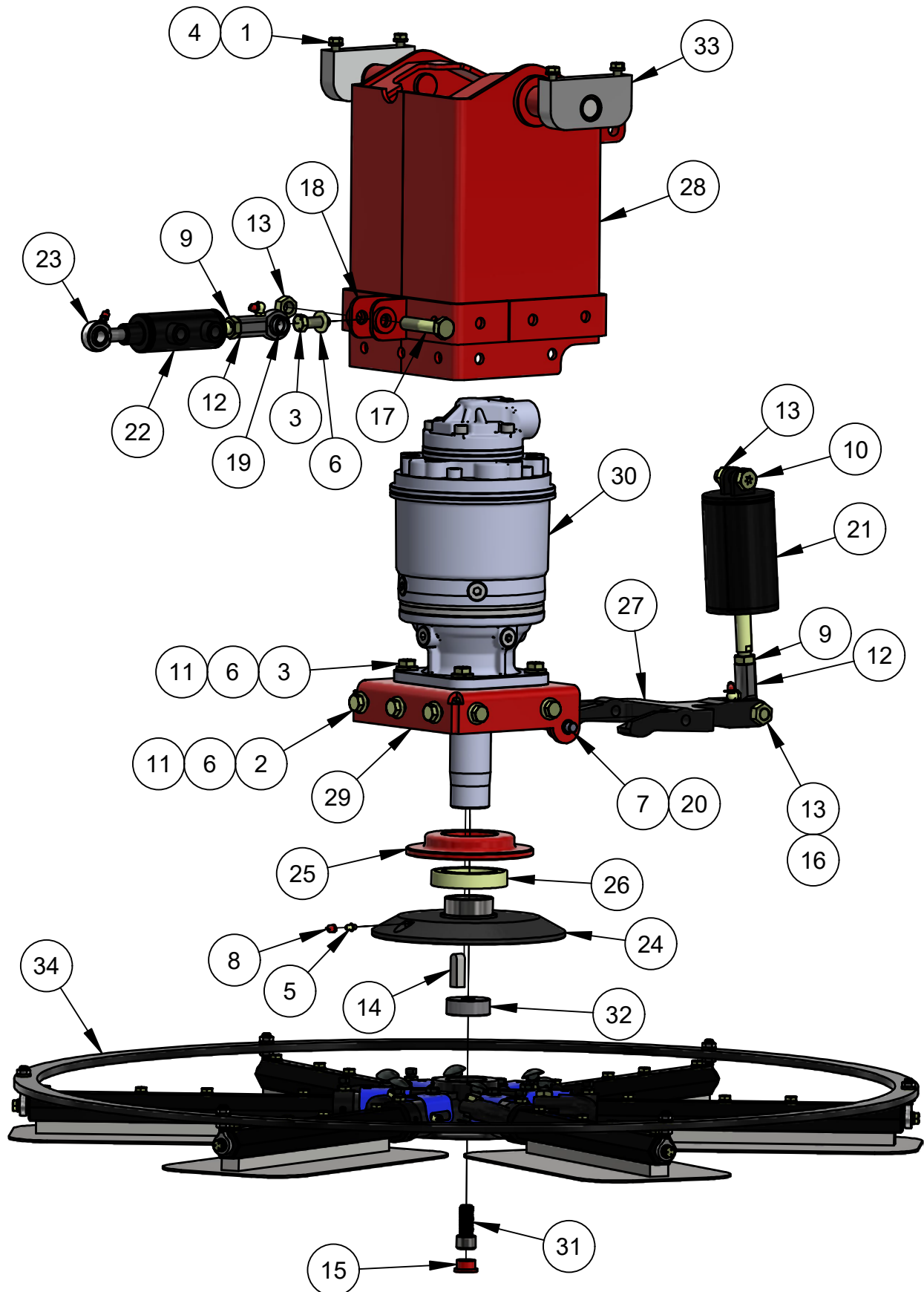
# Rotor Assembly - Left Hand (074147) Parts List

## SECTION 1 PARTS

| ITEM | PART NO. | DESCRIPTION                                                                                  | QTY |
|------|----------|----------------------------------------------------------------------------------------------|-----|
| 1    | 010036   | Fastener, Bolt, HHCS, 3/8"-16 x 1", Grade 8                                                  | 4   |
| 2    | 010068   | Fastener, Bolt, HHCS, 1/2"-13 x 1-1/4", Grade 8                                              | 7   |
| 3    | 010069   | Fastener, Bolt, HHCS, 1/2"-13 x 1-1/2" Grade 8                                               | 6   |
| 4    | 010091   | Fastener, Washer, Lock, 3/8", Grade 8                                                        | 4   |
| 5    | 010513   | Fitting, Grease, Straight, 1/4"-28                                                           | 1   |
| 6    | 011490   | Fastener, Washer, Flat, 1/2", Grade 8                                                        | 13  |
| 7    | 015677   | Fastener, Retaining Ring, Ø7/16, E-Style                                                     | 2   |
| 8    | 015692   | Cap, Ø1/4, Red, Plastic                                                                      | 3   |
| 9    | 020688   | Fastener, Nut, Hex, 5/8"-18, Grade 8                                                         | 3   |
| 10   | 027969   | Fastener, Bolt, HHCS, 5/8"-18 x 2", Grade 8                                                  | 1   |
| 11   | 040208   | Fastener, Nut, Hex, 1/2"-13, Grade 8                                                         | 13  |
| 12   | 040265   | Bushing, 3/4" Lg X Ø1.254" OD, Flange                                                        | 2   |
| 13   | 043125   | End, Rod, 5/8", Female                                                                       | 3   |
| 14   | 043269   | Fastener, Nut, Hex, 5/8"-18, Grade 8                                                         | 4   |
| 15   | 046231   | Key, Rotor Shaft                                                                             | 1   |
| 16   | 046646   | Plug, 7/8 Thread Protect Cap                                                                 | 1   |
| 17   | 047354   | Fastener, Bolt, HHCS, 5/8"-18 x 2-1/4", Grade 8                                              | 1   |
| 18   | 048339   | Fastener, Bolt, HHCS, 5/8"-18 x 3", Grade 8                                                  | 2   |
| 19   | 048624   | Channel, Cylinder Rod End Connector                                                          | 2   |
| 20   | 048627   | Spacer, Steering Connection                                                                  | 4   |
| 21   | 048628   | Pin, Yoke Arm                                                                                | 1   |
| 22   | 048659   | Cylinder, Pitch, 3" Bore x 1-1/2" Stroke                                                     | 1   |
| 23   | 048660   | Cylinder, Steering, 1-1/2" x 5/8"                                                            | 1   |
| 24   | 048661   | Cylinder, Steering, 1-1/2" x 1-1/4"                                                          | 1   |
| 25   | 048747   | Rod, End, 1/2", Male                                                                         | 2   |
| 26   | 049537   | Plate, Pressure                                                                              | 1   |
| 27   | 049599   | Cap, Bearing Cap                                                                             | 1   |
| 28   | 049697   | Bearing, Spider Assembly                                                                     | 1   |
| 29   | 049698   | Yoke Arm, Pitch                                                                              | 1   |
| 30   | 060672   | Mount, for Hydraulic Motor                                                                   | 1   |
| 31   | 060675   | Housing, Hydraulic Motor Mount, Left Hand                                                    | 1   |
| 32   | 060679   | Fastener, Bolt, Shoulder, 1" x 1", Grade 8                                                   | 2   |
| 33   | 060680   | Crosshead, 4-Way                                                                             | 1   |
| 34   | 060728   | Motor, Hydraulic, Rotor, Right Hand Threads                                                  | 1   |
| 35   | 064252   | Fastener, Bolt, SHCS, 5/8"-11 x 1-1/2", Right Hand Thread, Grade 8                           | 1   |
| 36   | 064253   | Spacer, Washer, Retaining                                                                    | 1   |
| 37   | 064260   | Assembly, Bearing                                                                            | 2   |
| -    | 068157   | <b>REPLACEMENT</b> - Bearing, Flanged, Bronze, 1" ID x 1" Long (for 064260 Bearing Assembly) | -   |
| 38   | 073512   | Assembly, Lower Rotor, Left Hand                                                             | 1   |

# SECTION 1 PARTS

## Rotor Assembly - Right Hand (074146)



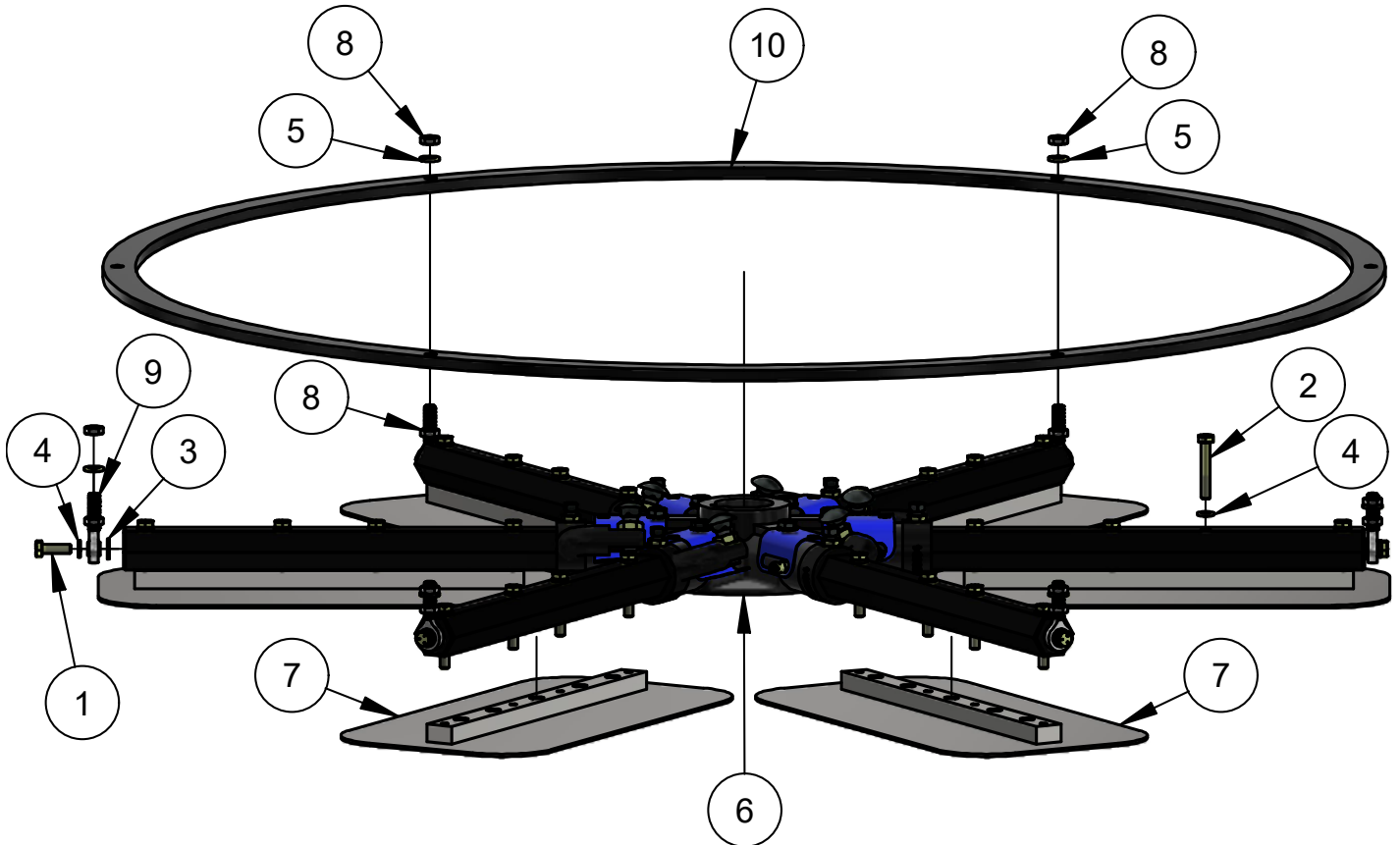
# Rotor Assembly - Right Hand (074146) Parts List

## SECTION 1 PARTS

| ITEM | PART NO. | DESCRIPTION                                                                                  | QTY |
|------|----------|----------------------------------------------------------------------------------------------|-----|
| 1    | 010036   | Fastener, Bolt, HHCS, 3/8"-16 x 1", Grade 8                                                  | 4   |
| 2    | 010068   | Fastener, Bolt, HHCS, 1/2"-13 x 1-1/4", Grade 8                                              | 7   |
| 3    | 010069   | Fastener, Bolt, HHCS, 1/2"-13 x 1-1/2", Grade 8                                              | 5   |
| 4    | 010091   | Fastener, Washer, Lock, 3/8", Grade 8                                                        | 4   |
| 5    | 010513   | Fitting, Grease, 1/4"-28, Straight                                                           | 1   |
| 6    | 011490   | Fastener, Washer, Flat, 1/2", Grade 8                                                        | 12  |
| 7    | 015677   | Ring, Retaining, Ø7/16", E-Style                                                             | 2   |
| 8    | 015692   | Cap, Grease, Ø1/4", Red, Plastic                                                             | 2   |
| 9    | 020688   | Fastener, Nut, Hex, 5/8"-18, Grade 8                                                         | 2   |
| 10   | 027969   | Fastener, Bolt, HHCS, 5/8"-18 x 2", Grade 8                                                  | 1   |
| 11   | 040208   | Fastener, Nut, Stover Lock, 1/2"-13, Grade 8                                                 | 12  |
| 12   | 043125   | Rod, End, 5/8", Female                                                                       | 2   |
| 13   | 043269   | Fastener, Nut, Stover, 5/8"-18, Grade 8                                                      | 3   |
| 14   | 046231   | Key, Rotor Shaft                                                                             | 1   |
| 15   | 046646   | Cap, Plug, 7/8" Thread, Protection                                                           | 1   |
| 16   | 047354   | Fastener, Bolt, HHCS, 5/8"-18 x 2-1/4", Grade 8                                              | 1   |
| 17   | 048339   | Fastener, Bolt, HHCS, 5/8"-13 x 3", Grade 8                                                  | 1   |
| 18   | 048624   | Channel, Cylinder Rod, End Connector                                                         | 1   |
| 19   | 048627   | Spacer, Steering Connection                                                                  | 2   |
| 20   | 048628   | Pin, Yoke Arm                                                                                | 1   |
| 21   | 048659   | Cylinder, Pitch, HDX Series, 3" Bore, 1-1/2" Stroke                                          | 1   |
| 22   | 048661   | Cylinder, Steering, 1-1/2" x 1-1/4"                                                          | 1   |
| 23   | 048747   | Rod, End, 1/2", Male                                                                         | 1   |
| 24   | 049537   | Plate, Pressure                                                                              | 1   |
| 25   | 049599   | Cap, Bearing                                                                                 | 1   |
| 26   | 049697   | Bearing, Spider Assembly                                                                     | 1   |
| 27   | 049698   | Arm, Yoke, Pitch                                                                             | 1   |
| 28   | 060664   | Housing, Hydraulic Motor Mount, Right Hand                                                   | 1   |
| 29   | 060672   | Mount, Hydraulic Motor                                                                       | 1   |
| 30   | 060727   | Motor, Hydraulic, Rotor, Left Hand Threads                                                   | 1   |
| 31   | 064251   | Fastener, Bolt, SHCS, 5/8"-11 x 1-1/2", Left Hand Thread                                     | 1   |
| 32   | 064253   | Washer, Retaining                                                                            | 1   |
| 33   | 064260   | Assembly, Bearing                                                                            | 2   |
| -    | 068157   | <b>REPLACEMENT</b> - Bearing, Flanged, Bronze, 1" ID x 1" Long (for 064260 Bearing Assembly) | 2   |
| 34   | 073513   | Assembly, Lower Rotor, Right Hand                                                            | 1   |

## SECTION 1 PARTS

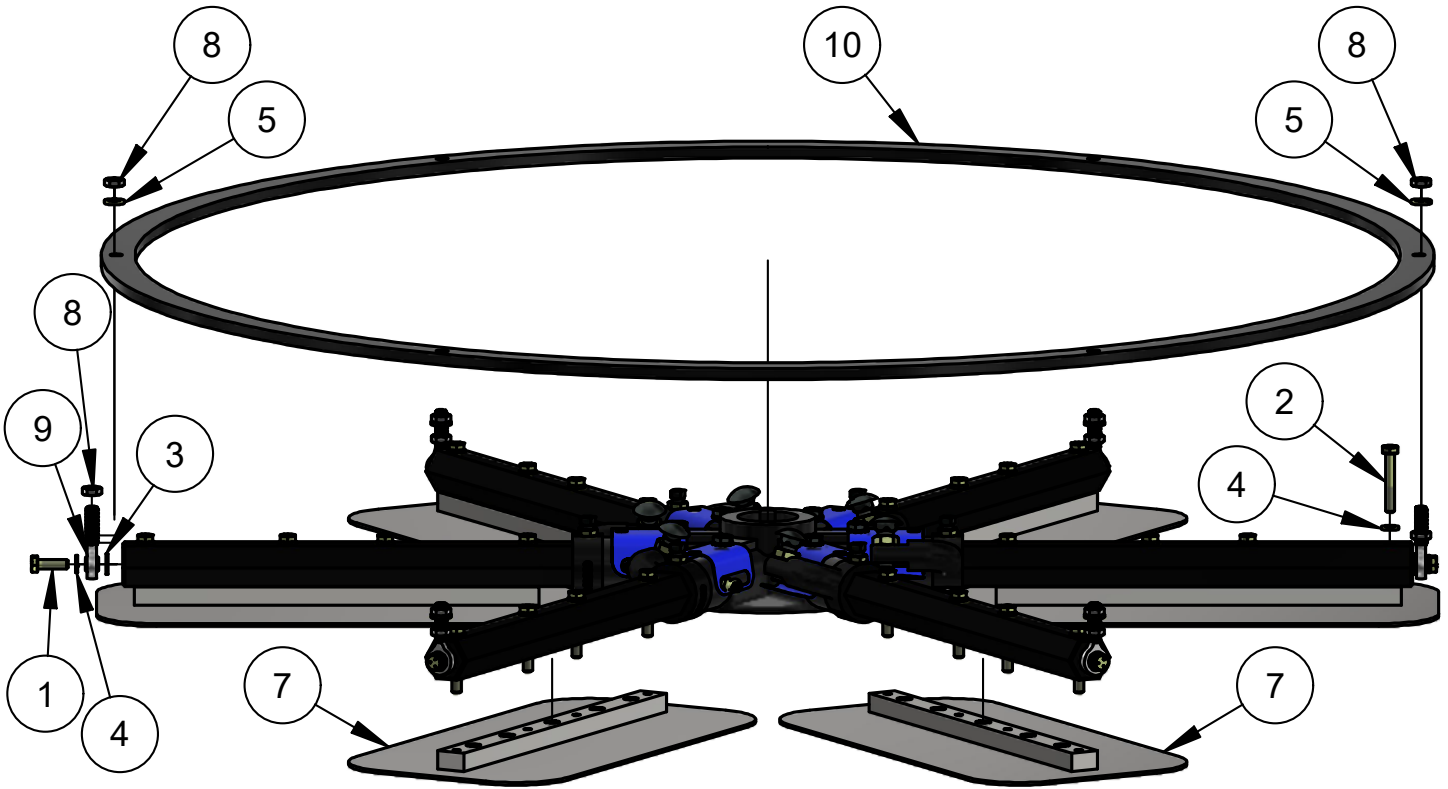
### Lower Rotor Assembly - Left Hand (073512)



| ITEM | PART # | DESCRIPTION                                          | QTY |
|------|--------|------------------------------------------------------|-----|
| 1    | 010020 | Fastener, Bolt, HHCS, 5/16"-18 x 1", Grade 8         | 6   |
| 2    | 010024 | Fastener, Bolt, HHCS, 5/16"-18 x 2", Grade 8         | 24  |
| 3    | 010082 | Fastener, Washer, Flat, 5/16", Grade 8               | 6   |
| 4    | 010090 | Fastener, Washer, Lock, 5/16", Grade 8               | 30  |
| 5    | 010091 | Fastener, Washer, Lock, 3/8", Grade 8                | 6   |
| 6    | 060538 | Assembly, Spider, Left Hand, 6-Blade                 | 1   |
| 7    | 070550 | Blade, Flat Finish, 16"                              | 6   |
| 8    | 069566 | Fastener, Nut, Hex, 3/8"-24, Thin                    | 12  |
| 9    | 069567 | Ball Joint, Rod End, Male, 3/8"-24 Shank, 5/16" I.D. | 6   |
| 10   | 073343 | Ring, Stabilizer, 6-Blade, 46" Rotor                 | 1   |

# Lower Rotor Assembly - Right Hand (073513)

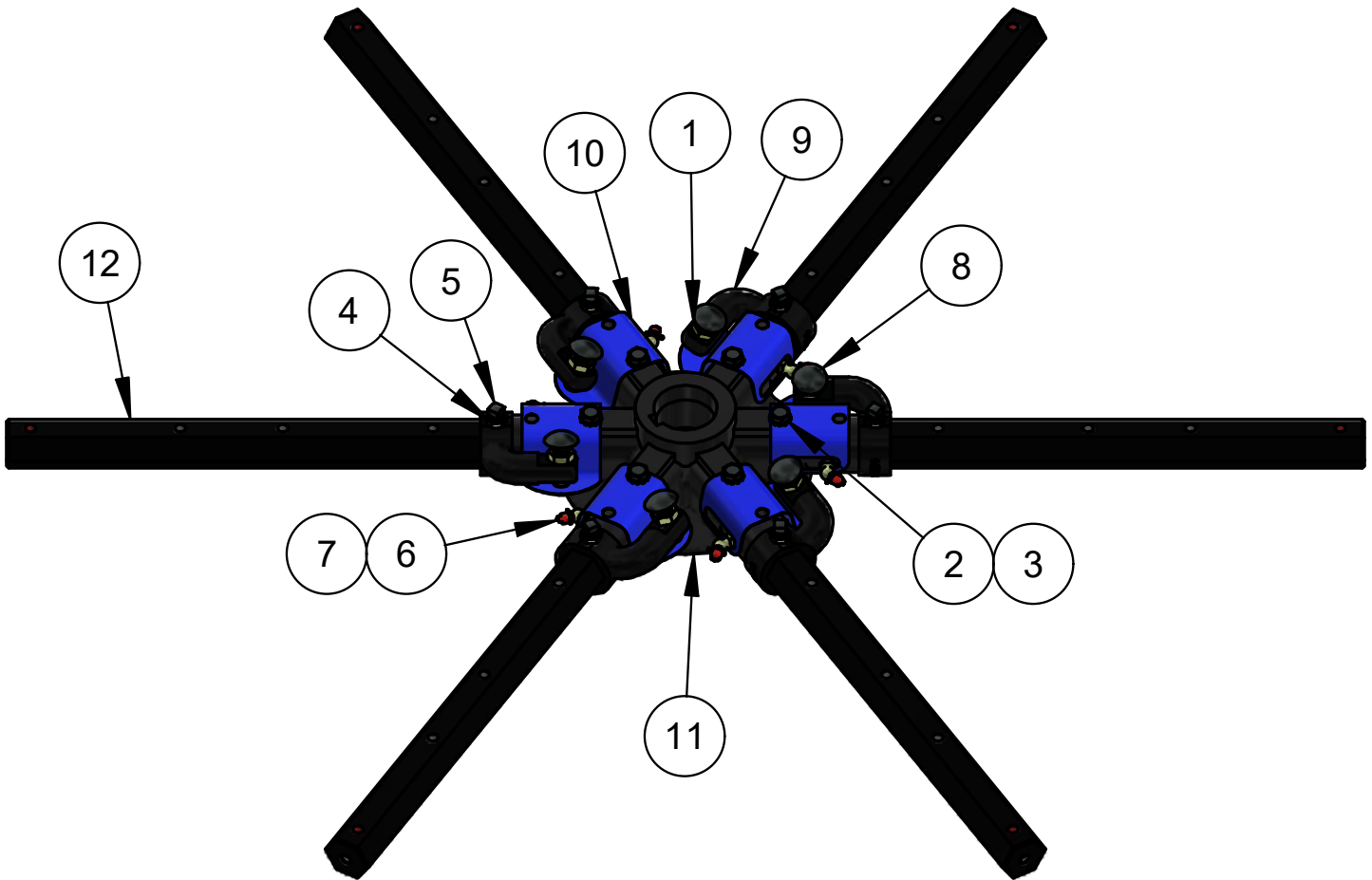
## SECTION 1 PARTS



| ITEM | PART # | DESCRIPTION                                          | QTY |
|------|--------|------------------------------------------------------|-----|
| 1    | 010020 | Fastener, Bolt, HHCS, 5/16"-18 x 1", Grade 8         | 6   |
| 2    | 010024 | Fastener, Bolt, HHCS, 5/16"-18 x 2", Grade 8         | 24  |
| 3    | 010082 | Fastener, Washer, Flat, 5/16", Grade 8               | 6   |
| 4    | 010090 | Fastener, Washer, Lock, 5/16", Grade 8               | 30  |
| 5    | 010091 | Fastener, Washer, Lock, 3/8", Grade 8                | 6   |
| 6    | 060541 | Assembly, Spider, Right Hand, 6-Blade                | 1   |
| 7    | 070550 | Blade, Flat Finish, 16"                              | 6   |
| 8    | 069566 | Fastener, Nut, Hex, 3/8"-24, Thin                    | 12  |
| 9    | 069567 | Ball Joint, Rod End, Male, 3/8"-24 Shank, 5/16" I.D. | 6   |
| 10   | 073343 | Ring, Stabilizer, 6-Blade, 46" Rotor                 | 1   |

## SECTION 1 PARTS

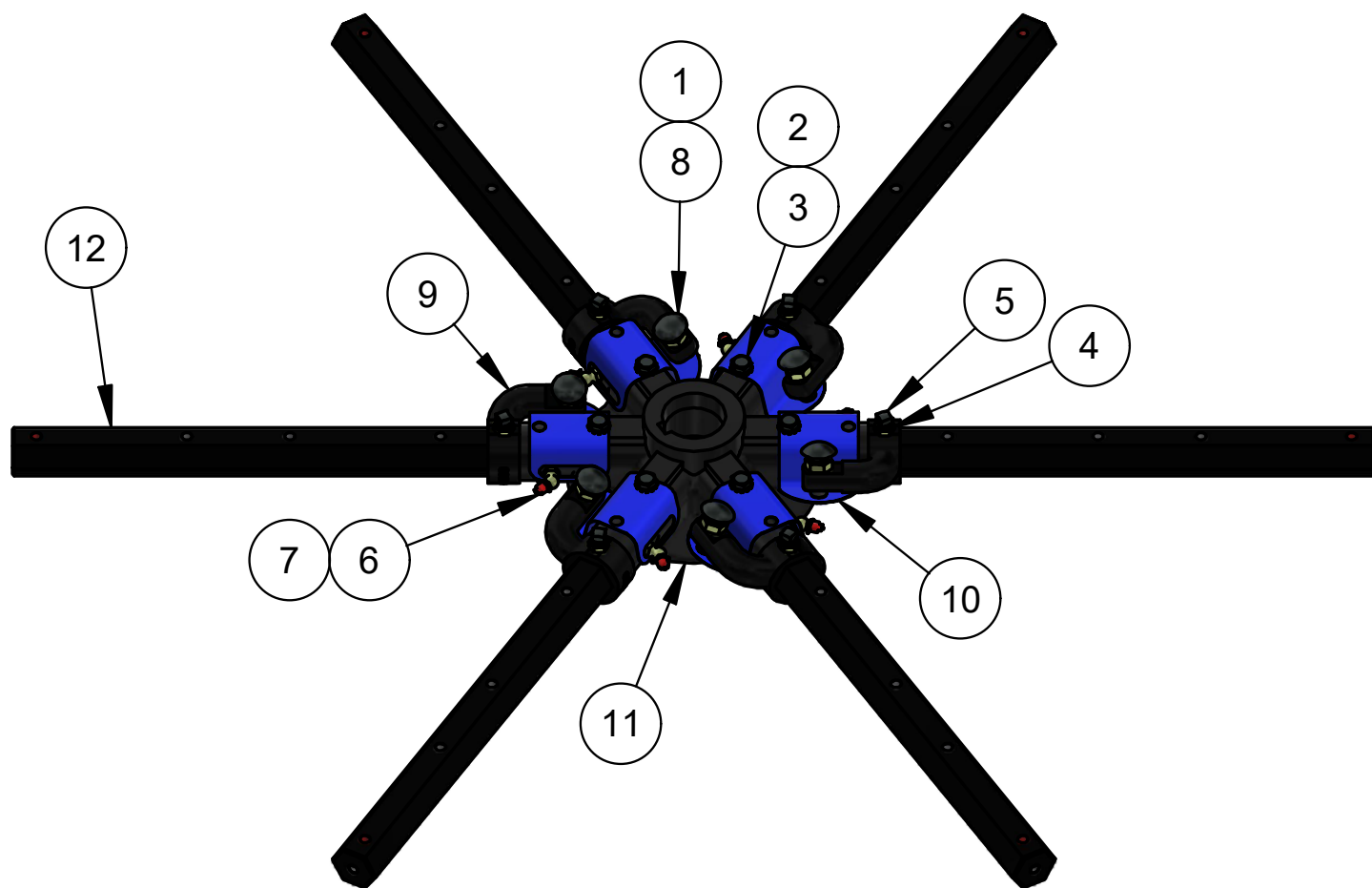
### Spider Assembly - Left Hand (073512)



| ITEM | PART # | DESCRIPTION                               | QTY |
|------|--------|-------------------------------------------|-----|
| 1    | 010050 | Fastener, Nut, Hex, 1/2"-13               | 6   |
| 2    | 015682 | Fastener, External Tooth, 3/8"            | 6   |
| 3    | 015683 | Fastener, Bolt, Hex Head, 3/8"-16 x 7/8"  | 6   |
| 4    | 015684 | Fastener, Nut, Hex, 3/8"-16               | 6   |
| 5    | 015686 | Fastener, Bolt, SQHSS, 3/8"-16 x 1"       | 6   |
| 6    | 015692 | Cap, Grease, 1/4", Plastic, Red           | 6   |
| 7    | 024755 | Fitting, Grease, 1/8"-27 NPT, 45°         | 6   |
| 8    | 028216 | Fastener, Bolt, 1/2"-13 x 1-1/2", Grade 8 | 6   |
| 9    | 033034 | Lever, Lift, Universal                    | 6   |
| 10   | 040792 | Clip, Spider Spring, 46-48                | 6   |
| 11   | 064198 | Boss, Spider, 6-Blade, Universal          | 1   |
| 12   | 060537 | Arm, Trowel, 4ft, for 6-Arm Spider        | 6   |

# Spider Assembly - Right Hand (073513)

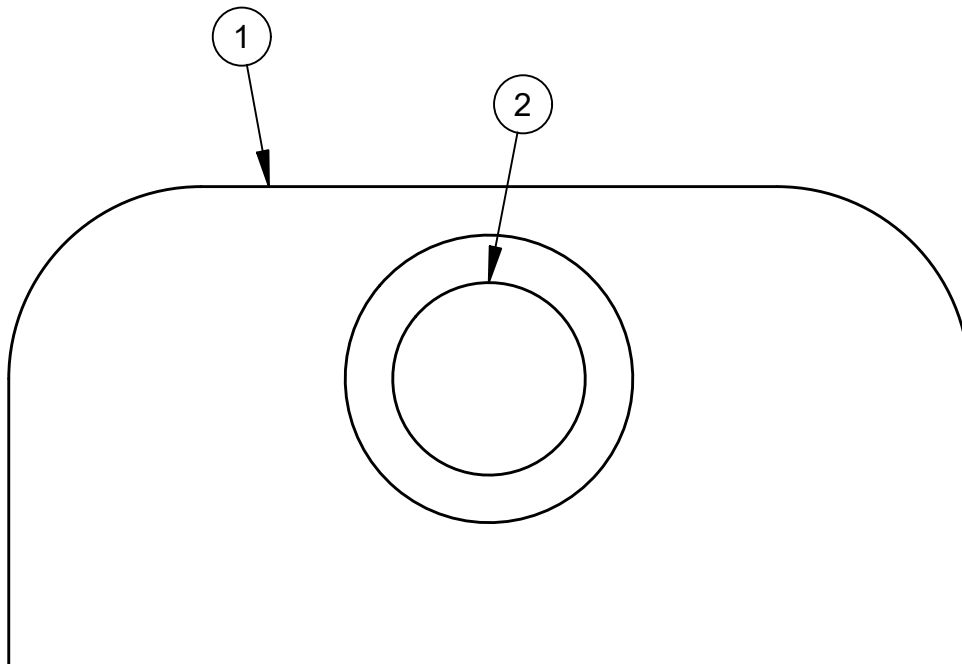
## SECTION 1 PARTS



| ITEM | PART # | DESCRIPTION                               | QTY |
|------|--------|-------------------------------------------|-----|
| 1    | 010050 | Fastener, Nut, Hex, 1/2"-13               | 6   |
| 2    | 015682 | Fastener, External Tooth, 3/8"            | 6   |
| 3    | 015683 | Fastener, Bolt, Hex Head, 3/8"-16 x 7/8"  | 6   |
| 4    | 015684 | Fastener, Nut, Hex, 3/8"-16               | 6   |
| 5    | 015686 | Fastener, Bolt, SQHSS, 3/8"-16 x 1"       | 6   |
| 6    | 015692 | Cap, Grease, 1/4", Plastic, Red           | 6   |
| 7    | 024755 | Fitting, Grease, 1/8"-27 NPT, 45°         | 6   |
| 8    | 028216 | Fastener, Bolt, 1/2"-13 x 1-1/2", Grade 8 | 6   |
| 9    | 033034 | Lever, Lift, Universal                    | 6   |
| 10   | 040792 | Clip, Spider Spring, 46-48                | 6   |
| 11   | 064198 | Boss, Spider, 6-Blade, Universal          | 1   |
| 12   | 060537 | Arm, Trowel, 4ft, for 6-Arm Spider        | 6   |

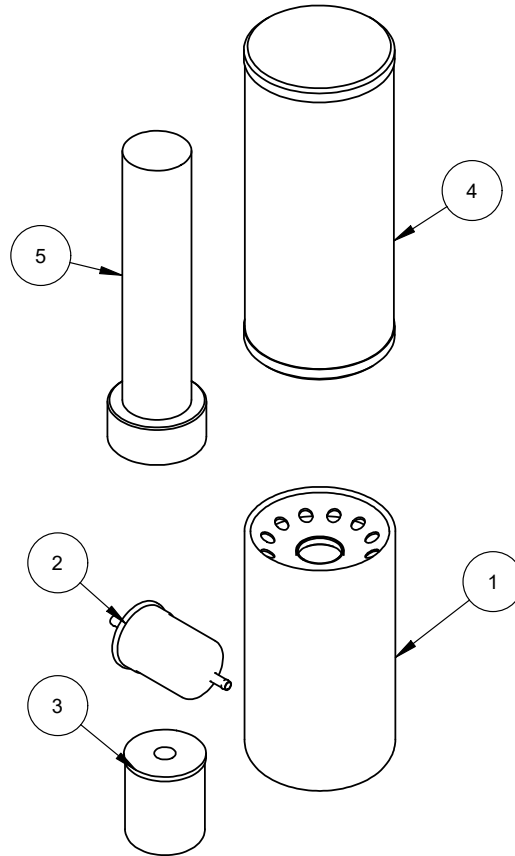
## SECTION 1 PARTS

### Bearing Block Assembly (064260)



| ITEM | PART NO. | DESCRIPTION                                            | QTY |
|------|----------|--------------------------------------------------------|-----|
| 1    | 064259   | BLOCK, FOR BEARING BLOCK                               | 1   |
| 2    | 068157   | FLANGED BEARING, 1" ID X 1 LONG OIL IMPREGNATED BRONZE | 1   |

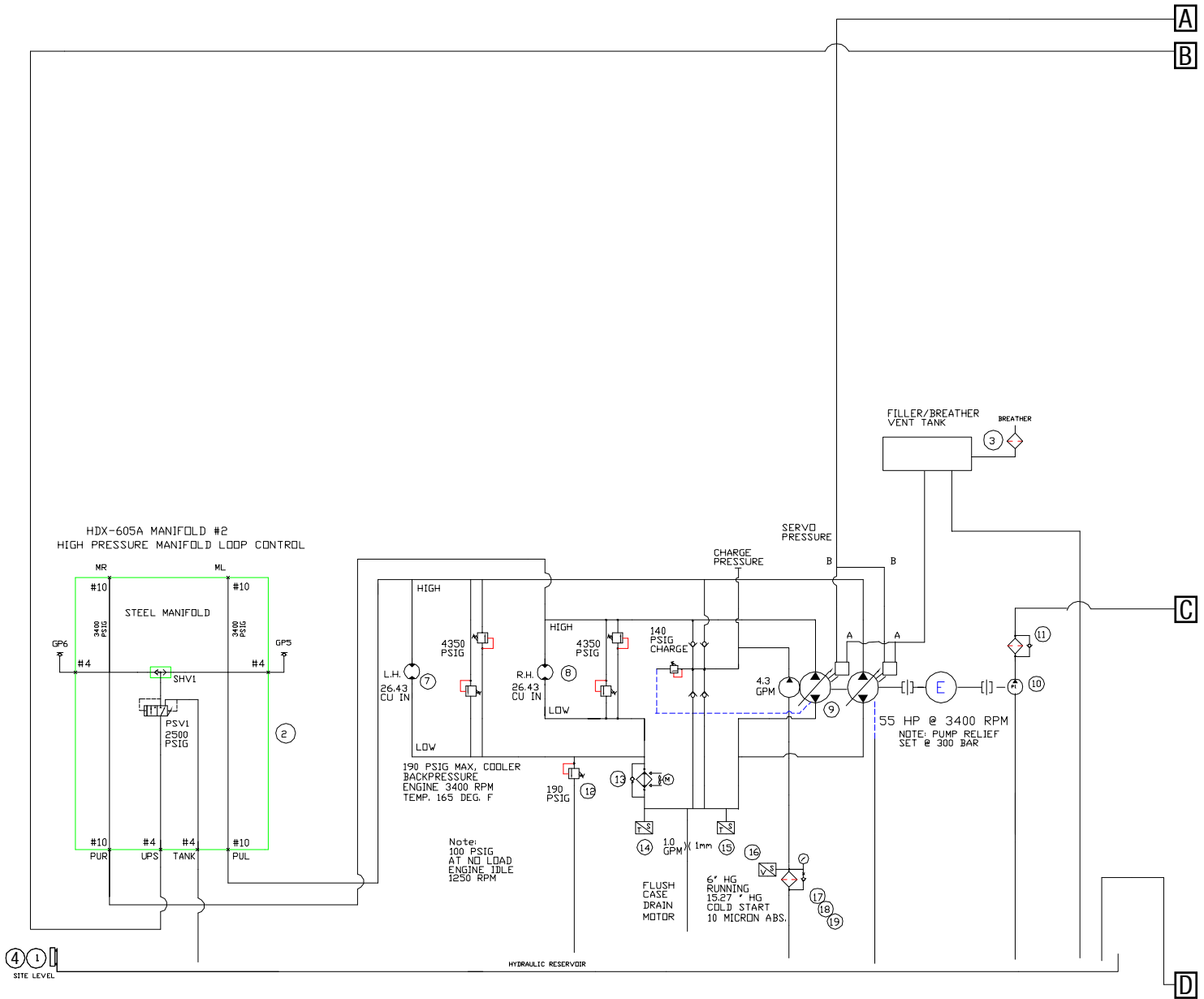
Note: Images for reference only

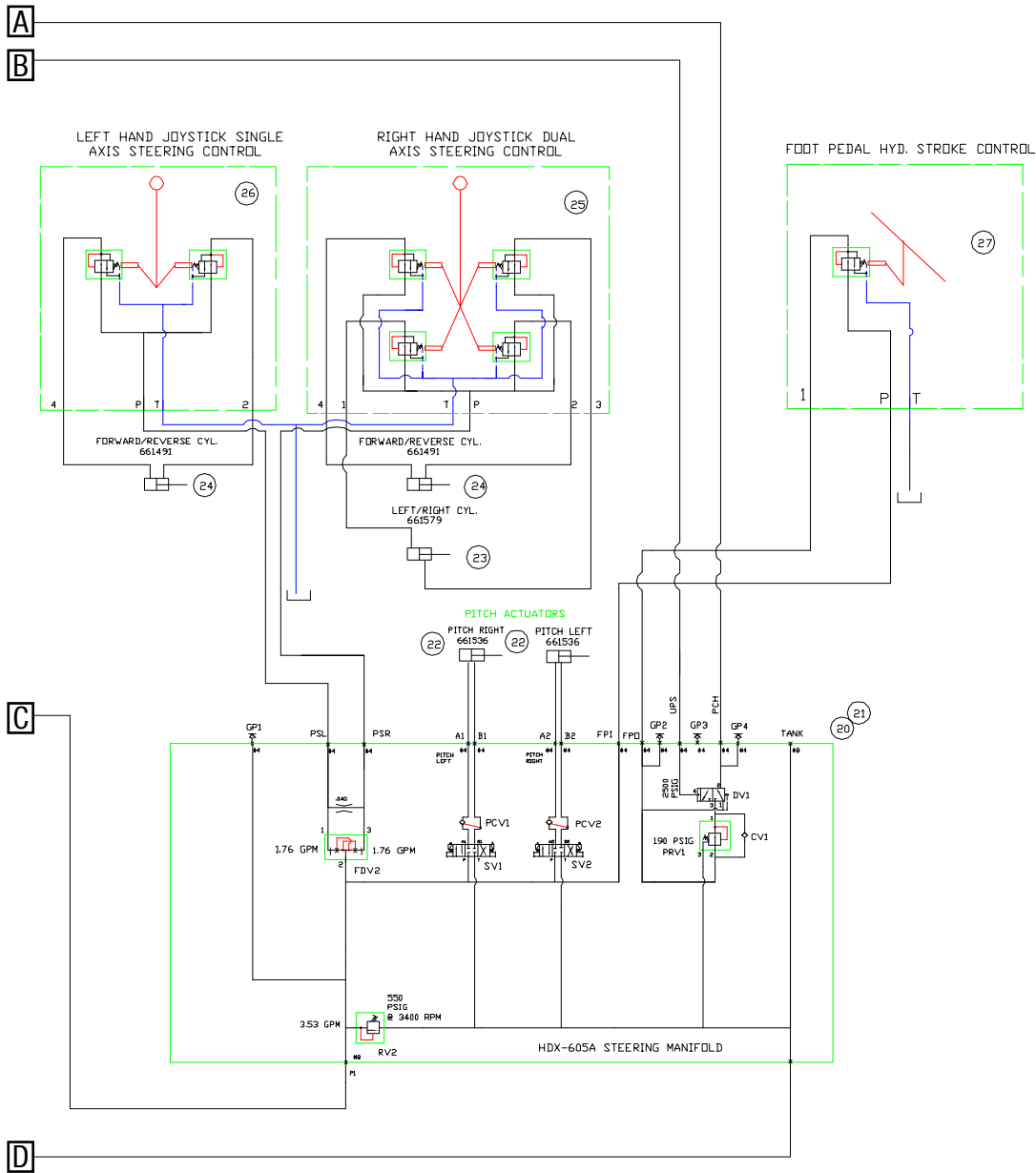


| ITEM | PART NO. | DESCRIPTION                             | QTY |
|------|----------|-----------------------------------------|-----|
| 1    | 049801   | FILTER, HYDRAULIC SPIN-ON               | 1   |
| 2    | 075759   | FUEL FILTER, FOR PSI 2.4L ENGINE HDX615 | 1   |
| 3    | 079296   | ELEMENT, OIL FILTER FOR 2.4L PSI ENGINE | 1   |
| 4    | 079373   | FILTER, ELEMENT AIR PRIMARY F/ 2.4L PSI | 1   |
| 5    | 079374   | FILTER, ELEMENT AIR SAFETY F/ 2.4L PSI  | 1   |

# SECTION 1 PARTS

## Hydraulic Schematic





CUSTOMER: ALLEN ENG.  
 DATE: 9/30/2018  
 PROJECT: HDX-605A GASOLINE VERSION RIDING TROWEL  
 FILE: ALLEN-118 (HDX-605A GASOLINE VERSION.DWG  
 BY: MCKEAN FLUID-AIR SYS. INC.  
 MICHAEL W. MCKEAN  
 SPECIAL NOTES:

PUMP RELIEF: 300 BAR  
 CHARGE PUMP: 150 DEGREES F AT 3400 RPM ( 140 PSIG)  
 CHARGE PUMP: 150 DEGREES F AT 1250 RPM ( 100 PSIG)  
 RV2 STEERING PRESSURE: 150 DEGREES F AT 3400 RPM (490 - 550 PSIG)  
 COLD STARTUP TEMPERATURE :50 DEGREES F  
 HIGH TEMPERATURE ALARM 180 DEGREES F  
 FILTER VACUUM SWITCH SET AT 7 IN HG ALARM LIGHT

# SECTION 1 PARTS

## Hydraulic System - Components

### Bill of Material - HDX615 Hydraulic System Components

| ITEM # | AEC PART # | DESCRIPTION                                   | QTY |
|--------|------------|-----------------------------------------------|-----|
| -      | 077722     | Kit, Component, Hydraulic, HDX615             | 1   |
| 1      | 046731     | Sight Gauge                                   | 1   |
| 2      | 048657     | Valve, High Pressure                          | 1   |
| 3      | 047886     | Breather with filter                          | 1   |
| 4      | 045948     | Magnetic plug                                 | 1   |
| 5      | -          | N/A                                           | -   |
| 6      | -          | N/A                                           | -   |
| 7      | 079396     | Motor, SIA LH threaded shaft RH SOM           | 1   |
| 8      | 079395     | Motor, SIA RH threaded shaft LH SOM           | 1   |
| 9      | 068610     | Pump, Tandem piston                           | 1   |
| 10     | 068611     | Pump, Auxiliary Gear                          | 1   |
| 11     | 043475     | Filter assembly, In-line                      | 1   |
| 12     | 068624     | Assembly, Cooler Relief Valve (set @ 190 PSI) | 1   |
| 13     | 068616     | Cooler, Air/Oil                               | 1   |
| -      | 068620     | Switch, Cooler Fan, Relay                     | 1   |
| 14     | 068622     | Switch, Cold Start Temperature                | 1   |
| 15     | 068623     | Switch, High Temperature (80°C, N.O.)         | 1   |
| 16     | 068626     | Switch, Vacuum (Deutsch Connector, N.O.)      | 1   |
| 17     | 066149     | Filter, Suction head                          | 1   |
| 18     | 049801     | Filter, Element, Suction, 10 Micron           | 1   |
| 19     | 046369     | Gauge, Suction Filter                         | 1   |
| 20     | 068619     | Manifold, Steering                            | 1   |
| 21     | -          | N/A                                           | -   |
| 22     | 048659     | Cylinder, Pitch                               | 2   |
| 23     | 048660     | Cylinder, Steering, Left/Right                | 1   |
| 24     | 048661     | Cylinder, Steering, Forward/Reverse           | 2   |
| 25     | 064511     | Joystick, Right Hand                          | 1   |
| 26     | 064510     | Joystick, Left Hand                           | 1   |
| 27     | 046921     | Valve, Foot Pedal                             | 1   |

# Hydraulic System - Fitting Kit

## SECTION 1 PARTS

### NOTICE

The fitting part numbers below are for reference only. For additional details regarding the hydraulic fittings contact AEC Customer Service

| HDX615 Hydraulic System Fitting Kits (077724) |     |
|-----------------------------------------------|-----|
| DESCRIPTION                                   | QTY |
| <b>Tandem Pump</b>                            | -   |
| 6500-10-10                                    | 3   |
| 6500-10-10-0-2P5                              | 2   |
| 9002-10-08                                    | 5   |
| 2501-4-2                                      | 2   |
| 9002-4-4                                      | 5   |
| 9002-12-8                                     | 1   |
| 6602-4-4-4                                    | 2   |
| <b>Steering Manifold</b>                      | -   |
| 6400-4-4-0                                    | 11  |
| SMK20-7/16UNF-VE-C6F                          | 2   |
| 6400-9-8-0                                    | 1   |
| 6801-6-8 NWO                                  | 1   |
| <b>Auxiliary Pump</b>                         | -   |
| 6400-10-10-0                                  | 2   |
| 9054-90-SP                                    | 1   |
| 6809-10-10 NWO                                | 1   |
| <b>Vent Tank</b>                              |     |
| SPB-1-0-10-N04-0                              | 1   |
| 6400-4-8-0                                    | 1   |
| <b>Main Frame</b>                             | -   |
| 2700-4-4LN-0                                  | 5   |
| SMK20-JIC1/4-VK                               | 5   |
| 6409-209                                      | 2   |
| 6602-6-6-6                                    | 1   |
| SWL-CL-5-WR                                   | 1   |
| 7574051, Magnetic plug                        | 3   |
| 6407-16-16 NWO                                | 1   |
| 2406-6-4                                      | 1   |
| 6801-4-8 NWO                                  | 1   |
| 6409-8-0                                      | 1   |
| 6801-6-8 NWO                                  | 1   |
| 6804-6-8-6 NWO                                | 2   |
| 6400-10-12-0                                  | 2   |
| 6400-8-12-0                                   | 1   |
| 6410-20-16-0                                  | 1   |
| 6801-16-16 NWO                                | 1   |
| 6400-8-8-0                                    |     |

| HDX615 Hydraulic System Fitting Kits (077724) |     |
|-----------------------------------------------|-----|
| DESCRIPTION                                   | QTY |
| <b>Pitch &amp; Steer Cylinder</b>             | -   |
| 6400-4-6-0                                    | 10  |
| <b>Foot Valve</b>                             | -   |
| 6801-6-6 NWO                                  | 1   |
| 6801-4-6 NWO                                  | 2   |
| <b>LH Motor</b>                               | -   |
| 6400-10-16                                    | 2   |
| 9002-6-4                                      | 2   |
| 9002-4-4                                      | 1   |
| <b>RH Motor</b>                               | -   |
| 6400-10-16                                    | 2   |
| 9002-6-4                                      | 1   |
| 6500-6-6                                      | 1   |
| 9002-L-4-4                                    | 1   |
| 9002-4-4                                      | 1   |
| <b>Unloader Valve</b>                         | -   |
| Smk20-7/16UNF-UE-C6F                          | 1   |
| 6410-10-4-0                                   | 4   |
| 6400-4-4                                      | 6   |
| <b>Cooler</b>                                 | -   |
| 6602-12-12-12-2PS                             | 1   |
| 6565-12-12                                    | 1   |
| 6504-12-12                                    | 1   |
| 6602-12-12-12-2PS                             | 1   |
| 2501-4-2                                      | 1   |
| CFJ4-31-SS                                    | 1   |
| 2404-4-2                                      | 1   |
| 6400-12-8                                     | 1   |
| 304-C-12-4PS                                  | 1   |
| 6400-8-8                                      | 1   |
| 6602-12-12-12                                 | 3   |
| 9002-12-16                                    | 2   |
| <b>RH Joystick</b>                            | -   |
| 6400-4-4                                      | 5   |
| 6400-6-4                                      | 1   |
| <b>LH Joystick</b>                            | -   |
| 6400-4-4                                      | 3   |
| 6400-6-4                                      | 1   |

# SECTION 1 PARTS

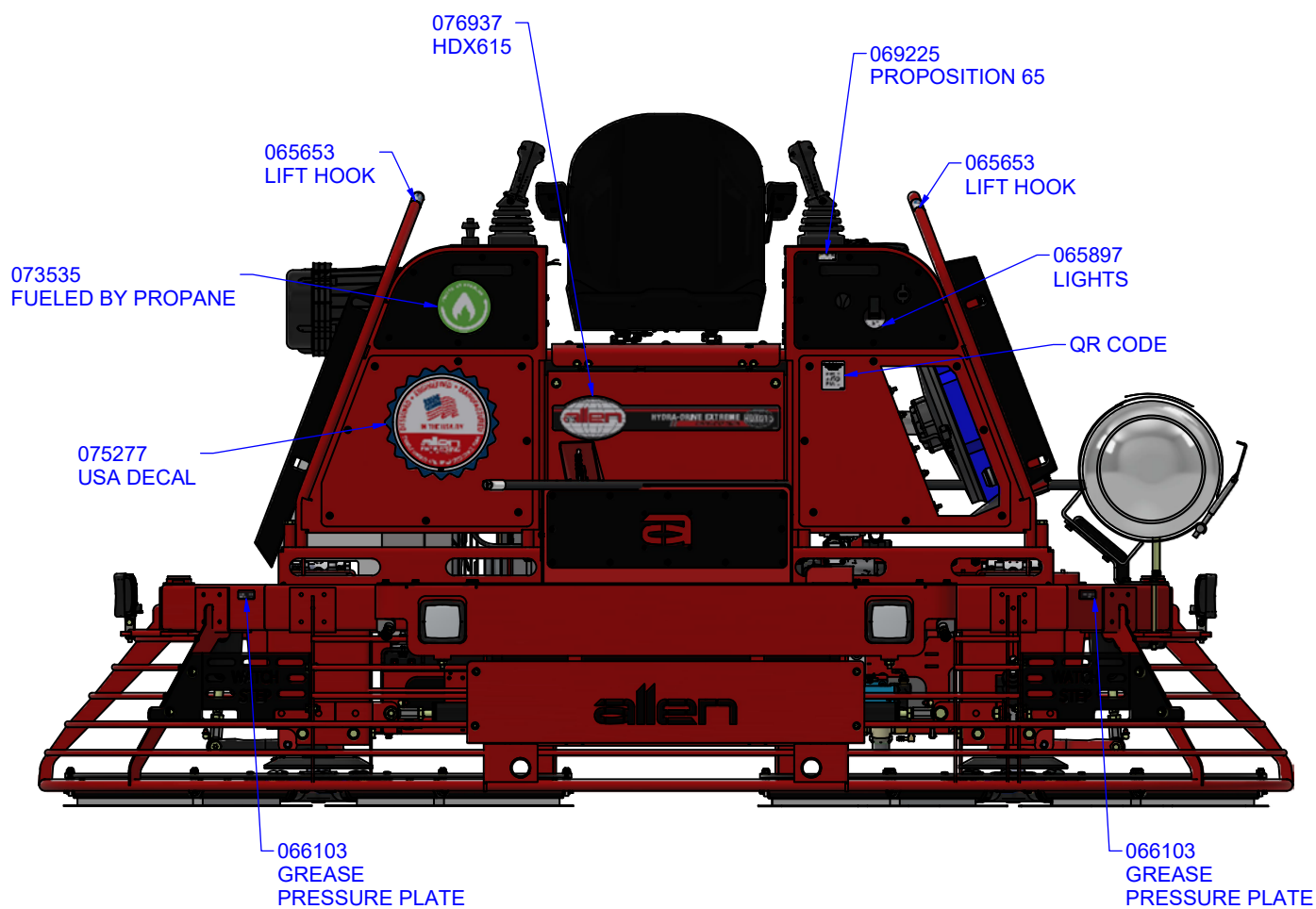
## Hydraulic System - Hoses

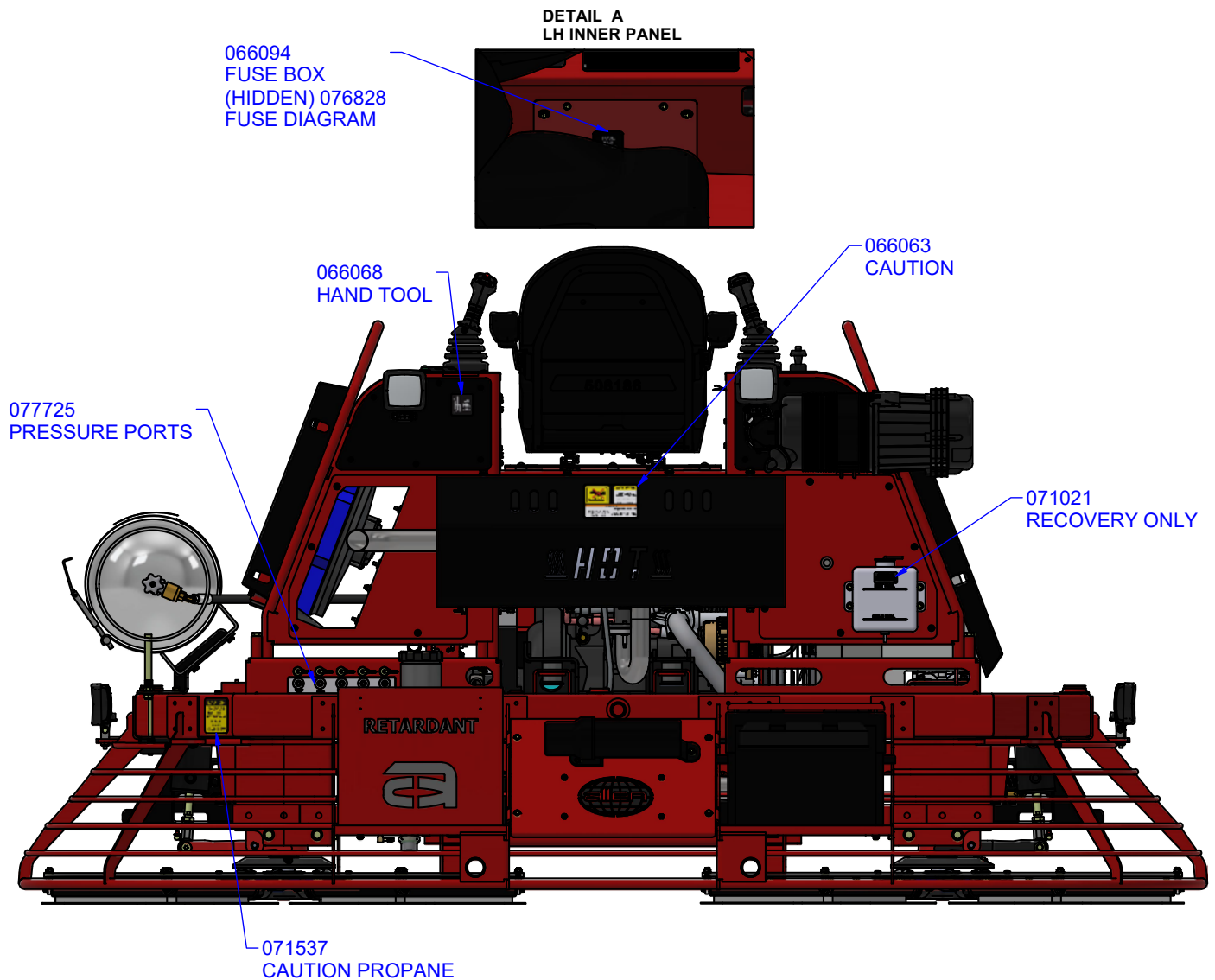
| Bill of Material - HDX615 Hydraulic System Hoses (077723) |                 |                                                 |     |
|-----------------------------------------------------------|-----------------|-------------------------------------------------|-----|
| HOSE #                                                    | CUT LENGTH (IN) | CONNECTION DETAIL                               | QTY |
| -                                                         | -               | Kit, Hose, Hydraulic, HDX615                    | 1   |
| 1                                                         | 9               | Back of Pump to Front                           | 1   |
| 2                                                         | 9               | Back of Pump to Front                           | 1   |
| 3                                                         | 14              | Pump to Steering Block                          | 1   |
| 4                                                         | 17              | Auxiliary Pump to Steering Block                | 1   |
| 5                                                         | 80              | Left Hand Pitch Cylinder to Steering Block      | 1   |
| 6                                                         | 80              | Left Hand Pitch Cylinder to Steering Block      | 1   |
| 7                                                         | 72              | Left/Right Cylinder to Joystick                 | 1   |
| 8                                                         | 72              | Left/Right Cylinder to Joystick                 | 1   |
| 9                                                         | 44              | Left Hand Forward/Reverse Cylinder to Joystick  | 1   |
| 10                                                        | 44              | Left Hand Forward/Reverse Cylinder to Joystick  | 1   |
| 11                                                        | 44              | Right Hand Forward/Reverse Cylinder to Joystick | 1   |
| 12                                                        | 44              | Right Hand Forward/Reverse Cylinder to Joystick | 1   |
| 13                                                        | 48              | Right Hand Pitch Cylinder to Steering Block     | 1   |
| 14                                                        | 48              | Right Hand Pitch Cylinder to Steering Block     | 1   |
| 15                                                        | 84              | Right Hand Motor to Left Hand Motor             | 1   |
| 16                                                        | 58              | Left Hand Motor to Pump                         | 1   |
| 17                                                        | 69              | Left Hand Motor to Cooler                       | 1   |
| 18                                                        | 29              | Right Hand Motor to Pump                        | 1   |
| 19                                                        | 23              | Right Hand Motor to Cooler                      | 1   |
| 20                                                        | 18              | Right Hand Motor to Tank                        | 1   |
| 21                                                        | 36              | Tank to Left Hand Joystick                      | 1   |
| 22                                                        | 44              | Tank to Right Hand Joystick                     | 1   |
| 23                                                        | 43              | Tank to Steering Block                          | 1   |
| 24                                                        | 28              | Tank Filter to Pump                             | 1   |
| 25                                                        | 16              | Unloader to Pump                                | 1   |
| 26                                                        | 21              | Unloader to Pump                                | 1   |
| 27                                                        | 16              | Tank to Auxiliary Pump                          | 1   |
| 28                                                        | 16              | Tank to Pump                                    | 1   |
| 29                                                        | 76              | Steering Block to Joystick                      | 1   |
| 30                                                        | 45              | Pressure From Steering Block to Joystick        | 1   |
| 31                                                        | 31              | Cooler Out to Front of Pump                     | 1   |
| 32                                                        | 47              | Cooler Out to Back of Pump                      | 1   |
| 33                                                        | 35              | Cooler to Left Hand Motor                       | 1   |
| 34                                                        | 30              | Cooler to Back Tank                             | 1   |
| 35                                                        | 29              | Foot Valve to Tank                              | 1   |
| 36                                                        | 18              | Foot Valve to Front of Steering Block           | 1   |
| 37                                                        | 32              | Foot Valve to Top Back of Steering Block        | 1   |
| 38                                                        | 21              | Tank to Vent Tank                               | 1   |
| 39                                                        | 20.5            | Right Hand Motor to Tank                        | 1   |
| 40                                                        | -               | Test Hose Assembly (20in, 508mm)                | 2   |
| 41                                                        | -               | Test Hose Assembly (27in, 686mm)                | 3   |

# **SECTION 2: DECALS**

## SECTION 2 DECALS

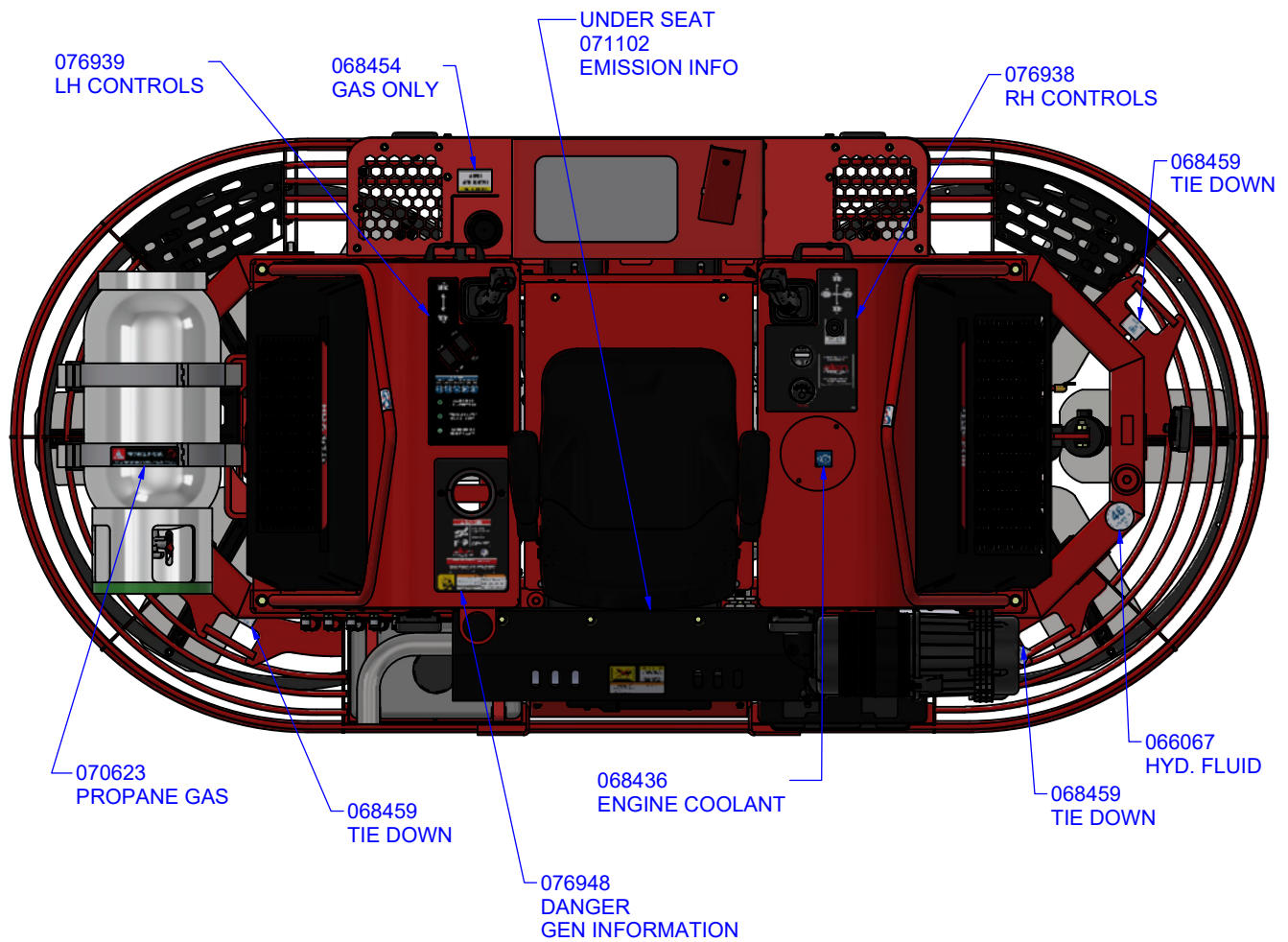
### Decals - Front (Kit #: 076114)



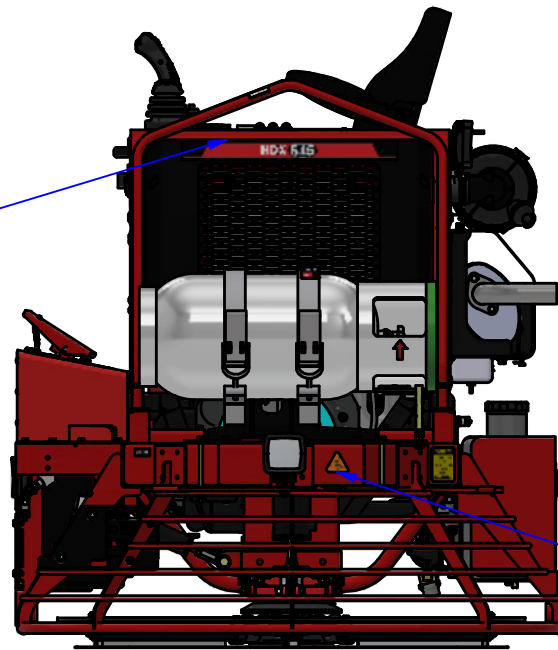


## SECTION 2 DECALS

### Decals - Top (Kit #: 076114)

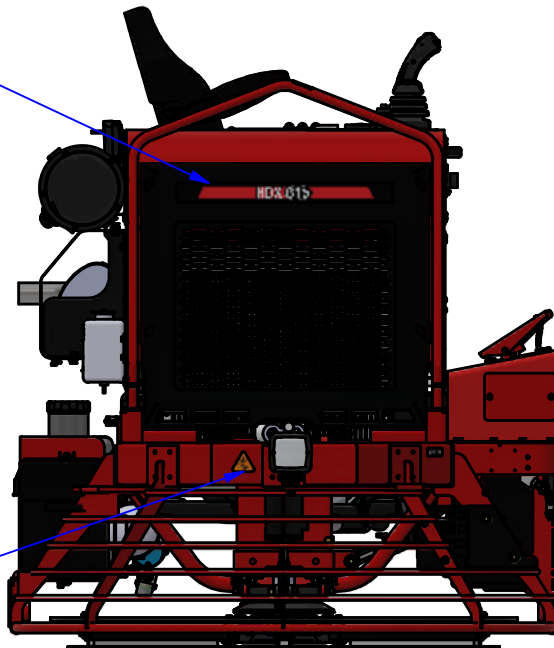


076936  
SIDE MODEL DECAL



065656  
DROP HAZARD

076936  
SIDE MODEL DECAL



065656  
DROP HAZARD

## Revision Detail

### MANUAL REVISION DETAIL

| REVISION # | REVISION DATE | REVISION REFERENCE #     | REVISION BY |
|------------|---------------|--------------------------|-------------|
| -          | 07/24         | Initial Release          | MK          |
| A          | 01/30         | 24-622 - Blade PN Change | MK          |
| B          | 10/25         | Added Filter parts page  | MK          |

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Allen Products are covered under one or more of the following patent numbers:  
10,100,537; 9,068,301; 9,068,300; 8,360,680; 7,690,864; 7,114,876B1; 6,857,815B2; 6,582,153  
With other Patents Pending.

Printed in U.S.A.





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