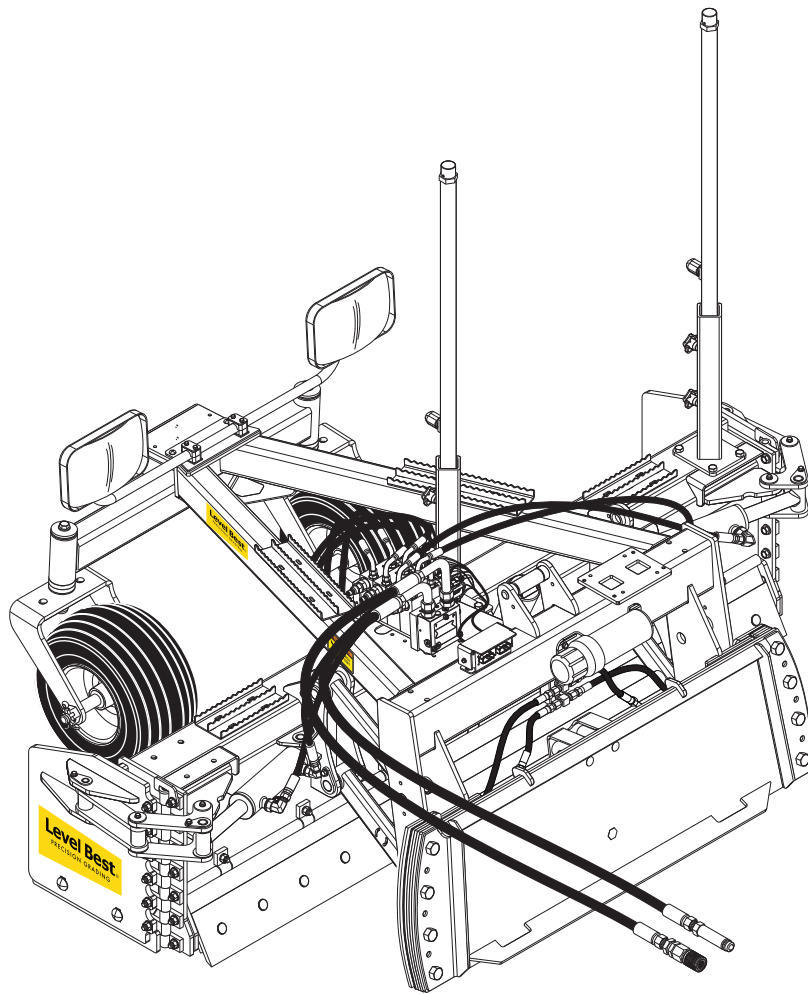


OPERATORS & PARTS MANUAL

PDX - SERIES BOX BLADE



ATI Group, LLC
New Holland, PA 17557
1-800-342-0905
www.LevelBestGrading.com

JUNE 2025
CAT.# PDX-O&PM 06/01/25

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ATI Group, LLC
250 Earland Drive
New Holland, PA 17557 U.S.A.

DISCLAIMER

THE INFORMATION IN THIS MANUAL IS PROVIDED TO PROMOTE THE SAFE USE OF, AND ASSIST THE OPERATOR IN ACHIEVING THE BEST PERFORMANCE FROM, THE PARA-LEVEL GRADING BOX DESCRIBED HEREIN, FOR THEIR INTENDED APPLICATIONS.

USING THIS DOCUMENT

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WARRANTY

General Provisions. The warranties described below are provided by ATI Group LLC (“ATI”) to the original purchaser of new Level Best grading equipment (“Equipment”) from an authorized Level Best dealer. Under these warranties, ATI will repair or replace, at its option, any covered part which is found to be defective in material or workmanship during the applicable warranty term. Warranty service must be performed by a dealer or service center authorized by ATI to sell and/or service the type of Equipment involved, which will use only new or remanufactured parts or components furnished by ATI. Warranty service will be performed without charge to the purchaser for parts or labor. The purchaser will be responsible, however, for any service call and/or transportation of product to and from the dealer’s or service center’s place of business, for any premium charged for overtime labor requested by the purchaser, and for any service and/or maintenance not directly related to any defect covered under the warranties below.

What Is Warranted. All parts of any new Level Best grading equipment are warranted for 36 months except for the following: (1) wear parts, and (2) third-party machine guidance systems (which are warranted under their respective manufacturer’s warranty). The warranty term for all coverage begins at the time that any person, dealer, or agent first places a unit into service. At the latest, a unit is considered placed into service when delivered to an initial retail purchaser.

What Is Not Warranted. ATI is not responsible for the following:

- (1) Used Equipment;
- (2) Any Equipment that has been altered or modified in ways not approved by ATI;
- (3) Depreciation or damage caused by normal wear, lack of reasonable and proper maintenance, failure to follow operating instructions, misuse, lack of proper protection during storage, or accident;
- (4) Normal maintenance parts and service;
- (5) Economic loss including lost profit, equipment rental, or other expenses.

Securing Warranty Service. To secure warranty service, the purchaser must (1) Report the product defect to an authorized dealer and request repair within the applicable warranty term, (2) Present evidence of the warranty start date, and (3) Make the equipment available to an authorized dealer or service center within a reasonable time.

Limitation Of Implied Warranties and Other Remedies. To the extent permitted by law, neither ATI nor any company affiliated with it makes any warranties, representations or promises as to the quality, performance or freedom from defect of the Level Best Equipment covered by this warranty. IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, TO THE EXTENT APPLICABLE, SHALL BE LIMITED IN DURATION TO THE APPLICABLE PERIOD OF WARRANTY SET FORTH ON THIS PAGE. THE PURCHASER’S ONLY REMEDIES IN CONNECTION WITH THE BREACH OR PERFORMANCE OF ANY WARRANTY ON THE LEVEL BEST EQUIPMENT ARE THOSE SET FORTH ON THIS PAGE. IN NO EVENT WILL THE DEALER, ATI, OR ANY COMPANY AFFILIATED WITH ATI, BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

No Dealer Warranty. The selling dealer makes no warranty of its own and the dealer has no authority to make any representation or promise on behalf of ATI, or to modify the terms or limitations of this warranty in any way.

SAFETY INFORMATION

This manual is furnished to you, the owner/operator, as a guide to get the greatest benefit from your grading box. ATI Group, LLC wants you to be able to get the most use out of your grading box through safe and efficient operation.

Before attempting to operate the grading box, carefully read all sections of this manual. Be sure that you thoroughly understand all of the safety information and operating procedures.

SAFETY PRECAUTION DEFINITIONS

Dangers, Warnings, Cautions, and Notes are strategically placed throughout this manual to further emphasize the importance of personal safety, qualifications of operating personnel, and proper use of the grading box in its intended application. These precautions supplement and/or complement the safety information decals affixed to the unit and include headings that are defined as follows:

DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

Indicates a potentially hazardous situation or practice which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation or practice which, if not avoided, will result in damage to equipment and/or minor injury.

NOTE: Indicates an operating procedure, practice, etc., or portion thereof, which is essential to highlight.

- Always use caution and safe operating practices when operating this equipment.
- Always set the Automatic/Manual Switch on the Control Panel to MANUAL before leaving the operator's seat or whenever the machine is not moving.
- Always allow for clearance under the cutting edge of the machine when tuning the system

or when switching to automatic control.

Insufficient clearance could cause the machine to lift itself off the ground as its cutting edge attempts to achieve the programmed slope.

- Never adjust the position of the laser receiver when the system is in automatic control.
- Never perform service work on your machine or the Automatic Control System when the system is in automatic control.
- Install all safety panels and guards before operating your equipment.
- Stay clear of all moving parts when the machine is in operation.
- Keep all people clear of the machine when it is running.
- Keep feet and other body parts from under the cutting edges of the machine at all times.
- Read and comply with all safety recommendations of your tractor/skid steer manufacturer, as outlined in its operator and service manuals.

NOTE: References made to left, right, front, and rear are those directions viewed from behind the power unit and grading box.

NOTE: Some equipment depicted in illustrations may not reflect exact production model configurations.

NOTE: All safety, operating, and servicing information reflects current production models at the time of publication of this manual.

NOTE: ATI Group, LLC reserves the right to discontinue models at any time, change specifications, and improve design without notice and without incurring obligation on goods previously purchased and to discontinue supplying any part listed, when the demand does not warrant production.

NOTE: Always recycle used hydraulic hoses and foam filled tires.

NOTE: Be sure to use the PDX within the operating temperature range of the host machine.

OVERVIEW

The Level Best grading box is a cost-efficient method for fine grading. Various capacities sized to fit all sizes of skid steer loaders or compact track loaders (CTL) with a choice of automatic control systems are available.

A typical 2D system provides laser-guided depth control along a plane from a single reference point which must be set up for each job site. A 3D system adds locating ability to the control through either a satellite constellation (GPS) or local positioning system (LPS). The control system not only knows the desired depth on the plane, but the location of the machine on the job site and, in the case of a GPS system, even which job site you are currently on.

The desired blade depth is processed and automatically controls the grading box's hydraulics to maintain the elevation of the cutting edge based on the site plan.

OPERATION

Operation of the grading box and automatic control system is typically in automatic mode. Depending upon the type of CTL, manual override and fine tuning are available through an optional joystick control or buttons on the CTL in-cab controls.

For CTLs equipped with buttons on the in-cab joysticks, Level Best provides a brand specific loader harness. This harness plugs into the 14-Pin auxiliary electrical connector on the loader boom.

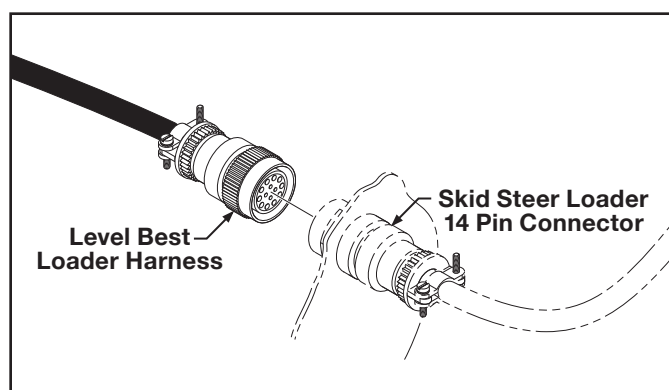


Figure 1-1. Connector 14 - Socket

See **Figure 2-1** through **Figure 2-15** starting on Page 2.1 for specific loader brand joystick layouts and corresponding Level Best functions.

NOTE: This machine attachment may be used in all weather but not submerged. Electrical connections are rated to IP68.

(for future use)

JOYSTICK CONTROLS

LEVEL BEST UNIVERSAL AUXILIARY BUTTONS (UAB)

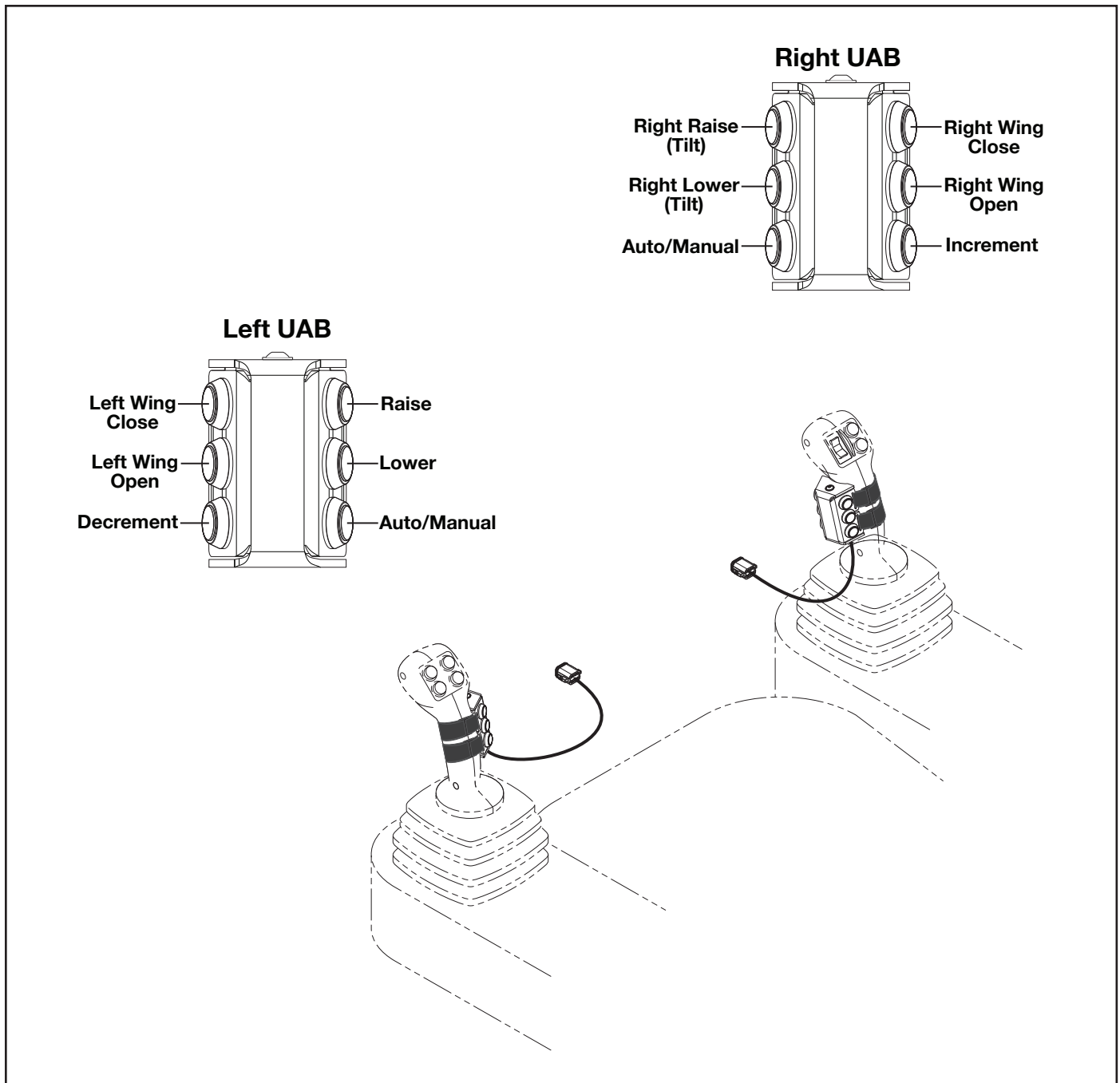


Figure 2-1. UAB Assembly 000-200-565

This joystick mounted control needs a Level Best PN 000-200-563 harness to power and communicate with the PDX's ECM shown in [Figure 5-9](#).

The device gives maximum manual control with elevation and slope control as well as individual wing open/close controls.

The device has machine guidance interface with an auto/manual button and increment/decrement buttons.

The UAB's are useful for skid loaders that provide few or no in cab buttons limiting manual control. They are also useful for skid loaders where button locations and/or combinations are not preferable.

JOYSTICK CONTROLS

LOADER JOYSTICK FUNCTIONS

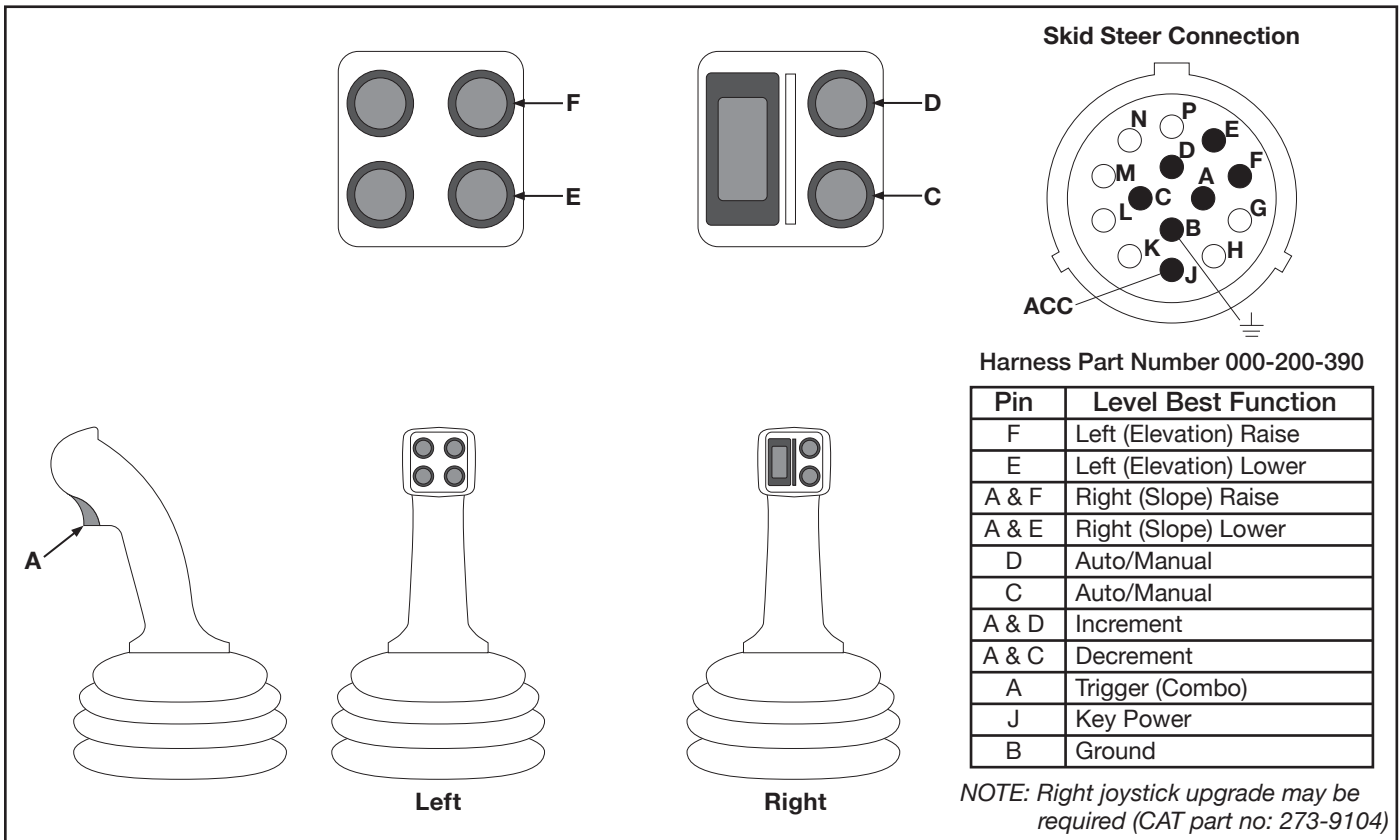


Figure 2-2. Cat D-Series Joystick Functions

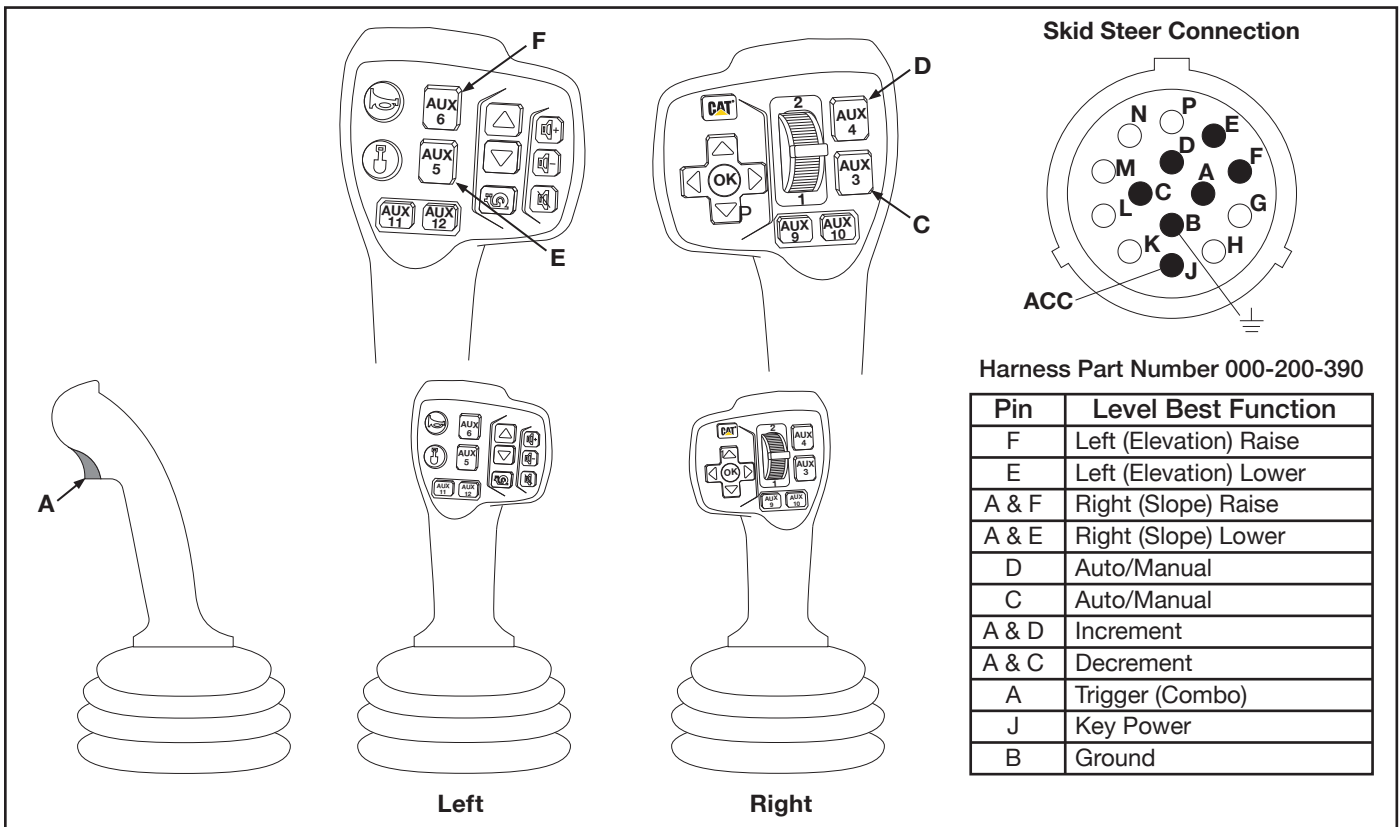


Figure 2-3. Cat Advanced Joysticks Functions

JOYSTICK CONTROLS

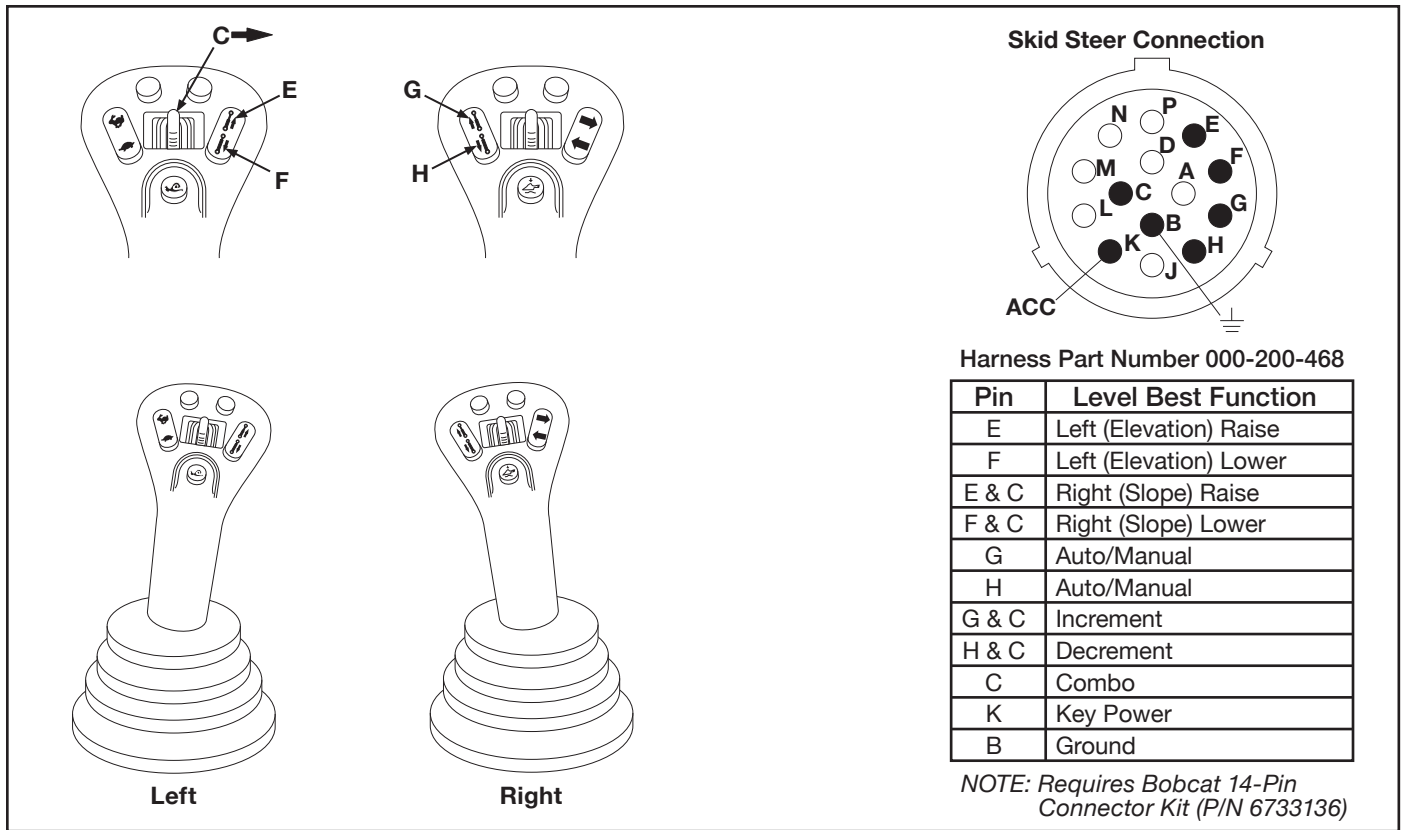


Figure 2-4. Bobcat Joystick Functions

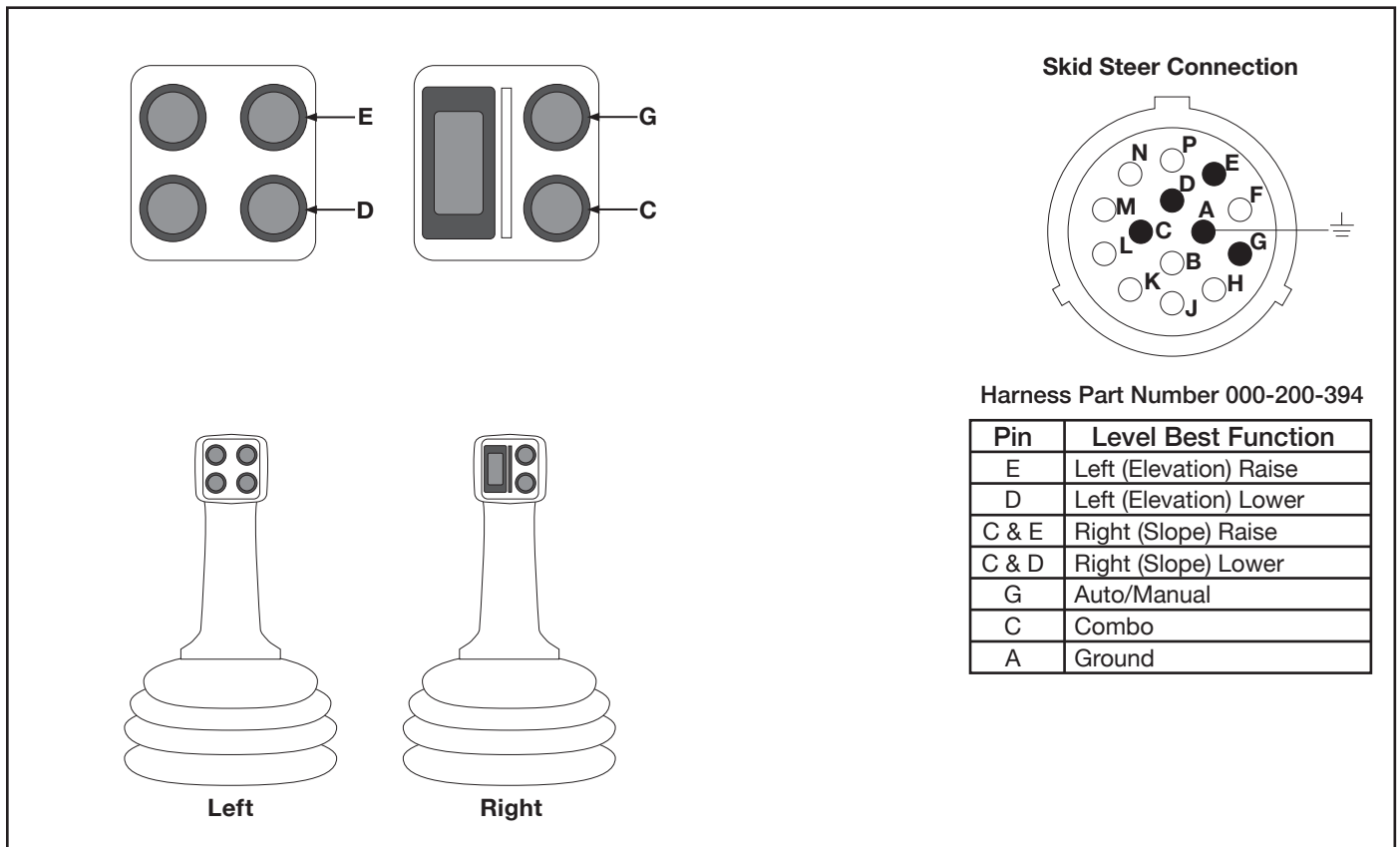


Figure 2-5. John Deere E-Series Joystick Functions

JOYSTICK CONTROLS

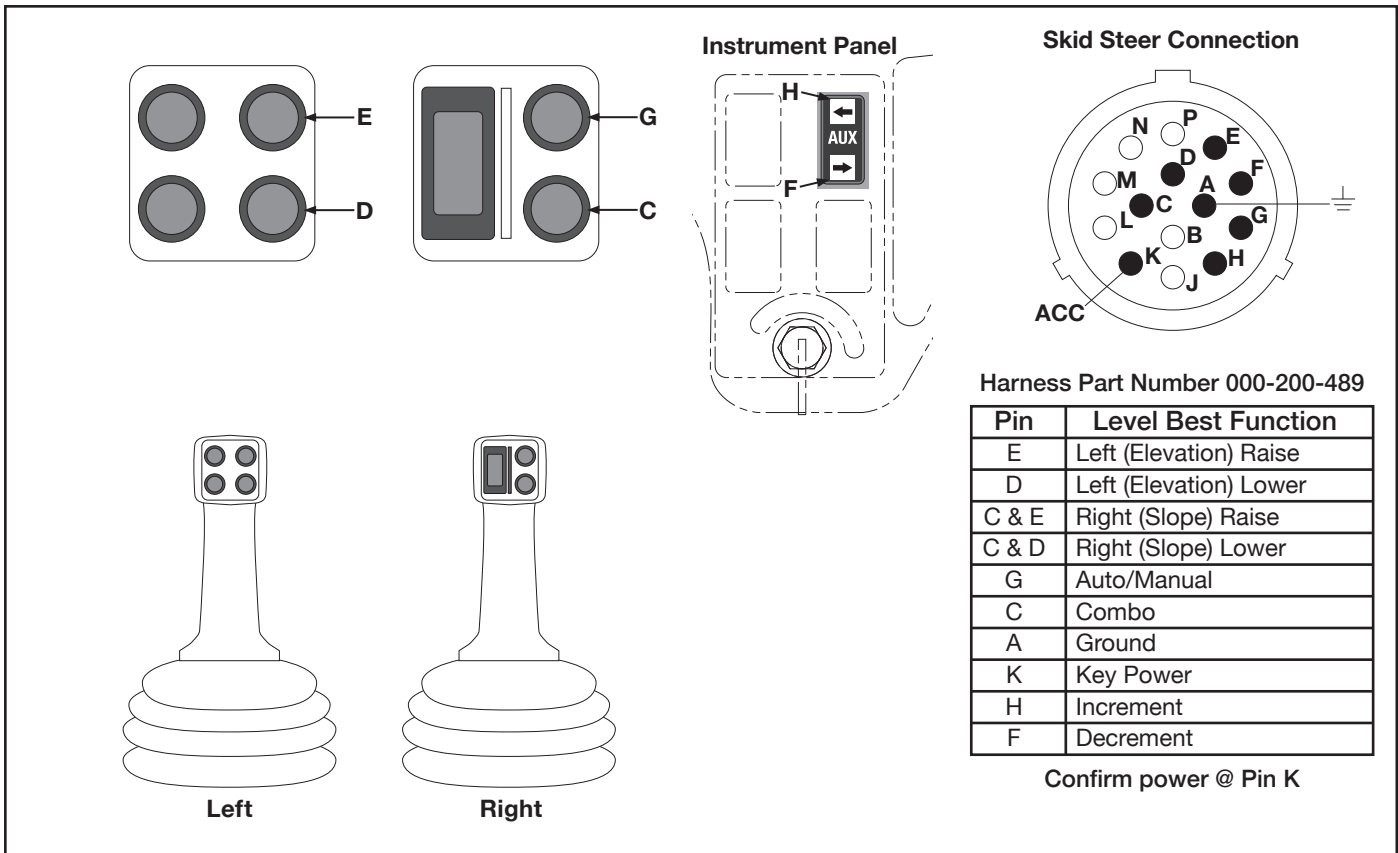


Figure 2-6. John Deere G-Series Joystick Functions

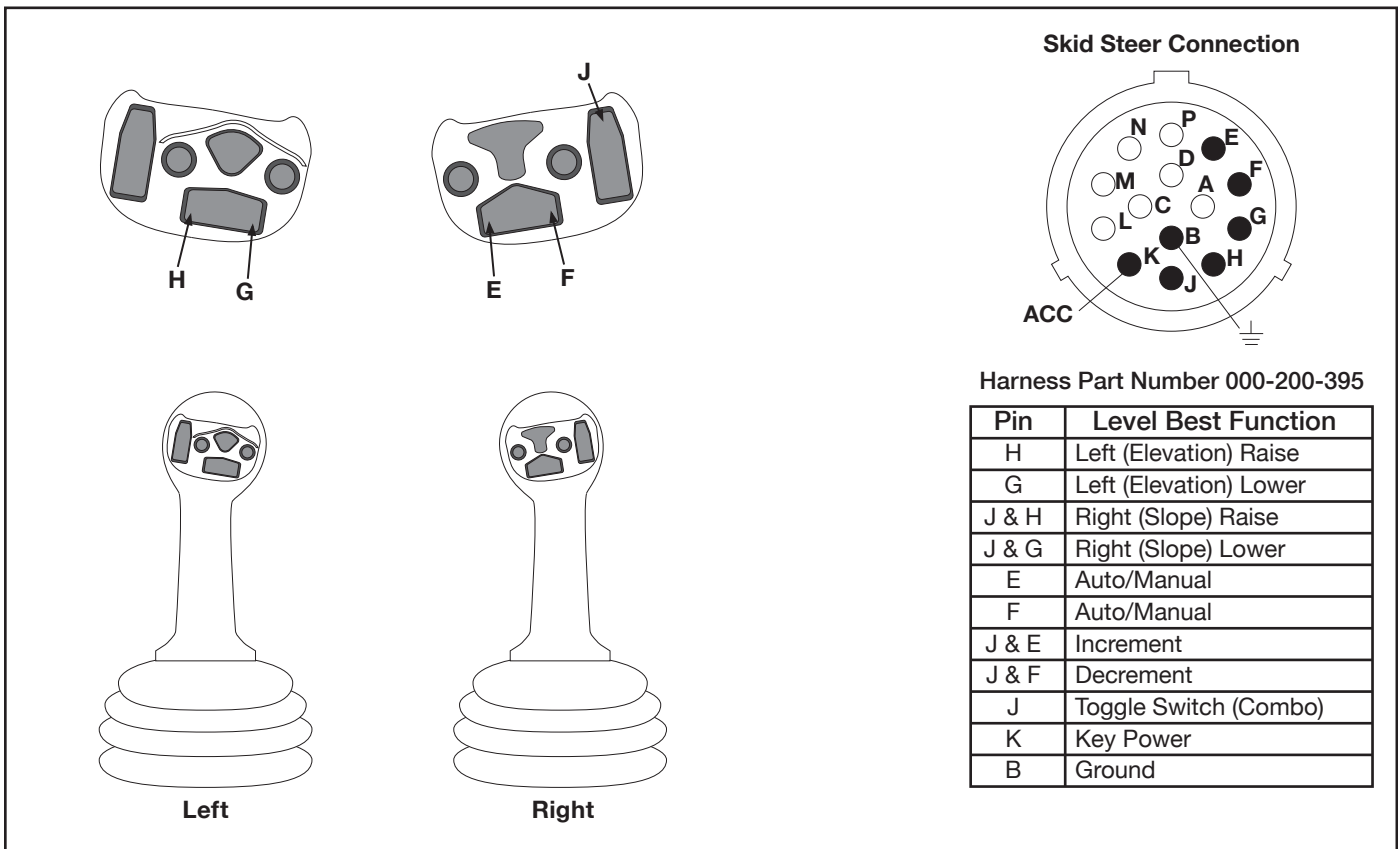


Figure 2-7. Kubota SSV65 & 75 Joystick Functions

JOYSTICK CONTROLS

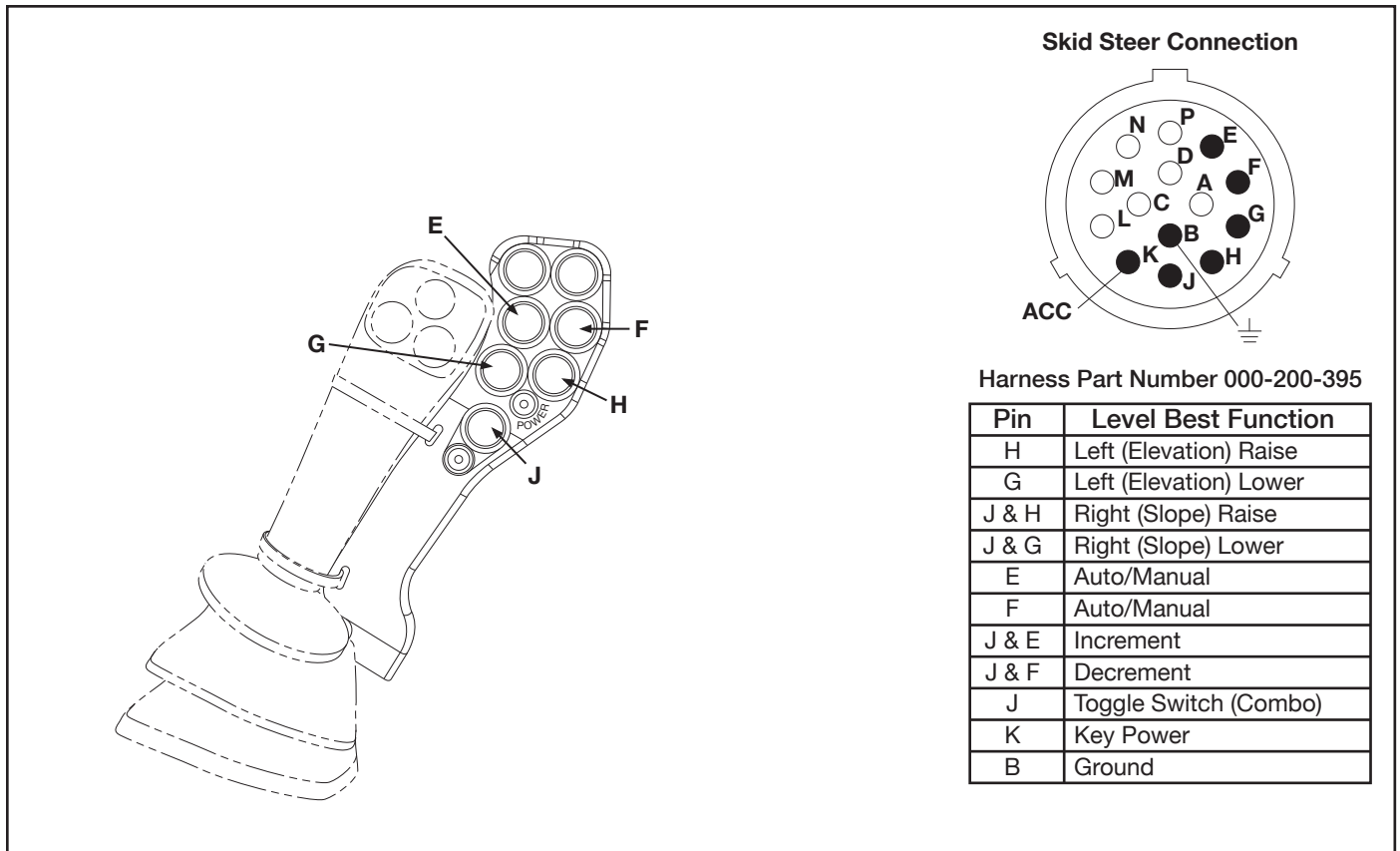


Figure 2-8. Kubota SVL 95 S6699 Multifunction Controller Kit

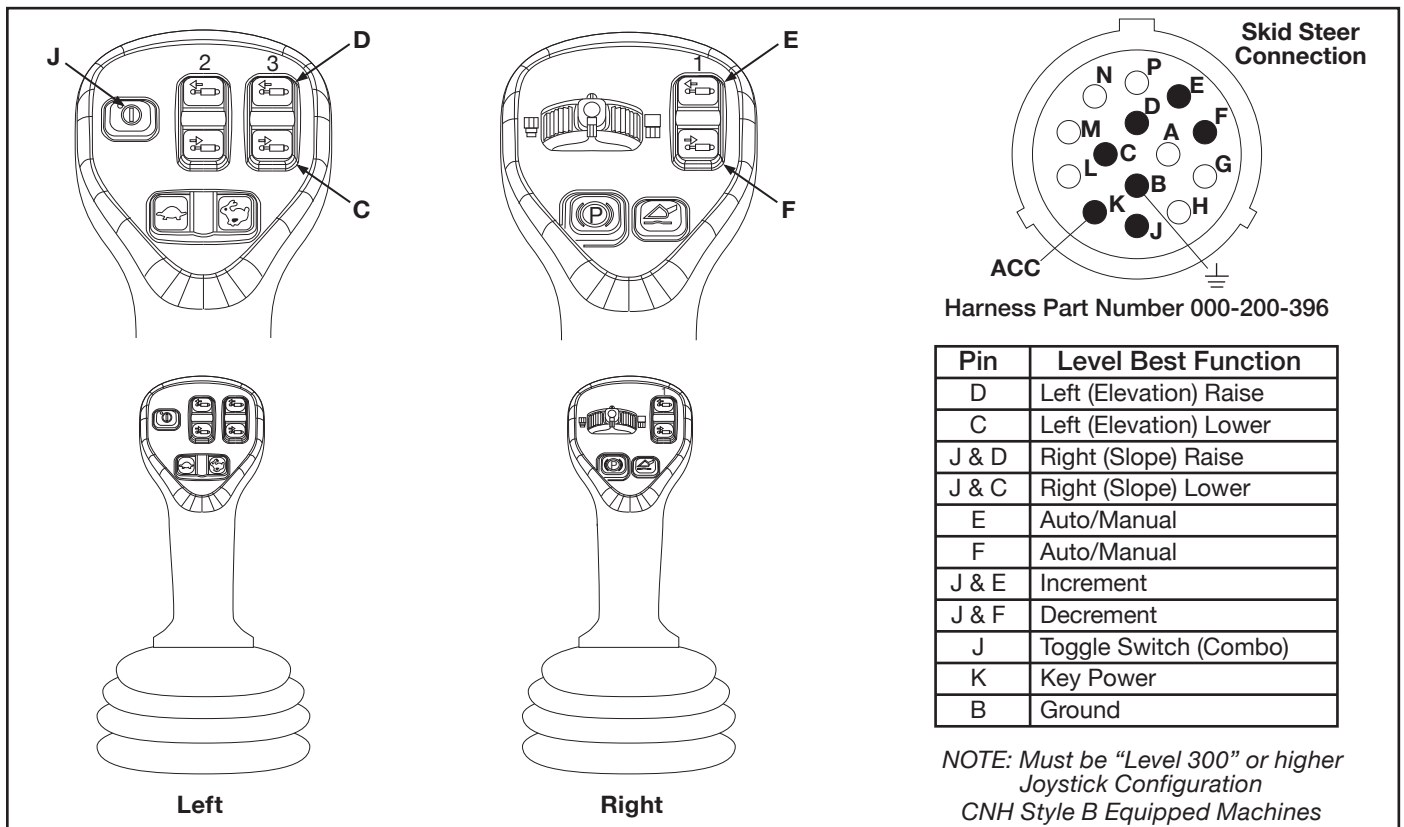


Figure 2-9. CNH Joystick Functions B-Series

JOYSTICK CONTROLS

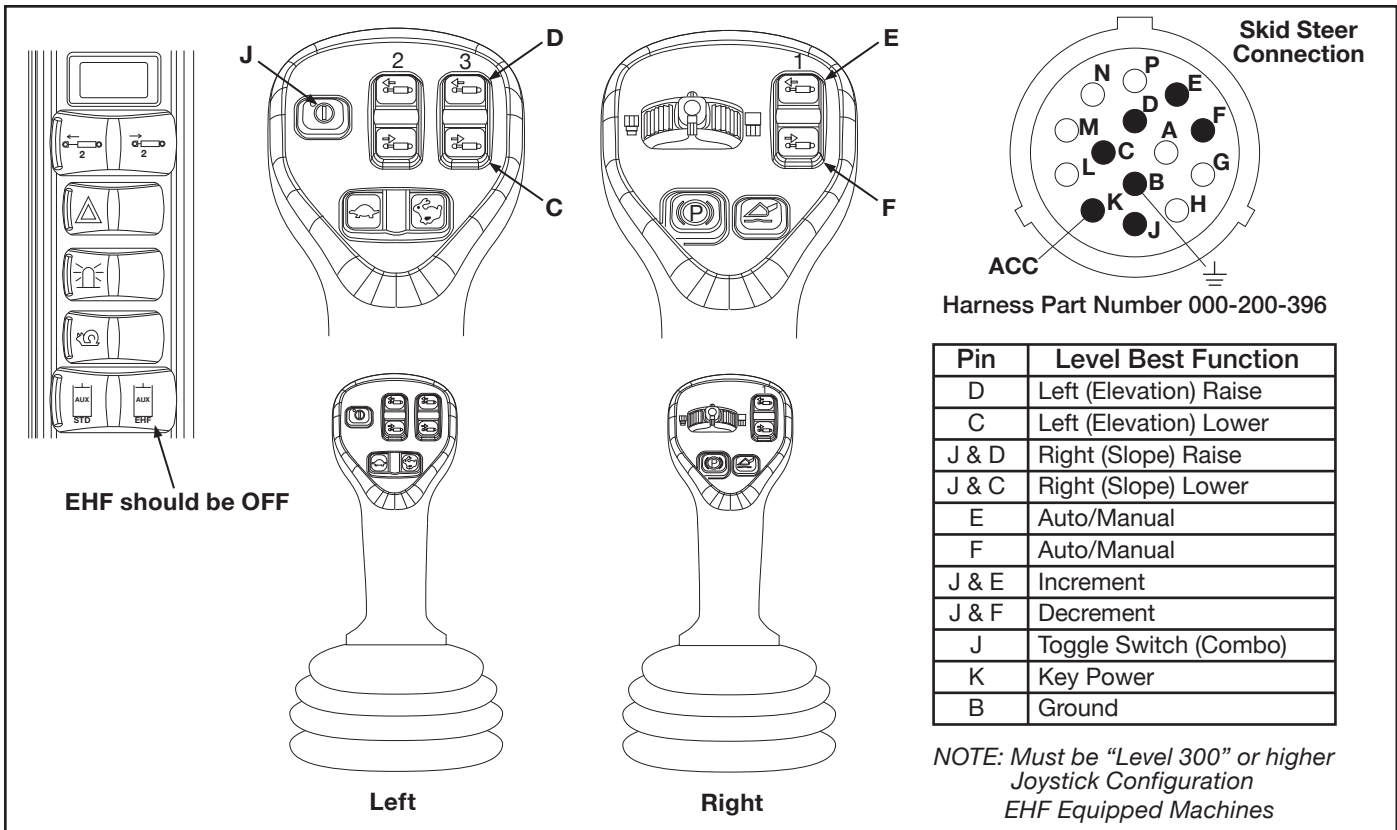


Figure 2-10. CNH Joystick Functions 550-Series

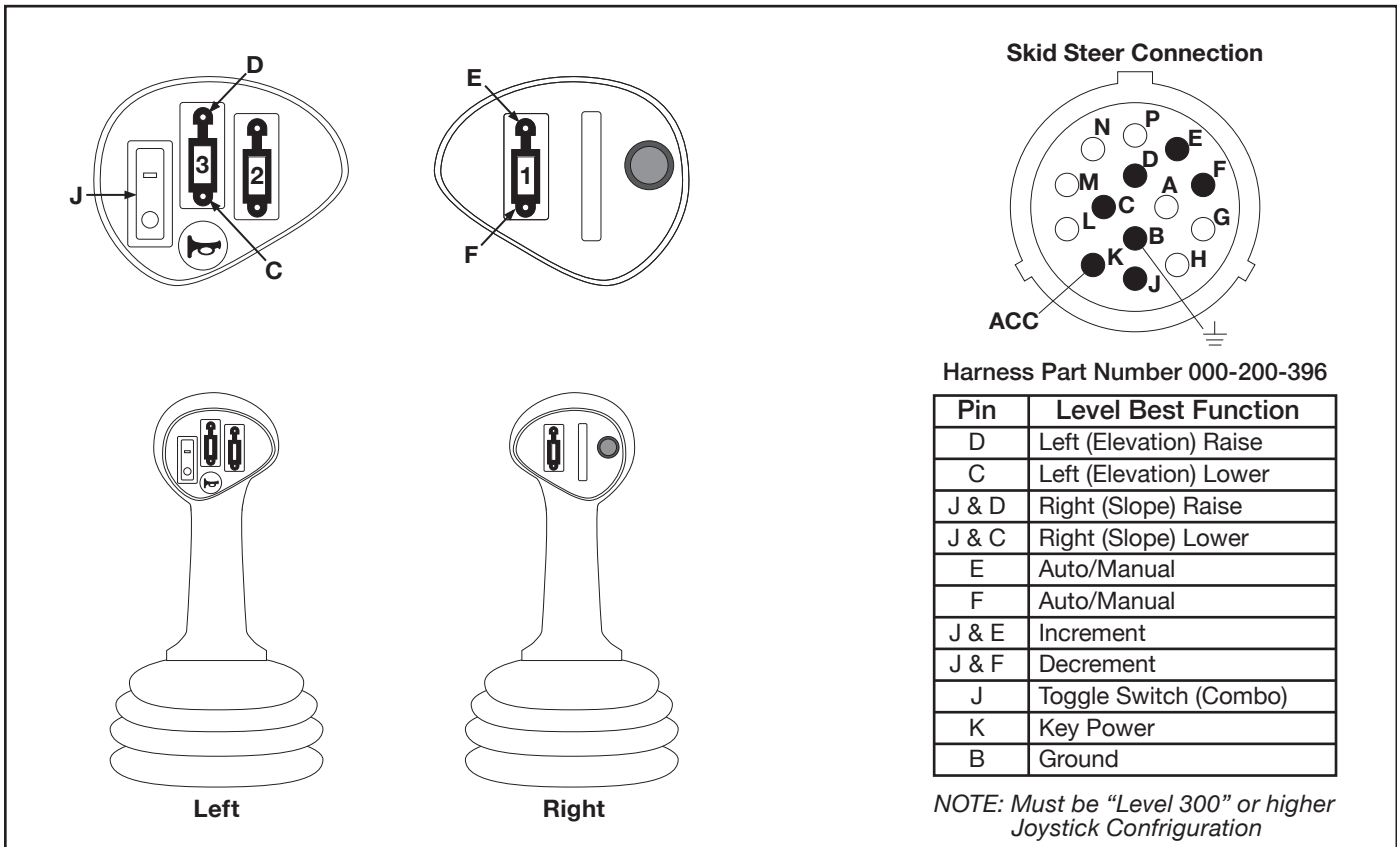


Figure 2-11. Case Joystick Functions

JOYSTICK CONTROLS

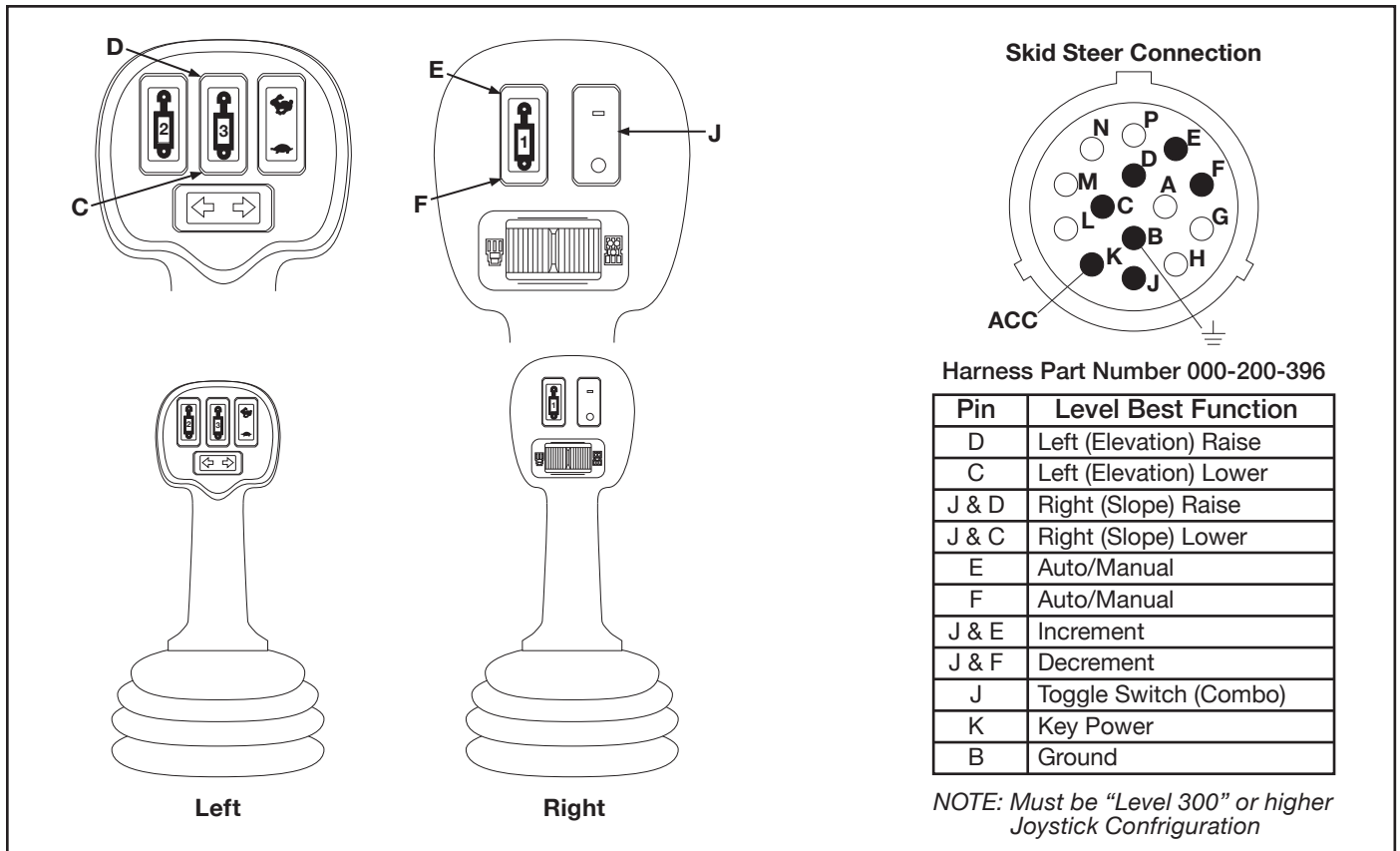


Figure 2-12. New Holland Joystick Functions

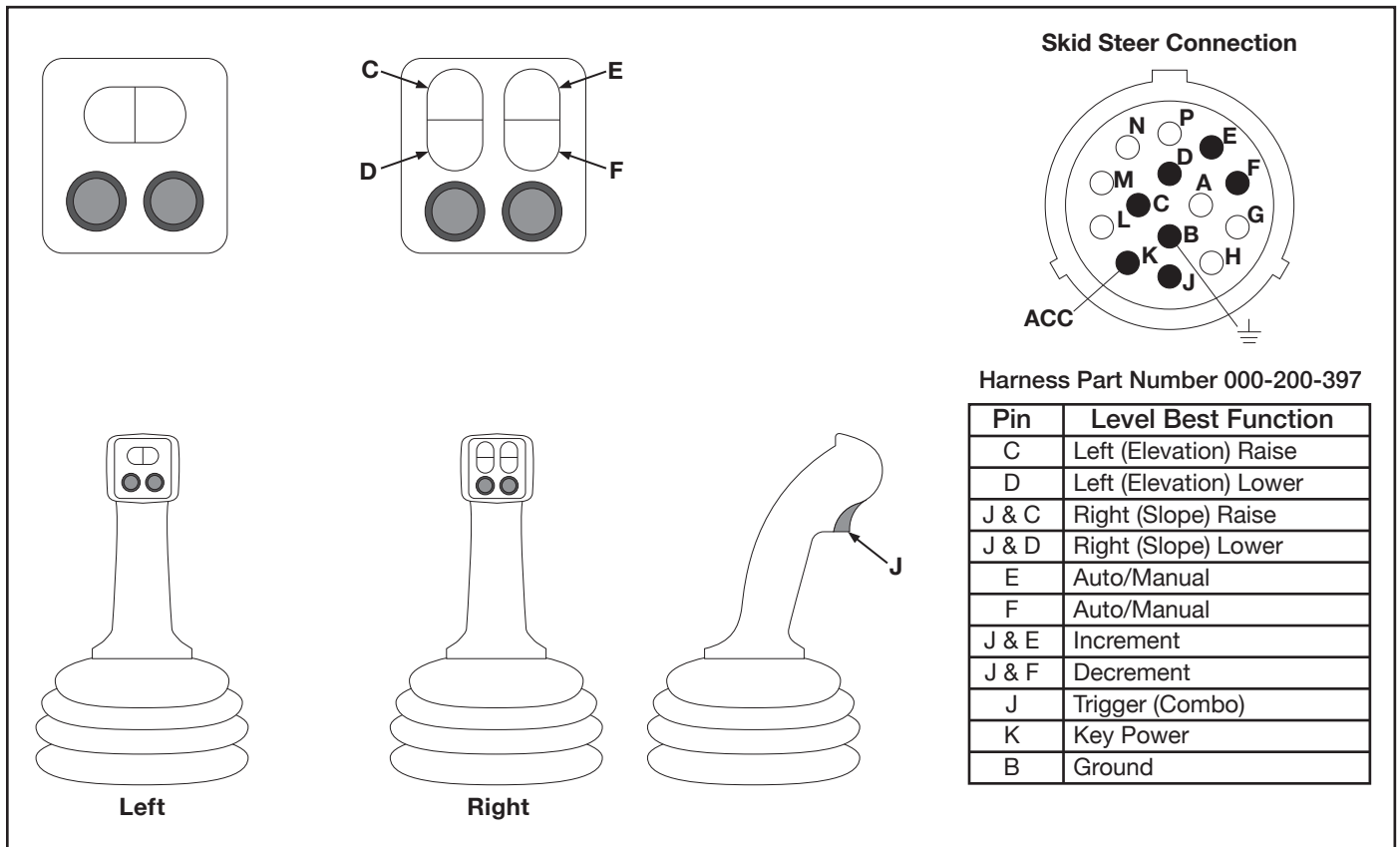


Figure 2-13. Takeuchi TL12/TL250 Joystick Functions

JOYSTICK CONTROLS

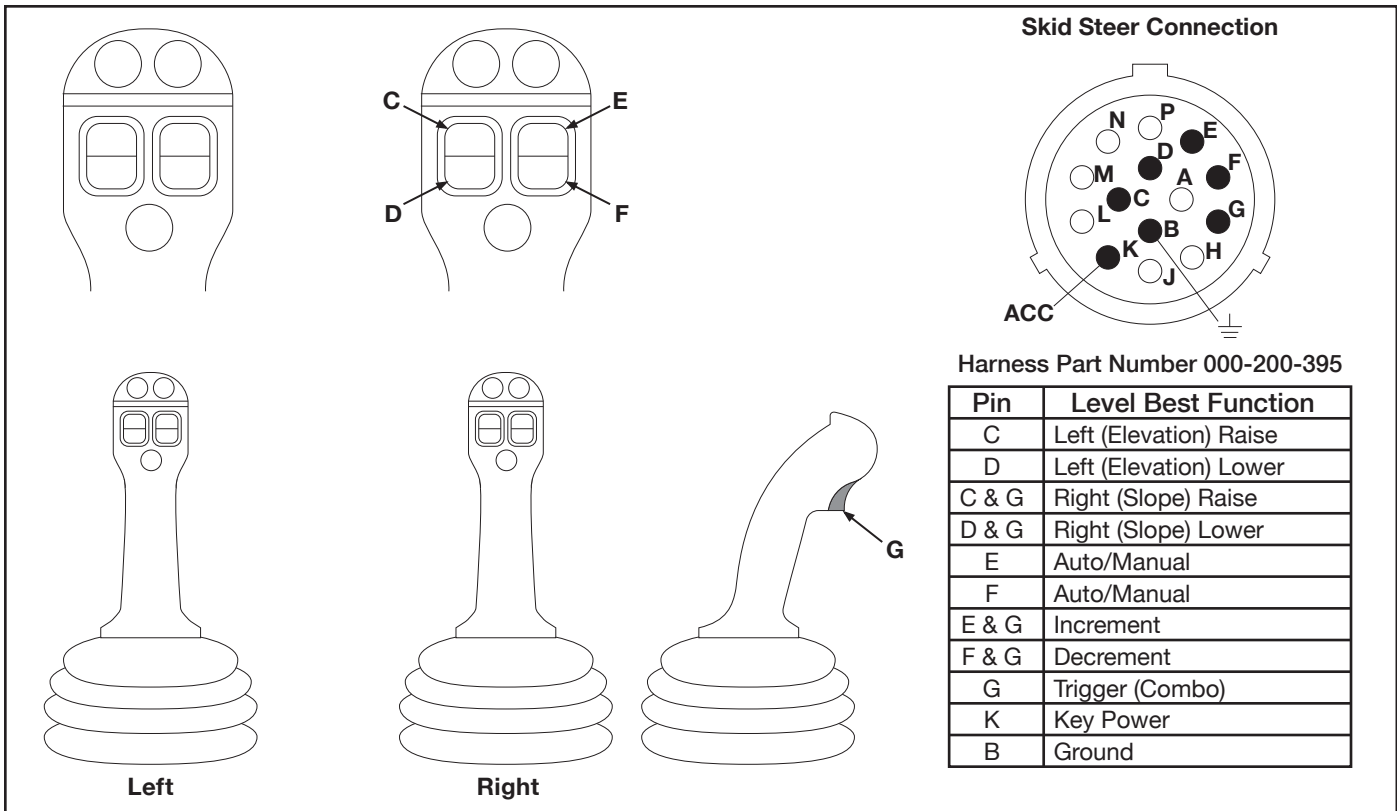


Figure 2-14. JCB/Volvo Joystick Functions

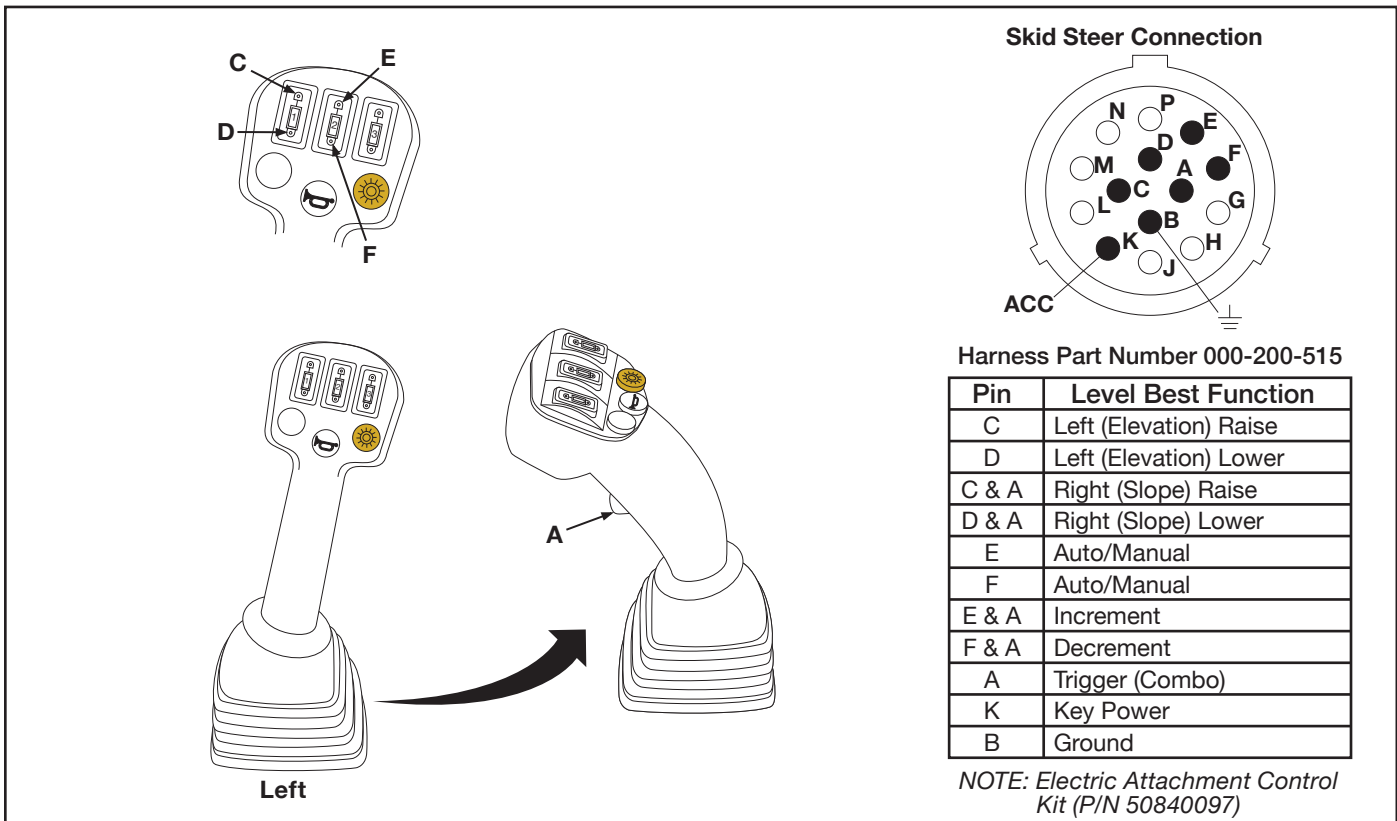


Figure 2-15. Mustang/Gehl Joystick Functions

NOTE: For any machine not listed, contact ATI for more information.

SPECIFICATIONS

Dimensions

Model	PDX-84
Width (Wings Closed)	87.75 in. (213 cm)
Overall Width (Wings Closed)	97.25 in. (247 cm)
Width (Wings Open)	125 in. (317 cm)
Total Length	71.25 in. (181 cm)
Weight	2040 lbs. (925 kg)

PDX Series Hydraulic Valve

Valve Type	4-Spool Proportional
Minimal Flow Rate	12 GPM (45.4 LPM)
Maximum Flow Rate	28 GPM (106 LPM)
Maximum Hydraulic Pressure	4060 psi (280 bar)

Level Best Hydraulics

Drydene Transall TDTO-4. SAE 10W-30 oil with ISO 4406 class 7 cleanliness (18/16/13).

Hydraulic systems and their components are in accordance with ISO 4413:2010, Hydraulic fluid power - General rules and safety requirements for systems and their components.

MAINTENANCE

The rugged and durable Level Best grading box is built to last, but as with all equipment, a few minutes of routine care, maintenance, and cleaning can extend the life of the system.

Storage and Transport

Tie-down points are built into the PDX behind the nose of the machine. Holes for D-rings are located on the sides of the Attachment Frame. Always ensure that your attachment is properly secured via the DOT protocols of your your area.

Most often the grading box and its hydraulic controls remain on the machine. However, the Automatic Control System components should be stored in a safe, protected place when not in use. Protect the cable connections by installing the covers supplied.

Cleaning

The VCM (Valve Control Module) is water resistant when the machine harness is fully seated. Do not submerge or direct high pressure spray at the VCM or any electrical connections.

Cables and Hoses

Check all cables and hoses regularly for signs of wear and damage. Keep cable connections clean and free from dirt and corrosion. If a cable has been damaged, do not attempt to repair. Incorrect or poor connections can cause damage to your Automatic Control System.

When applicable, check the hydraulic hoses. Look for areas where the hoses could rub against each other or another object as they expand and contract under pressure. Check the hydraulic fittings for tightness.

Machine

Check areas that affect the Automatic Control system function and accuracy, such as looseness or play in the cylinders or wear on the box's cutting edge. Looseness in the connection to the skid steer, such as in the adaptor plate, will cause inaccurate depth positioning.

Also check the skid steer routinely for wear to its components, such as loader pins and quick-attach linkage, ensuring it is operating properly.

Loader Hydraulics

Change the oil and filter per loader manufacturer recommendations to ensure proper function of your Level Best grading box.

SERVICE

If the Automatic Control System is not functioning properly, the first step is to determine the problem component. Use the Troubleshooting Chart to determine possible causes and remedies. The following test equipment is needed:

- Voltage/Ohm Meter
- Rotating Laser or Laser Simulator

Cable Wiring Diagrams and troubleshoot electrical problems contact your local Machine Control Dealer.

Shims and Slide Pads

The slope portion of the Level Best grading box rides on two non-greaseable oil-impregnated plastic retaining pads. These pads may wear over time and shims may need to be removed to ensure a tight fit. Periodically check the pads for signs of wear or gaps between the pad material and the metal plate. If required, remove the 1/16-inch shim (do not discard) by removing the bolts as shown. Do each side, one at a time, ensuring that the bolts are tight before moving to the other side.

Every Level Best attachment is tested before leaving the factory. But if, after a wear-in period, the slope portion still seems tight, contact ATI Group, LLC for additional shims if required.

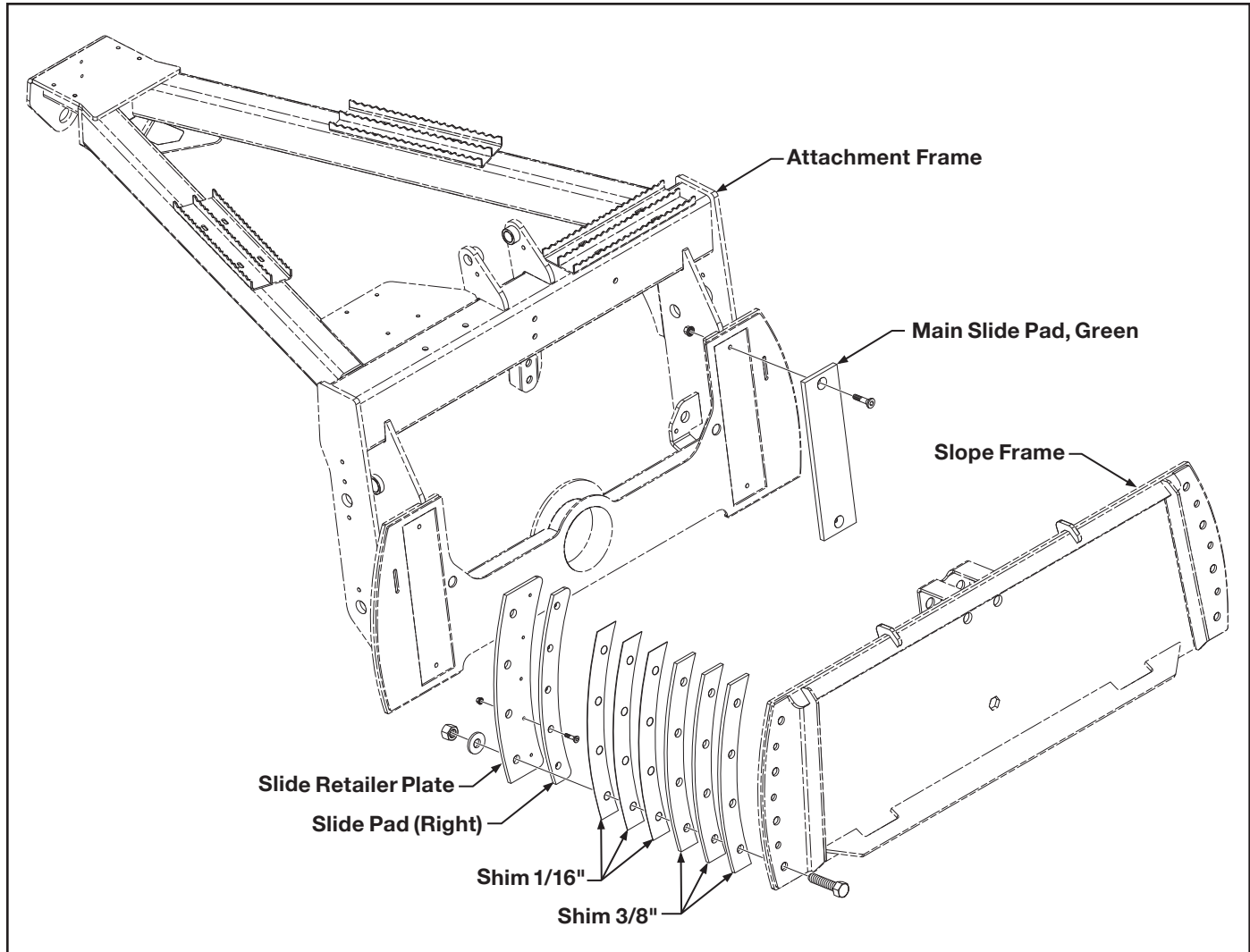


Figure 3-1. Shims and Slide Pads

HUB GREASING INSTRUCTIONS

The hub bearings on Level-Best products are pre-greased from factory for a long service life. However, it is strongly suggested that the axle and hub assembly be removed and disassembled annually to repack with grease and inspect the bearings for wear or damage.

The hubs now have an option to add grease through a zerk during routine maintenance. When greasing the hubs with this method please adhere to the following guidelines:

DO NOT OVER GREASE the bearings. One or two shots of grease every 100 operating hours is sufficient to keep the bearings lubricated. Forcing excessive amounts of grease into the hub will push the seals off their seats and expose the bearings to external dirt, use a Multi-Purpose grease.

Adding external grease is no replacement for proper maintenance practices. Annual tear-down and repacking of the bearings is still required to ensure a long life of the machine and minimal downtime.

NOTE: Check Hydraulic System Components for wear and/or leaks.

NOTE: Check and tighten all bolts and nuts for scraper blade and end blades, weekly.

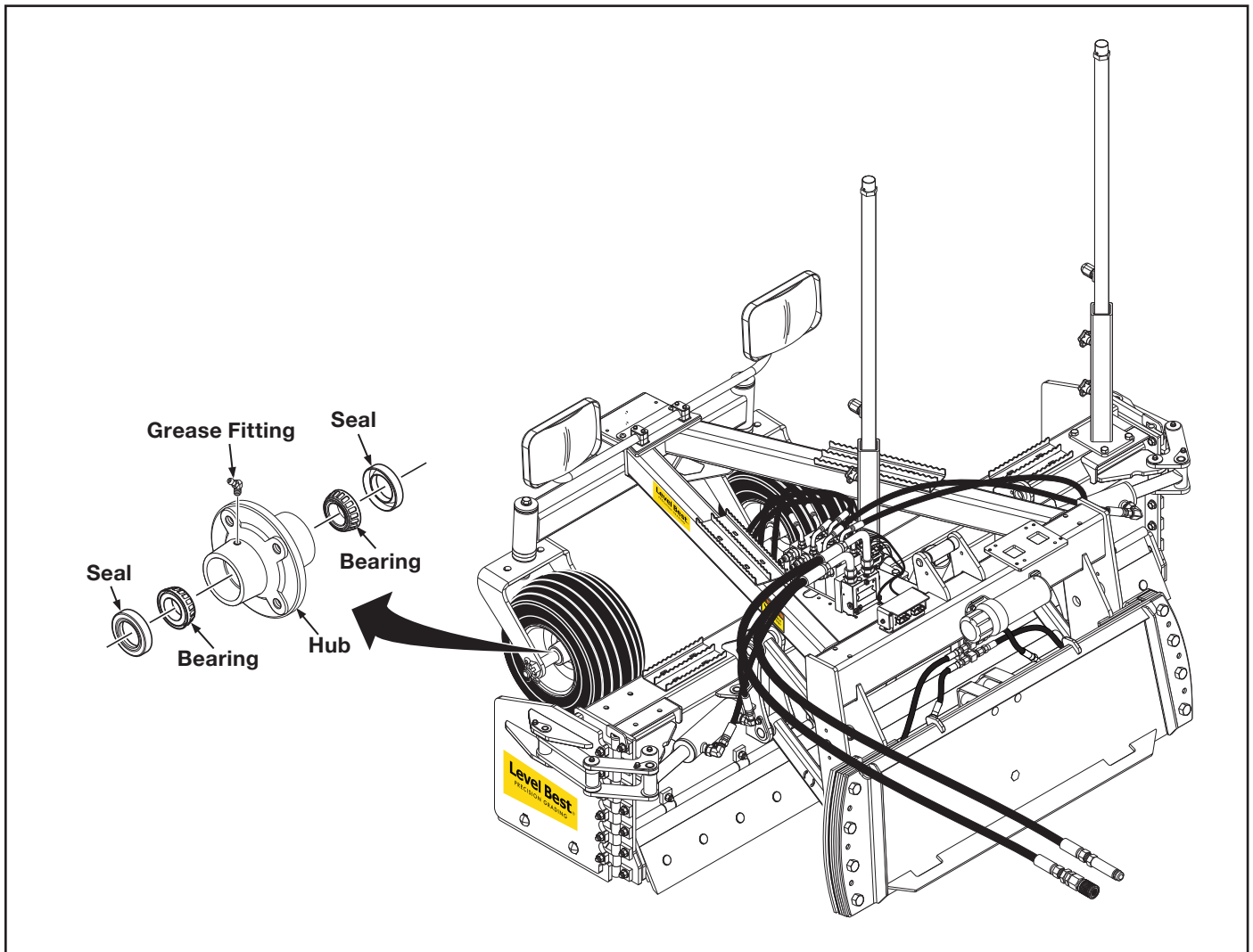


Figure 3-2. Lube and Maintenance

HYDRAULICS

Hydraulic Valve

The hydraulic valve is setup at the factory and should not need any adjustments. If there are any changes required, they should be done by an authorized factory technician.

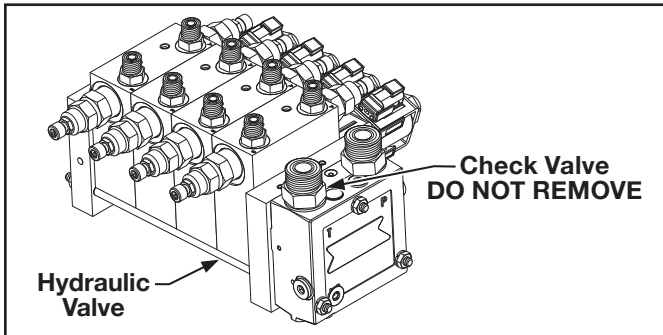


Figure 3-3. Hydraulic Valve

NOTE: Do not remove the check valve. Removal will void the warranty unless instructed by Level Best technical support.

Hydraulic Hose Connection

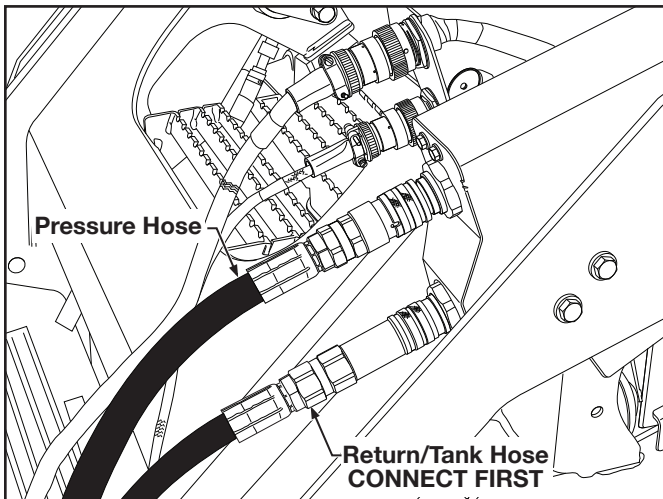



Figure 3-4. Hydraulic Hose Connections to Skid Steer

NOTE: Check the manufacture of your skid steer for the correct hose connections.

TROUBLESHOOTING

SYMPTOM	POTENTIAL CAUSE	REMEDY
Grading box has trouble staying on grade.	Rotating laser out of range.	Ensure laser receiver is within specified range of rotating laser.
	Laser beam being reflected.	Ensure rotating laser's light is not reflecting off outer surfaces (windows, windshields, mirrors, etc.) causing multiple readings by the laser receivers.
	Multiple laser beams.	Ensure that there are no other lasers operating on the job site or nearby.
	Laser deadband set too narrow.	Ensure the deadband (accuracy) setting is appropriate for rough grading.
	Travel speed is too fast for grade tolerance.	Slow down.
	Hydraulic response too quick.	Decrease the valve speed setting.
Grading box doesn't return all the way to on grade.	Valve offsets need to be raised.	Call dealer.
Grading box keeps driving past on grade, and bouncing.	Valve offsets need to be lowered.	Call dealer.
Grading box doesn't follow receiver or control panel grade display.	Valve cables are connected to wrong sides.	Check to make sure the valve cable branches are hooked up properly.

TROUBLESHOOTING

SYMPTOM	POTENTIAL CAUSE	REMEDY
Grading box does not raise or lower.	Control Panel not turned on.	Push the power switch.
	No hydraulic flow to grading box.	Ensure hydraulic control handle of skid steer is in correct position.
	Cables not connected correctly.	<p>Ensure auxiliary hydraulics are on or in continuous flow mode.</p> <p>Check valve cable, valve and valve coils for visible damage.v</p> <div style="background-color: orange; padding: 5px; border: 1px solid black; text-align: center;">  WARNING </div> <p>Be sure to stay clear of any moving parts of the grading box.</p> <p>If the grading box moves, refer to Electrical problems. If the grading box does not move, refer to Hydraulic problems.</p>
	Electrical problems.	<p>Check valve cable, valve and valve coils for visible damage.</p> <p>Use an ohmmeter to check cable for continuity. Contact ATI Group, LLC for pinouts.</p>
	Hydraulic problems.	<p>Confirm hydraulic flow through the manifold and returning to the power source through the “T” hose.</p> <p>Contact ATI Group, LLC for help troubleshooting the hydraulic manifold.</p>
Grading box moves in unexpected/erratic direction.	Solenoid cable installed incorrectly.	Verify valve cable is pugged in correctly.

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Serial Number Information

It is very important that the correct serial number is provided when ordering parts. The serial number plate is located on the main frame. Please mark the model and serial number of your Para-Level Grading Box in the space provided below in case the plate on your Para-Level Grading Box gets lost or damaged.

Model..... **Serial Number**

Dealer Name **Dealer Phone Number**

Where To Get Parts And Service

When replacement parts and service are required, ATI Group, LLC recommends returning to the dealer from which the product or optional kit was purchased. By going to the dealer, you are dealing with people that understand and know ATI products. Our dealers have the experience servicing these machines and stock the most common parts required to keep your equipment in top working condition.

How To Order Parts

Parts lists contained in this book have been prepared to help you when ordering spare and/or replacement parts. Your order will be filled promptly and accurately when the following information is provided:

1. Model and serial number of the unit. (This specifically identifies the equipment you have and permits us to verify the part numbers in your order.)
2. The parts list page number and catalog number. Include catalog revision number, if applicable.
3. The **Item** number for each part. **Item** numbers on the parts list page correspond with the numbers shown on the illustration.
4. **Part Number** as it appears in the parts list. In most cases this will be a nine-digit number; for example: 315-005-000.
5. The **Description** for the part as it appears on the parts list page.

When a complete assembly is needed, use the assembly number given in the parts list. If no assembly number is given, order by main assembly title and list only the item numbers you want. For example: "Wheel Frame Assembly per 315-509-000, Items 2 through 8, inclusive".

The part ordered may have a new part number, or the part may have been replaced by a newer design with a different part number. In these cases your acknowledgement, shipping papers and invoices will be written listing the current part number first; the old part number you referred to will follow the part description.

Our purpose in doing this is to tell you that the parts are fully interchangeable. This will avoid any unnecessary correspondence or delay in processing your order. We suggest that you add any new number to your parts lists for future use.

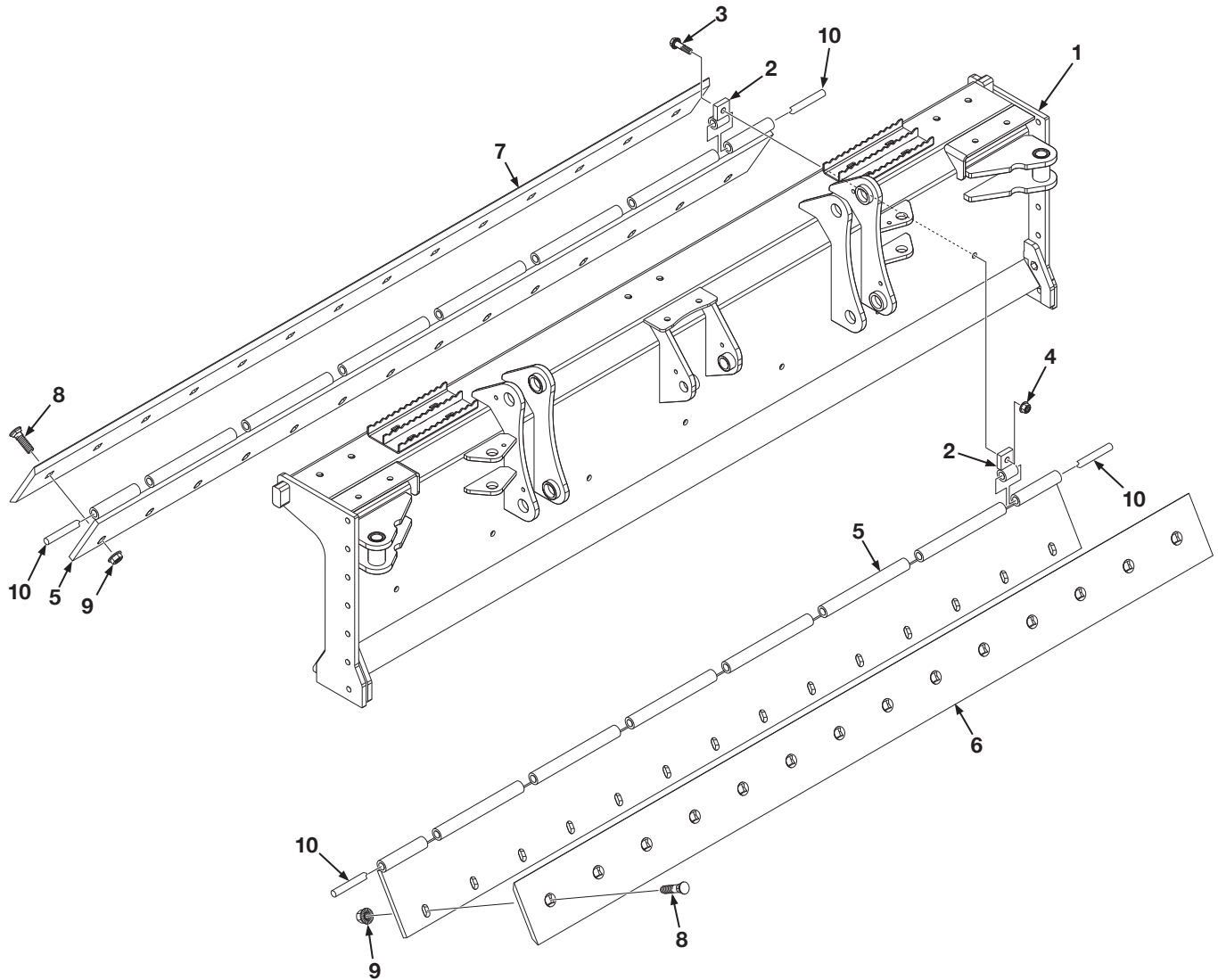
NOTE: ATI Group, LLC reserves the right to discontinue models at any time, change specifications, and improve design without notice and without incurring obligation on goods previously purchased and to discontinue supplying any part listed, when the demand does not warrant production.

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PARTS ILLUSTRATIONS

Figure 5-1. Main Frame and Cutting Edges



PARTS ILLUSTRATIONS

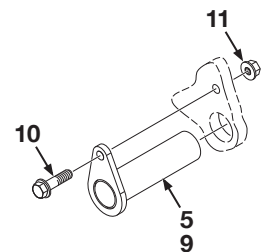
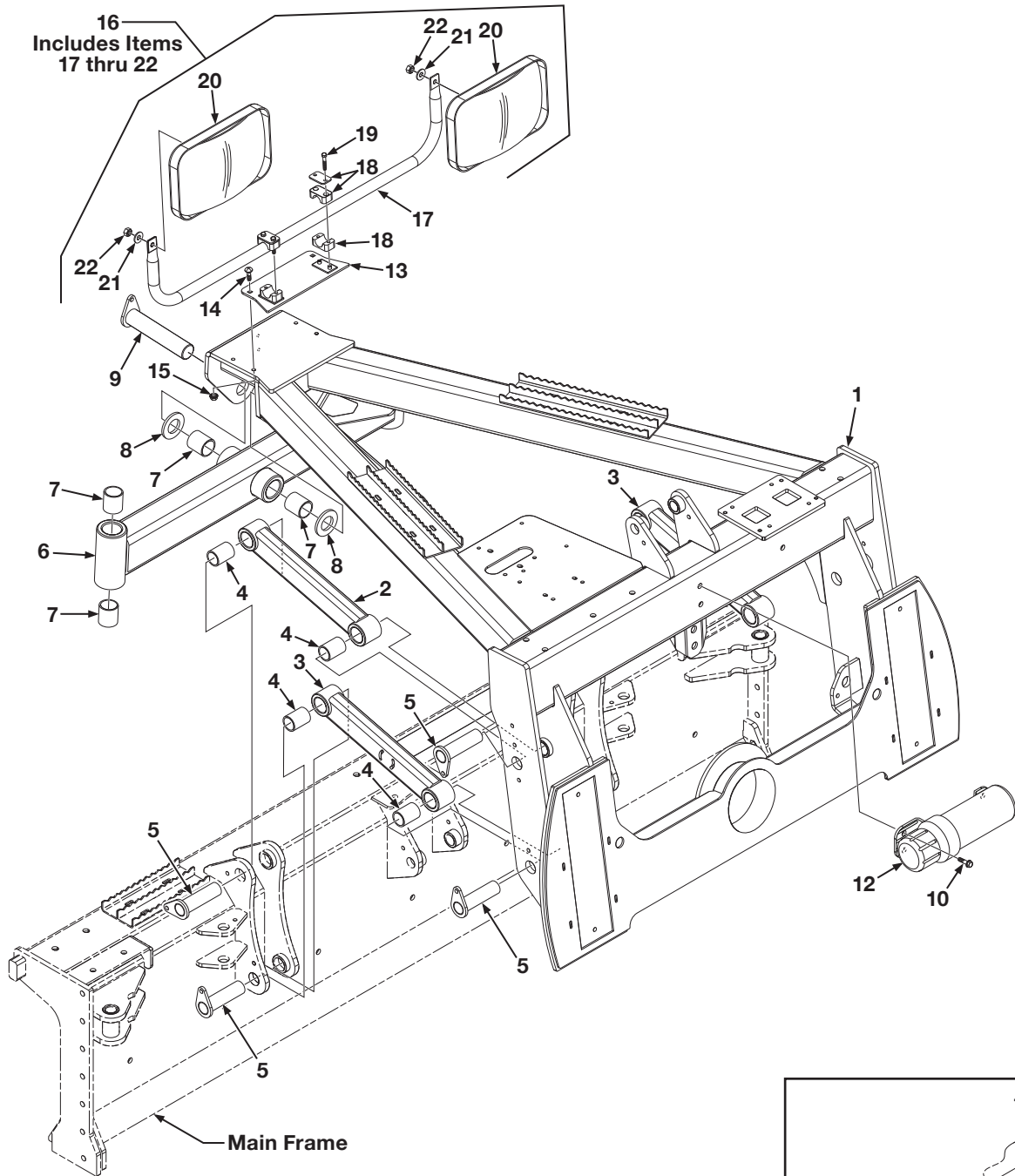
Figure 5-1. Main Frame and Cutting Edges

Item	Part No.	Qty	Description
1	312-000-100	1	Main Frame, PDX, S-G Black
2	315-561-010	14	Hinge, Flip Edge, Para-Level, Cast, Plated,
3	000-150-376	7	Bolt, Serrated Flange, 1/2"-13 x 2" Long
4	000-158-111	7	Nut, Serrated Flange, 1/2"-13UNC
5	315-564-100	2	Mount Assembly, Blade, Hinged, 1/2" x 6-1/2" x 84"
6	000-190-077	1	Edge, Cut, Bolt-On, DBF, 1/2" x 6" x 84", Flat Black
7	000-190-247	1	Edge, Cutting, Front, S-G Black
8	000-150-258	28	Bolt, Plow, 5/8"-11UNC x 1-3/4" Long
9	000-158-142	28	Nut, Serrated Flange, 5/8"-11UNC
10	000-161-128	2	Pin, Hinge, 5/8" OD x 84" Long

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PARTS ILLUSTRATIONS

Figure 5-2. Attachment Frame and Related Parts



**Typical Pivot and Link
Pins Installation
9 Places**

PARTS ILLUSTRATIONS

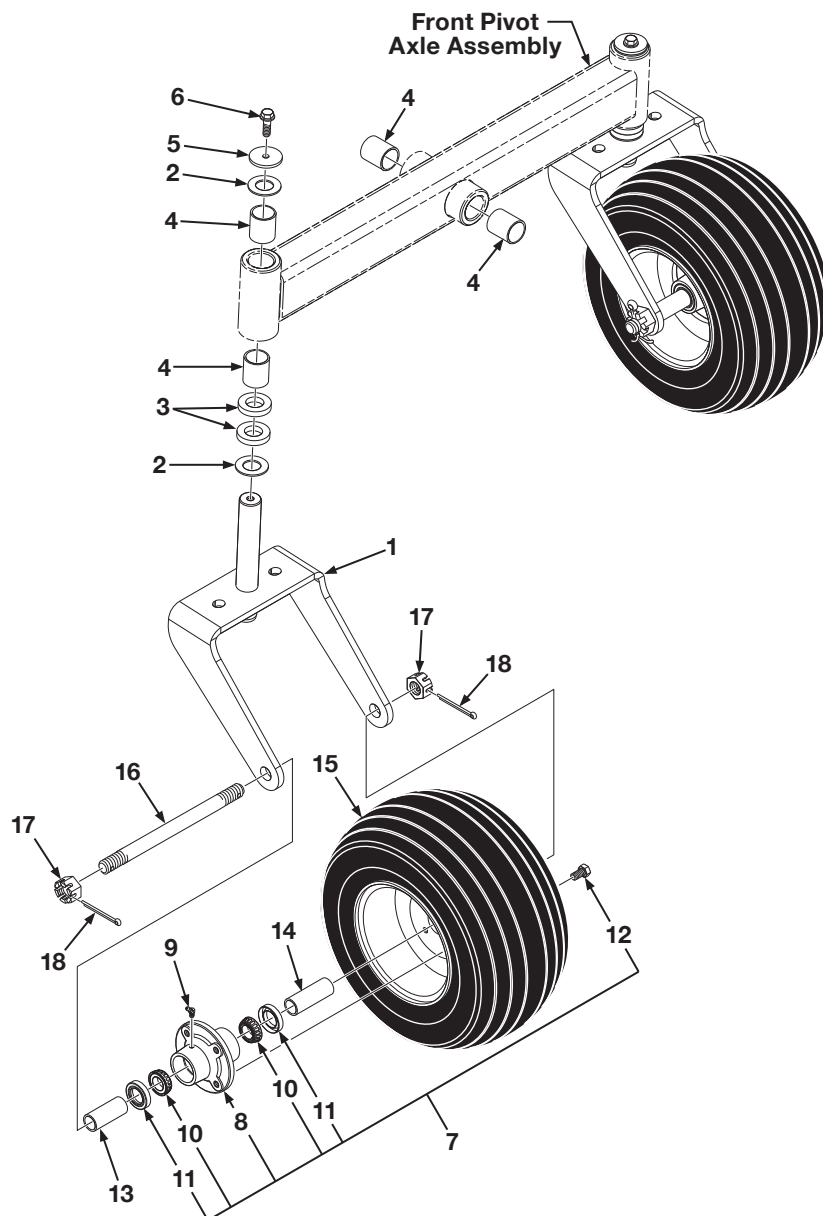
Figure 5-2. Attachment Frame and Related Parts

Item	Part No.	Qty	Description
1	315-631-000	1	Frame, Attachment, PD Grader Box, S-G Black
2	315-621-100	2	Link, Lift, Box, Includes Item 4
3	315-621-000	1	Link, Lift, Torsion, Box, Includes Item 4
4	000-176-183	8	Bushing, Link, 1-1/2" OD x 1-1/4" ID x 2" Long
5	000-161-165	8	Pin, Link, 1-1/4" Dia x 4-5/8" Long
6	315-568-000	1	Axle Assembly, Front, Includes Item 7
7	000-176-171	6	Bushing, Wheel Frame, 1-3/4" OD x 1-1/2" ID x 1-1/2" Long
8	000-155-013	2	Bushing, Washer, 2-3/4" OD x 1-1/2" ID x 10 Gauge
9	000-161-166	1	Pin, Pivot, 1-1/2" Dia. x 7-3/4" Long
10	000-150-078	12	Bolt, Serrated Flange, 5/16"-18UNC x 1" Long
11	000-158-223	9	Nut, Lock, Flange, Nylon-Insert, 5/16"-18UNC
12	001-001-083	1	Canister, Operators Manual
13	001-001-195	1	Mount, Dual Mirror, Bolt-On, Black
14	000-150-372	2	Bolt, Carriage, 5/16"-18UNC x 1" Long
15	000-158-223	2	Nut, Serrated Flange, 5/16"-18UNC
16	312-000-200	1	Kit: Mirror, Dual, Bolt-On, Includes Items 17 thru 22
17	316-001-727	1	Bracket, Tube, Bent, Mirror
18	001-001-177	2	Clamp Assy, Mirror Bracket, GB/PD, 1" clamp, Includes Item 19
19	LP	4	Bolt, Hex Head, 1/4"-20UNC x 1-1/2" Long
20	001-001-179	2	Mirror, Safety, 8" x 12", W/12" Radius
21	000-155-032	2	Washer, Flat, 3/8" SAE
22	000-158-084	2	Nut, Hex, Nylon Lock, 3/8"-16UNC

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PARTS ILLUSTRATIONS

Figure 5-3. Caster Fork and Wheel



PARTS ILLUSTRATIONS

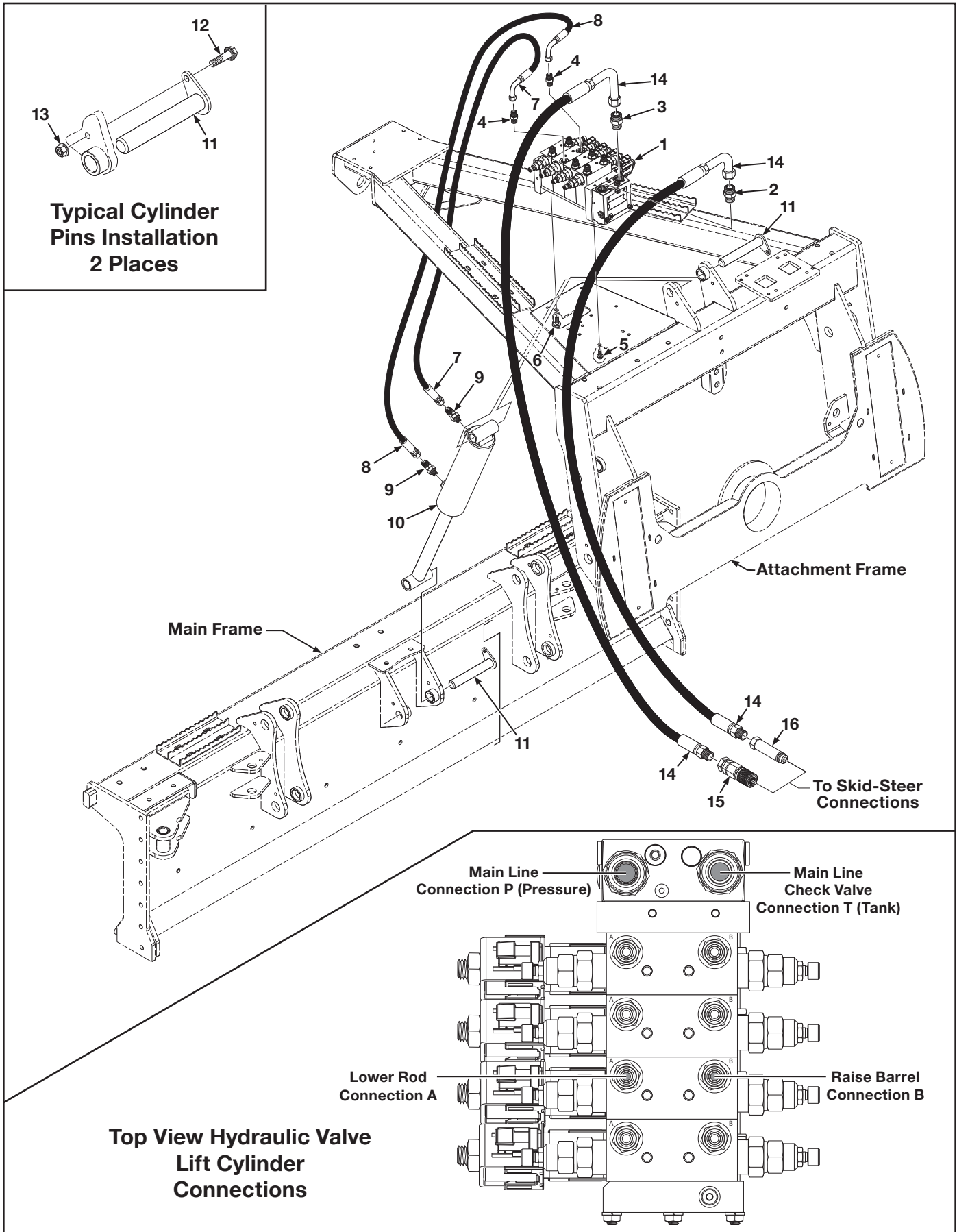
Figure 5-3. Caster Fork and Wheel

Item	Part No.	Qty	Description
1	315-548-010	2	Fork, Caster, Extended
2	000-155-013	4	Bushing, Washer, 2-3/4" OD x 1-1/2" ID x 10 Gauge
3	315-568-005	4	Spacer, Caster, 2-3/4" OD x 1-1/2" ID x 1/2" Thick
4	000-176-171	6	Bushing, Wheel Frame, 1-3/4" OD x 1-1/2" ID x 1-1/2" Long
5	000-155-004	2	Washer, Flat, 2-3/4" OD x 17/32" ID x 1/4" Thick
6	000-150-375	2	Bolt, Serrated Flange, 1/2"-13UNC x 1-1/4" Long Blue Loctite
7	001-001-069	2	Hub Assembly, Includes Items 8 thru 12
8	001-001-074	1	Hub, Wheel, With Outer Race, Includes Item 9
9	NSS	1	Fitting, Grease, 65°
10	000-176-184	2	Bearing, Roller, Tapered, 1" Dia. Bore
11	000-166-457	2	Seal, Grease, 2" OD x 1-1/4" ID
12	000-150-218	4	Bolt, Lug, 1/2"-20UNF x 1-1/4" Long Orange Loctite
13	315-598-000	2	Spacer, Wheel Bearing, Long
14	315-597-000	2	Spacer, Wheel Bearing, Short
15	001-001-057	2	Wheel/Tire, Foam-Filled, 18.5/8.50-8
16	315-553-000	2	Axle, Caster, 1" -14UNF x 12-1/2" Long
17	000-158-193	4	Nut, Castle, 1"-14UNF
18	000-161-078	4	Pin, Cotter, 1/8" Dia. x 2" Long

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PARTS ILLUSTRATIONS

Figure 5-4. Hydraulics & Related Parts



PARTS ILLUSTRATIONS

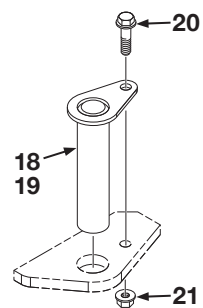
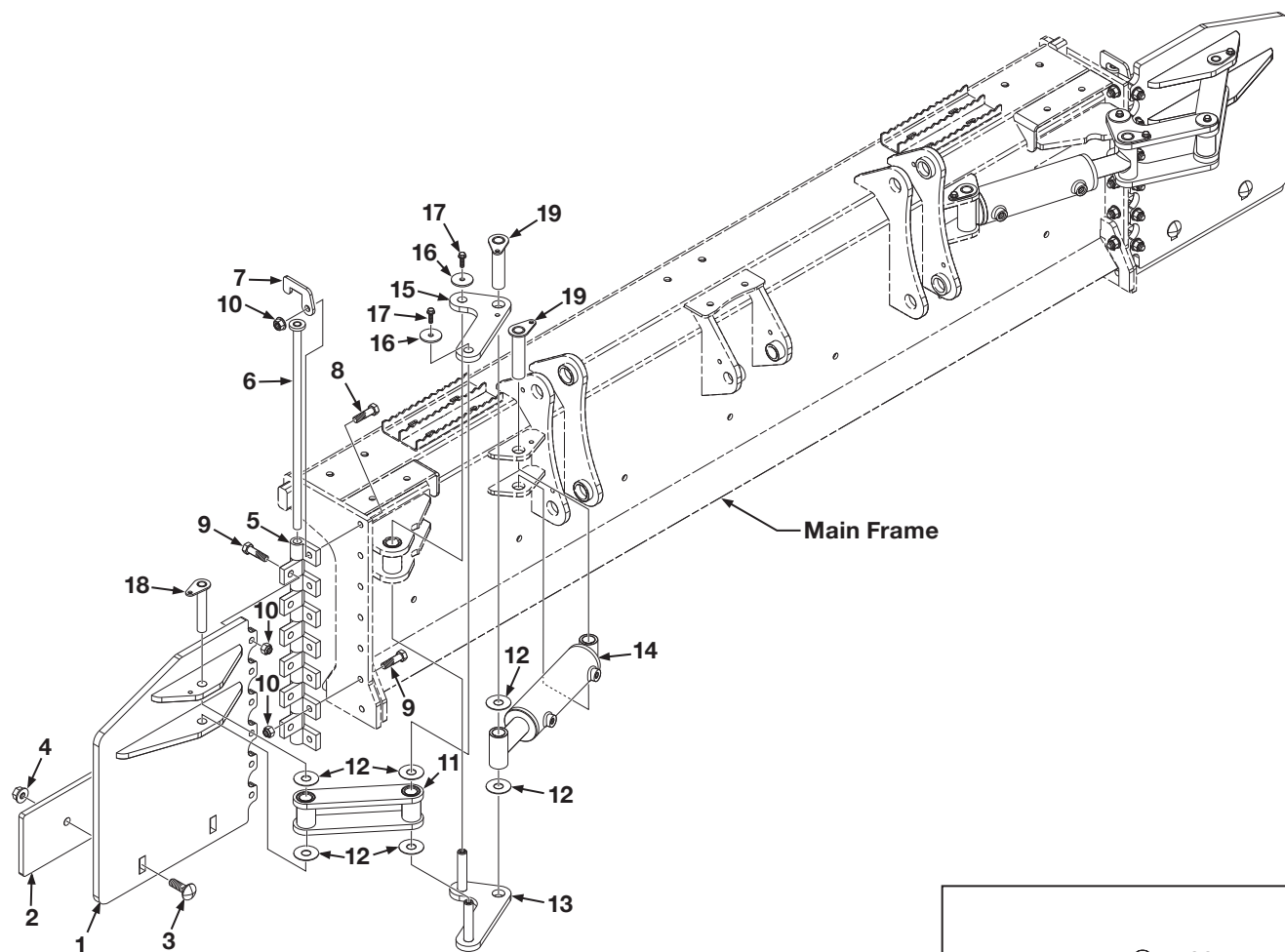
Figure 5-4. Hydraulics & Related Parts

Item	Part No.	Qty	Description
1	000-166-868	1	Valve Assembly, Hydraulic, MVB10, Includes Items 2 thru 4
2	000-166-824	1	Valve, Check, 12OFS x 12MB, (DO NOT REMOVE FROM ITEM 1)
3	000-166-694	1	Fitting, Adapter, 12OFS x 12MB
4	000-166-685	2	Fitting, Adapter, 6OFS x 6MB
5	000-150-119	1	Bolt, Serrated Flange, 3/8"-16UNC x 3/4" Long
6	000-150-074	2	Bolt, Serrated Flange, 5/16"-18UNC x 3/4" Long
7	000-166-857	1	Hose Assembly, 3/8" Dia x 29" L x 6FOFX x 6FOFX90, 3,000 PSI
8	000-166-857	1	Hose Assembly, 3/8" Dia x 29" L x 6FOFX x 6FOFX90, 3,000 PSI
9	000-166-697	2	Elbow, 90°, 6OFS x 6MB
10	000-166-690	1	Cylinder, Hydraulic, 3" Bore x 8" Stroke
11	000-161-169	2	Pin, Pivot, 1" Dia. x 6-7/8" Long
12	000-150-078	2	Bolt, Serrated Flange, 5/16"-18UNC x 1" Long
13	000-158-223	2	Nut, Lock, Flange, Nylon-Insert, 5/16"-18UNC
14	000-166-917	2	Hose Assembly, 5/8" Dia x 60" L x 10MB x 12FOFX90
15	000-166-860	1	Coupler, Quick, FF, Female, (Pressure Line)
16	000-166-859	1	Coupler, Quick, FF, Male, CUP, (Tank Line)
			BH-Bulkhead MP-Male Pipe FP-Female Pipe FPX-Female Pipe Swivel FFX- Female O-Ring Flat Face Swivel MB-Male O-Ring Boss FB-Female O-Ring Boss MJ-Male JIC FJ-Female JIC FJX-Female JIC Swivel OFS-O-Ring Face Seal OFSBH-O-Ring Face Seal Bulkhead

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PARTS ILLUSTRATIONS

Figure 5-5. Wings and Related Parts



Typical Pivot and Link
Pins Installation
6 Places

PARTS ILLUSTRATIONS

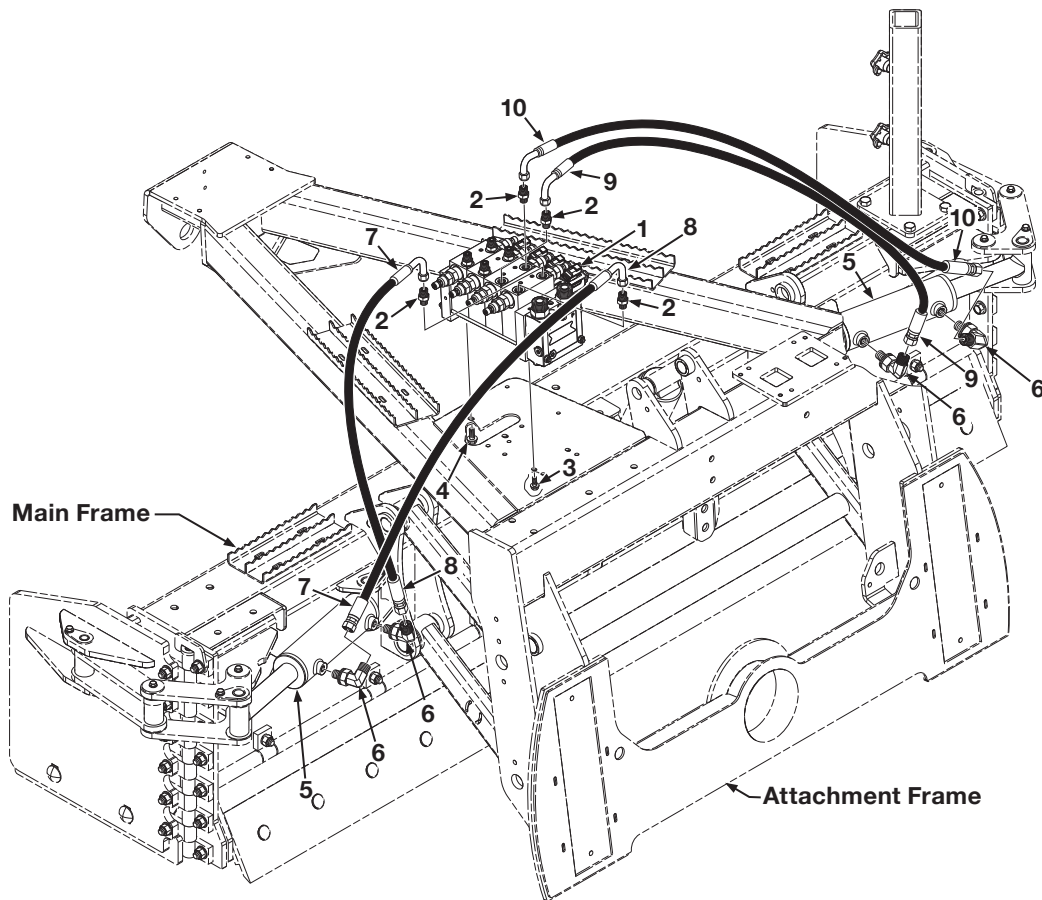
Figure 5-5. Wings and Related Parts

Item	Part No.	Qty	Description
1	312-000-165	1	Wing, PDX, Left, S-G Black
	312-000-160	1	Wing, PDX, Right, S-G Black
2	000-190-244	2	Edge, Cutting, PDX Wing, S-G Black
3	000-150-253	4	Bolt, Carriage, 5/8"-11UNC x 1-3/4"
4	000-158-142	4	Nut, Serrated Flange, 5/8"-11UNC
5	315-561-010	26	Hinge, Flip Edge, Para-Level, Cast, Plated
6	000-161-239	2	Hinge Pin, PDX Wing, Plated
7	312-000-109	2	Retainer, Hinge Pin, PDX Main Frame, Znc Plt
8	000-150-185	2	Bolt, Hex Head, 1/2"-13UNC x 2" (Top Bolt)
9	000-150-182	24	Bolt, Hex Head, 1/2"-13UNC x 1-3/4"
10	000-158-113	26	Nut, Lock, Nylon-Insert, 1/2"-13UNC
11	312-000-170	2	Link, PDX, Straight, Plated
12	000-155-127	AR	Washer, 2" OD x 3/4" ID x 16 Ga
13	312-000-180	1	Link, PDX, Angled, Left, Plated
	312-000-174	1	Link, PDX, Angled, Right, Plated
14	000-166-680	2	Cylinder, Wld, 3" Bore x 8" Stroke
15	312-000-173	2	Link Plate, PDX, Angled, w/ Keeper, Plated
16	000-155-124	4	Washer, Flat, 1-3/4" OD x 3/8" ID x 10 Ga,
17	000-150-119	4	Bolt, Serrated Flange, 3/8"-16UNC x 3/4"
18	000-161-245	2	Pin, 3/4" Dia x 4-5/8" OAL, w/Tab
19	000-161-168	4	Pin, 1" Dia x 4-5/8" OAL, w/Tab
20	000-150-078	4	Bolt, Serrated Flange, 5/16"-18UNC x 1" Long
21	000-158-223	4	Nut, Lock, Flange, Nylon-Insert, 5/16"-18UNC

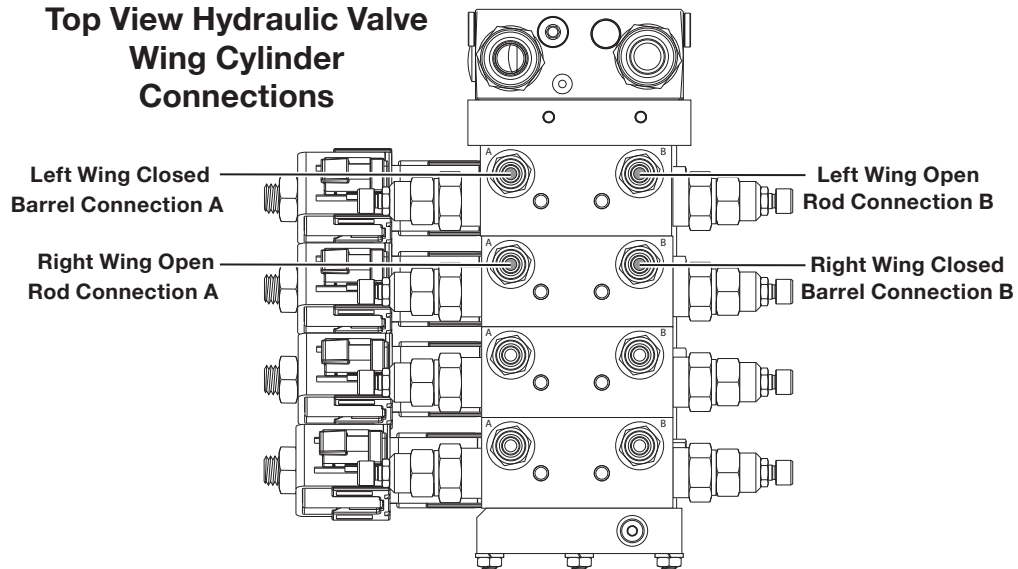
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PARTS ILLUSTRATIONS

Figure 5-6. Hydraulics Wings and Related Parts



Top View Hydraulic Valve Wing Cylinder Connections



PARTS ILLUSTRATIONS

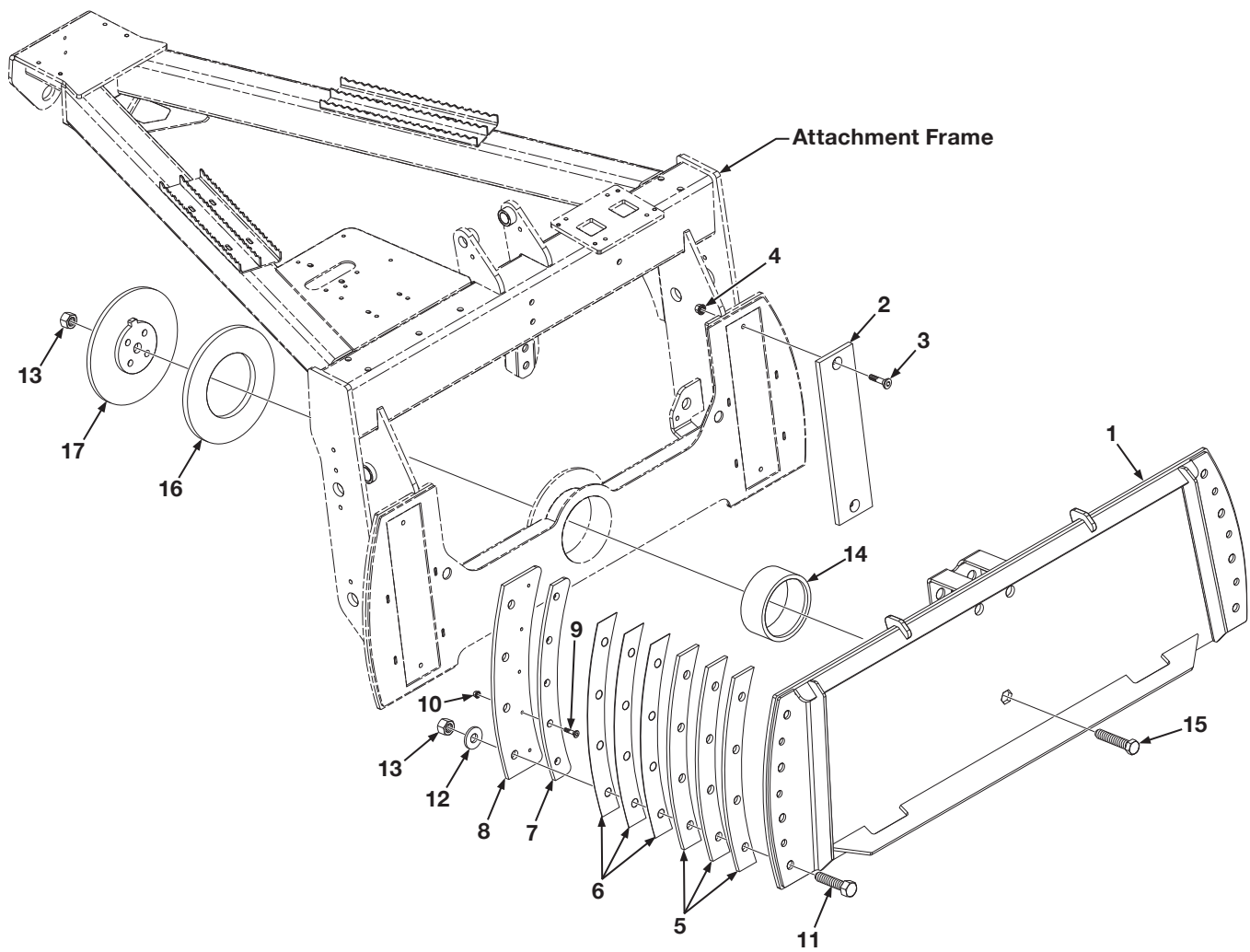
Figure 5-6. Hydraulics Wings and Related Parts

Item	Part No.	Qty	Description
1	000-166-868	1	Valve Assembly, Hydraulic, MVB10, Includes Items 2
2	000-166-685	4	Fitting, Adapter, 6OFS x 6MB
3	000-150-119	1	Bolt, Serrated Flange, 3/8"-16UNC x 3/4" Long
4	000-150-074	2	Bolt, Serrated Flange, 5/16"-18UNC x 3/4" Long
5	000-166-680	2	Cylinder, Hydraulic, 2-1/2" Bore x 6" Stroke
6	000-166-697	4	Elbow, 90°, 6OFS x 6MB, FS6801-06-06
7	000-166-768	1	Hose Assembly, 3/8" Dia x 40" L x 6FOFX x 6FOFX90, 3,000 PSI
8	000-166-768	1	Hose Assembly, 3/8" Dia x 40" L x 6FOFX x 6FOFX90, 3,000 PSI
9	000-166-898	1	Hose Assembly, 3/8" Dia x 58" L x 6FOFX x 6FOFX90, 3,000 PSI
10	000-166-898	1	Hose Assembly, 3/8" Dia x 58" L x 6FOFX x 6FOFX90, 3,000 PSI

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PARTS ILLUSTRATIONS

Figure 5-7. Slope Frame, Shims and Related Parts



PARTS ILLUSTRATIONS

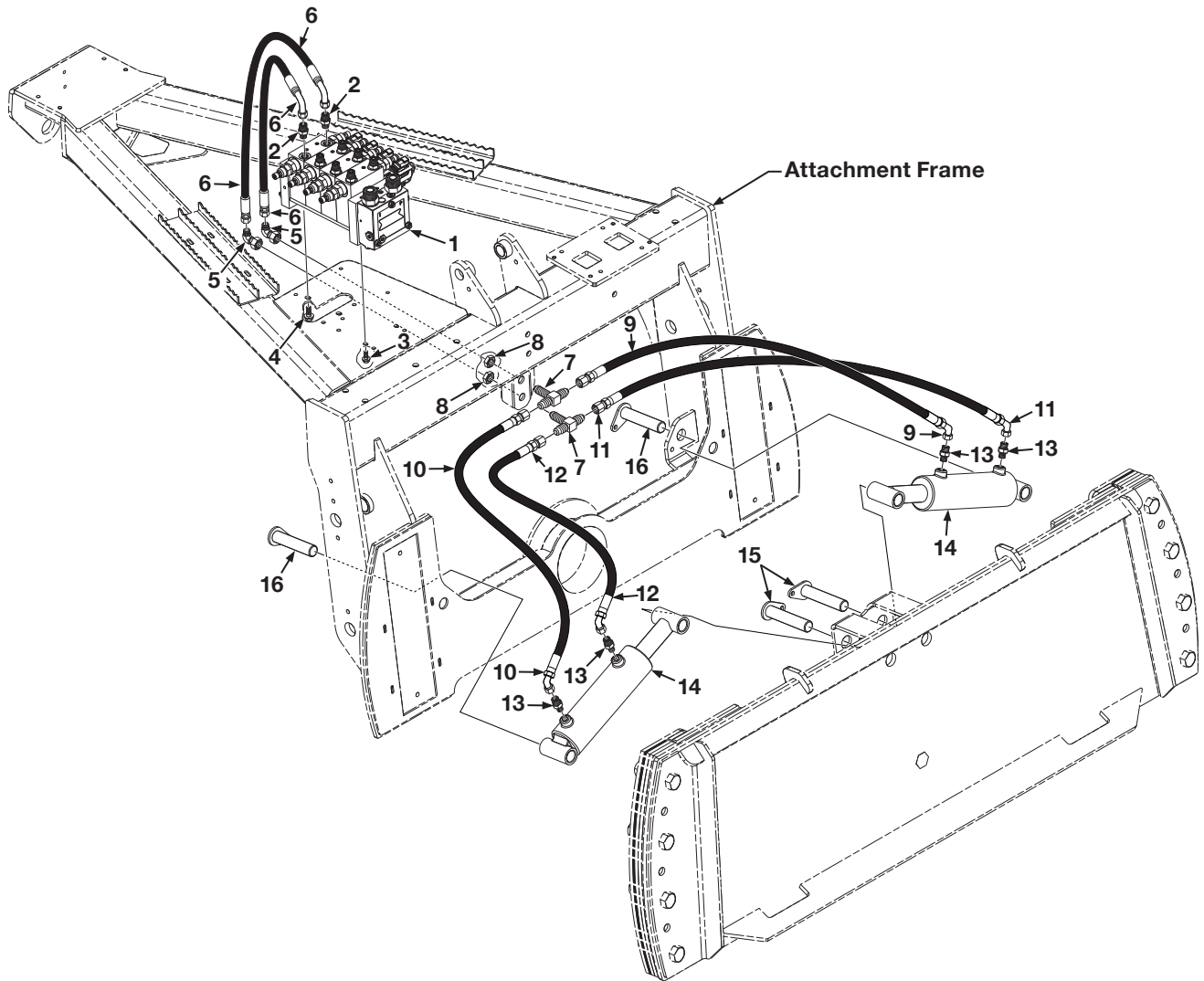
Figure 5-7. Slope Frame, Shims and Related Parts

Item	Part No.	Qty	Description
1	315-632-000	1	Frame, Slope
2	100-094-007	2	Pad, Main Slide, Green
3	000-150-130	4	Screw, Flat Head, Socket, 3/8"-16UNC x 1-1/4" Long
4	000-158-217	4	Nut, Serrated Flange, 3/8"-16UNC
5	100-094-002	AR	Shim, Retainer, 3/8"
6	100-094-003	AR	Shim, Retainer, 1/16"
7	100-094-005	1	Pad, Slide, Right (Shown)
	100-094-004	1	Pad, Slide, Left (Not Shown)
8	100-094-001	2	Plate, Slide Retainer
9	000-150-066	10	Screw, Flat Head, Socket, 1/4"-20UNC x 1" Long
10	000-158-048	10	Nut, Serrated Flange, 1/4"-20UNC
11	000-150-333	8	Bolt, Hex Head, 3/4"-16UNF x 3-1/2" Long
12	000-155-091	8	Washer, Flat, 3/4"
13	000-158-182	9	Nut, Hex, Nylon Lock, 3/4"-16UNF, (250 ft-lbs)
14	000-176-260	1	Bushing, Nylon, 5-1/2" OD x 5" ID x 2" Long
15	000-150-337	1	Bolt, Hex Head, 3/4"-16UNF x 5" Long
16	100-192-008	1	Disk, Slide
17	100-192-001	1	Cap, Pivot

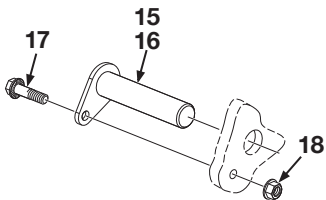
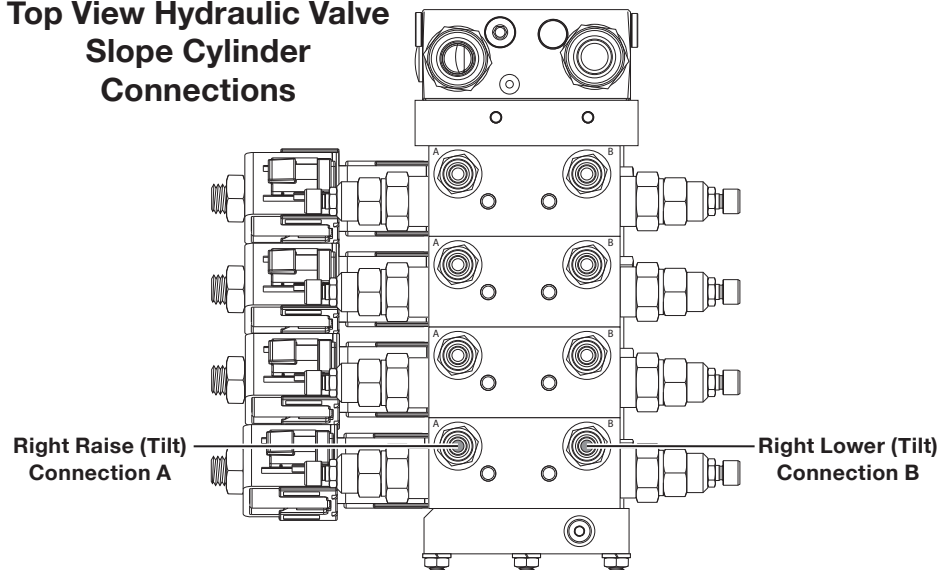
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PARTS ILLUSTRATIONS

Figure 5-8. Hydraulics Slope Cylinder, Fittings and Related Parts



**Top View Hydraulic Valve
Slope Cylinder
Connections**



**Typical Cylinder
Pins Installation
4 Places**

PARTS ILLUSTRATIONS

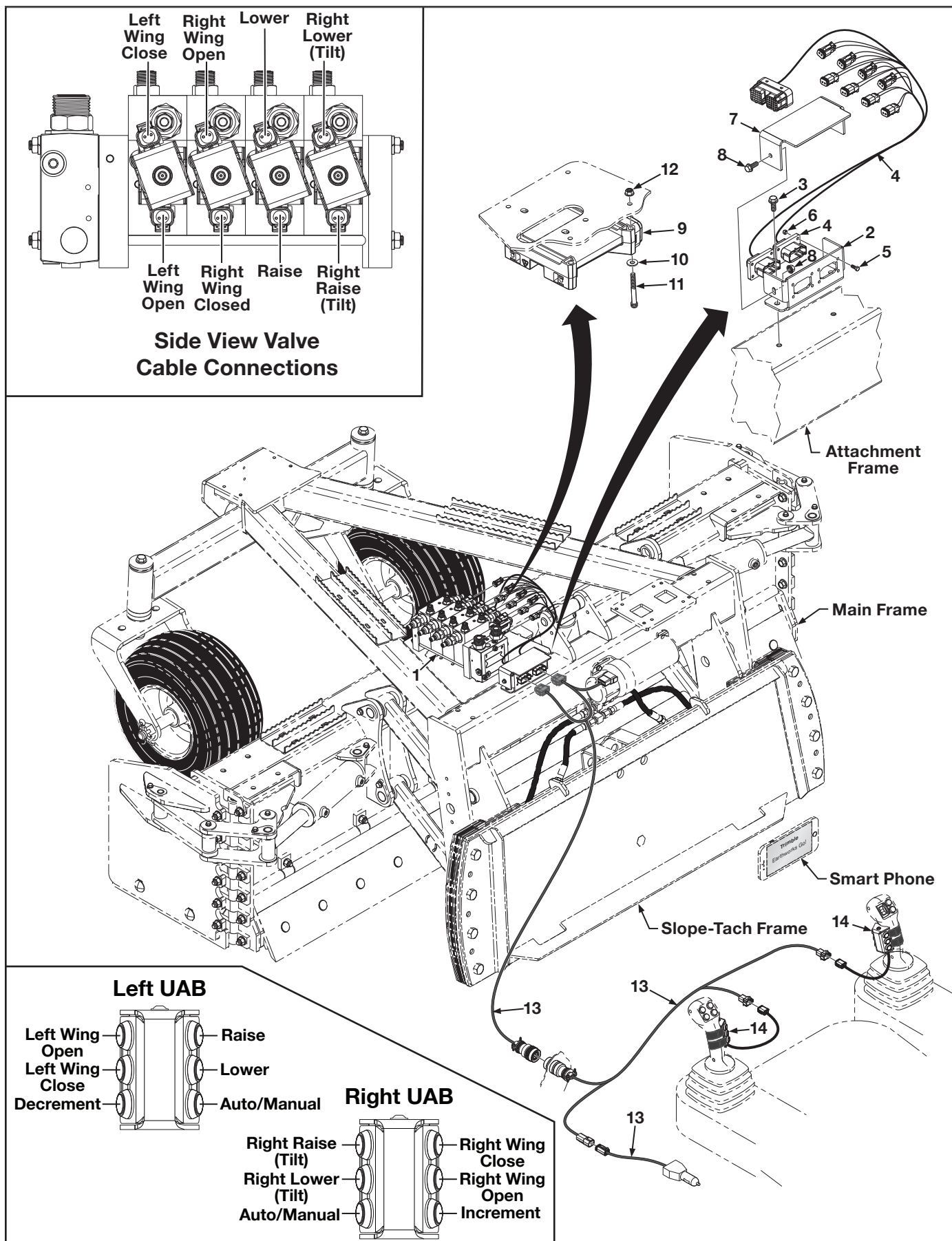
Figure 5-8. Hydraulics Slope Cylinder, Fittings and Related Parts

Item	Part No.	Qty	Description
1	000-166-868	1	Valve Assembly, Hydraulic, MVB10, Includes Items 2
2	000-166-685	2	Fitting, Adapter, 6OFS x 6MB
3	000-150-074	2	Bolt, Serrated Flange, 5/16"-18UNC x 3/4" Long
4	000-150-119	1	Bolt, Serrated Flange, 3/8"-16UNC x 3/4" Long
5	000-166-738	2	Fitting, Elbow, 90°, 6OFS x 6FOFX
6	000-166-897	2	Hose Assembly, 3/8" Dia x 38" L x 6FOFX x 6FOFX90°, 3,000 PSI
7	000-166-695	2	Fitting, Tee, Bulkhead Branch, 6OFS x 6OFS x 6OFSBH, Includes Item 8
8	NSS	2	Nut, Hex, Lock
9	000-166-737	1	Hose Assembly, 3/8" Dia. x 20" Long, 6FFX x 6FXX45, 3,000 PSI
10	000-166-737	1	Hose Assembly, 3/8" Dia. x 20" Long, 6FFX x 6FXX45, 3,000 PSI
11	000-166-737	1	Hose Assembly, 3/8" Dia. x 20" Long, 6FFX x 6FXX45, 3,000 PSI
12	000-166-737	1	Hose Assembly, 3/8" Dia. x 20" Long, 6FFX x 6FXX45, 3,000 PSI
13	000-166-685	4	Adapter, Straight, 6OFS x 6MB
14	000-166-680	2	Cylinder, Hydraulic, 2-1/2" Bore x 6" Stroke
15	000-161-164	2	Pin, Pivot, 1" Dia. x 5" Long
16	000-161-168	2	Pin, Pivot, 1" Dia. x 4-5/8" Long
17	000-150-078	4	Bolt, Serrated Flange, 5/16"-18UNC x 1" Long
18	000-158-223	4	Nut, Lock, Flange, Nylon-Insert, 5/16"-18UNC
			BH-Bulkhead MP-Male Pipe FP-Female Pipe FPX-Female Pipe Swivel FFX- Female O-Ring Flat Face Swivel MB-Male O-Ring Boss FB-Female O-Ring Boss MJ-Male JIC FJ-Female JIC FJX-Female JIC Swivel OFS-O-Ring Face Seal OFSBH-O-Ring Face Seal Bulkhead

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PARTS ILLUSTRATIONS

Figure 5-9. Valve Module and Related Harnessing



PARTS ILLUSTRATIONS

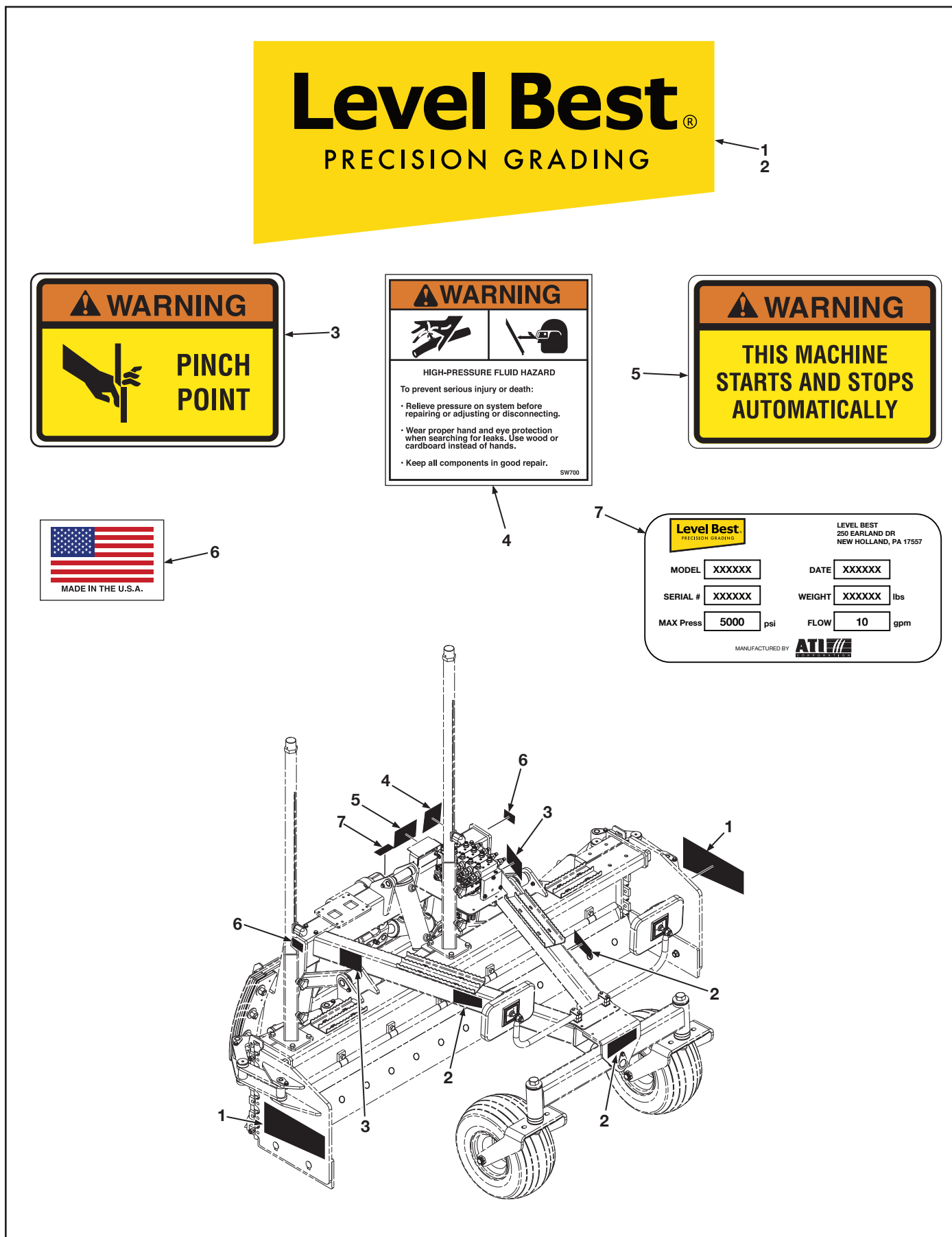
Figure 5-9. Valve Module and Related Harnessing

Item	Part No.	Qty	Description
1	000-166-868	1	Valve Assembly, Hydraulic, MVB10
2	312-000-113	1	Bulkhead, Electrical, PDX, Bolt-On, S-G Black
3	000-150-074	2	Bolt, Serrated Flange, 5/16"-18UNC x 3/4" Long
4	000-200-559	1	Harness, Attachment, PDX
5	000-150-395	8	Screw, Hex Head, #8-32UNC x 3/4" Long
6	000-158-219	8	Nut, Hex, Nylon Lock, #8-32UNC
7	316-001-231	1	Plate, Cover, Brace, Bulkhead, Mount
8	000-150-046	2	Bolt, Serrated Flange, 1/4"-20UNC x 1/2" Long
9	000-200-560	1	Module, Controller, Plus+1, 50-P, PDX-1489-R0
10	000-155-020	2	Washer, Flat, 1/4"
11	000-150-080	2	Bolt, Socket Head, 1/4"-20UNC x 2-1/2" Long
12	000-158-048	2	Nut, Serrated Flange, 1/4"-20UNC
13	000-200-563	1	Harness, Universal Auxiliary
14	000-200-565	2	Controls, UAB

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PARTS ILLUSTRATIONS

Figure 5-10. Decals



PARTS ILLUSTRATIONS

Figure 5-10. Decals

Item	Part No.	Qty	Description
1	000-186-102	2	Decal, Level Best Logo, Large
2	000-186-110	3	Decal, Level Best Logo, Small
3	000-186-055	2	Decal, Danger, Pinch Point
4	000-186-041	1	Decal, Warning, High-Pressure
5	000-186-094	1	Decal, Danger, This Machine Starts & Stops Automatically
6	000-186-092	2	Decal, Made in U.S.A.
7	000-186-111	1	Plate, Model/Serial, Level Best

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(for future use)

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