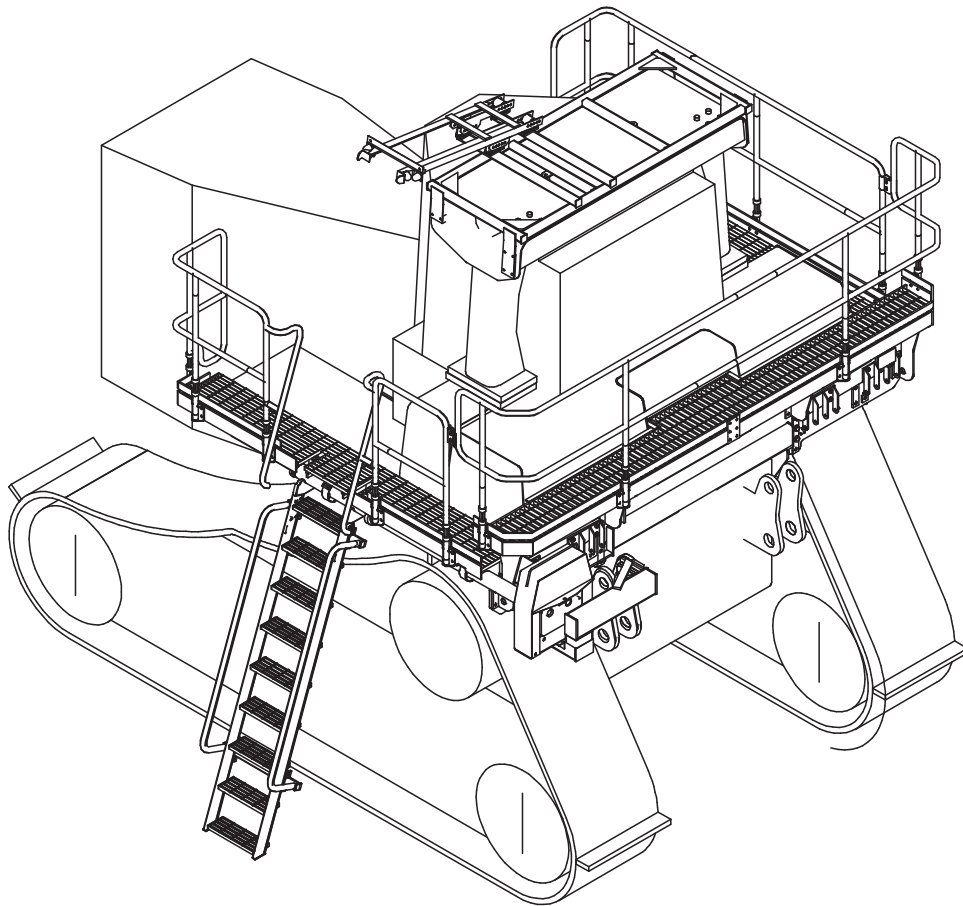




FOLDING LADDER

Manual for Cat D10T Dozer Complete with Wrap-around Walkways



Model No.: PSA-D10T-F/L+RHW
Serial No.: D10T-RHW-001- ~
Date Manufactured: 2009

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Caterpillar D10T Dozer



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	Material Kit Supplied

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Section 1 Installation and Mounting Instructions

NOTE

Follow all on-site/Mine lifting and safety procedures when installing Power Step Ladder System to Dozer.

See Drawing **22 286 & 22 053** (Page 4 & 5)

1. Remove grille plates from the rear of both mudguards.
Remove the light and/or horn from the rear of the left-side mudguard.
Draw out wiring for future re-use.
2. Weld the Mounting Pads to the rear of the mudguards, in the corners made by the mudguard top plate and vertical inner plate, and in the corner made by the rolled outer edge of the mudguard top plate. All the rear mounting pads fit hard against the folded rear mudguard infill. All these mounting pads have bevelled edges to clear existing welds in the corners. The rear mounting pads are all 'handed' in that the bevels are located to suit the requirements of one side of the machine or the other.
3. Measure forward from the back surfaces of the rear mounting pads and down from the top surface of the mudguard decks to locate the side mounting pads. Weld these mounting pads in position.

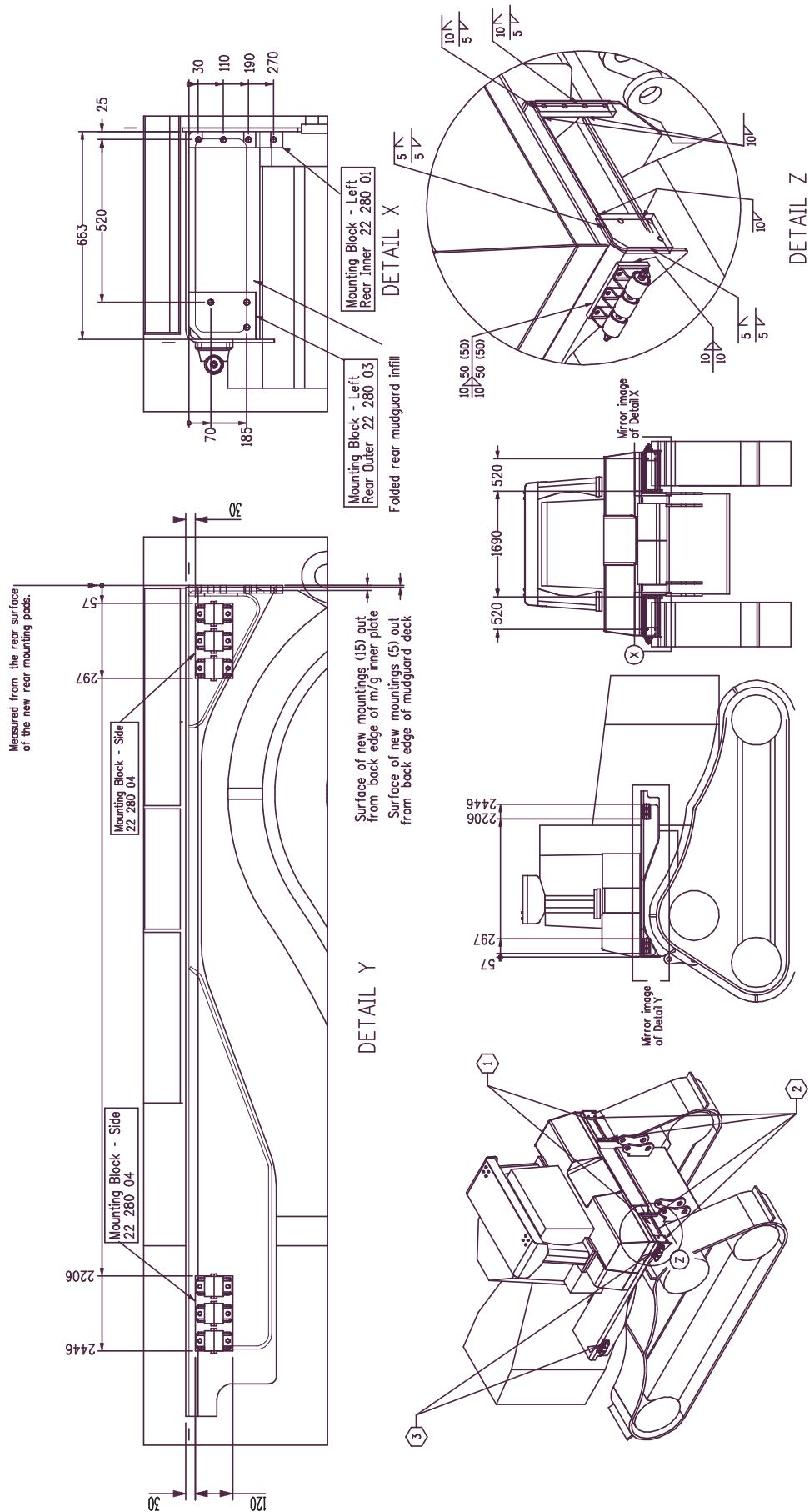
Welding: Cat SP to AS1554
8 cfw

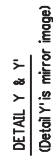
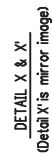
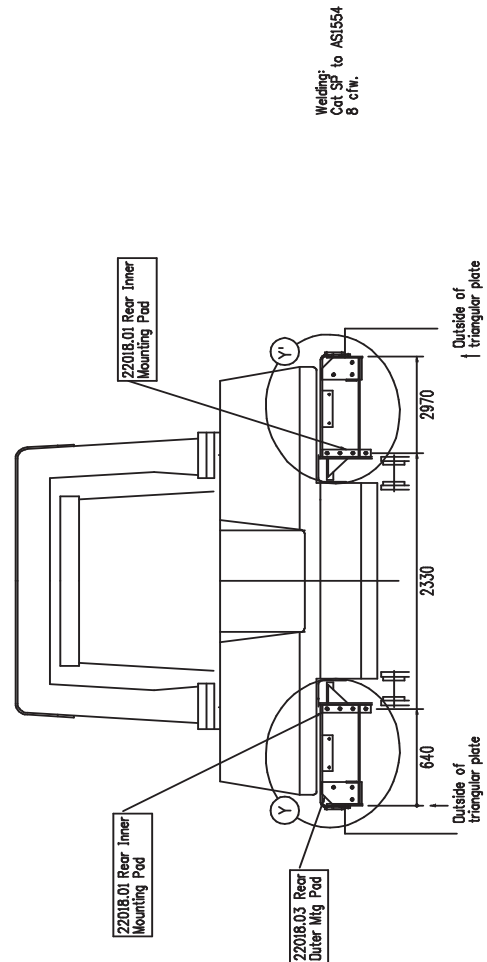
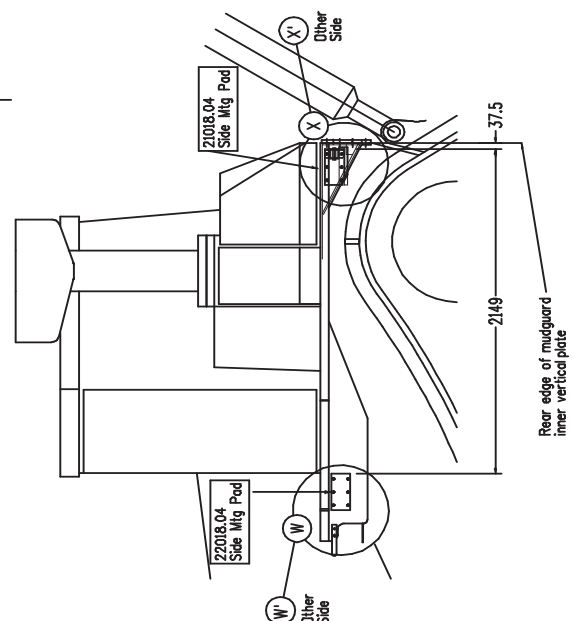
FOLDING LADDER

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Section 1 Installation Instruction Drawings - 22 286



[illegible]

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Section 1 Installation Instruction Drawings - 22 288

See Drawing 22 288 - Page 7

Procedure

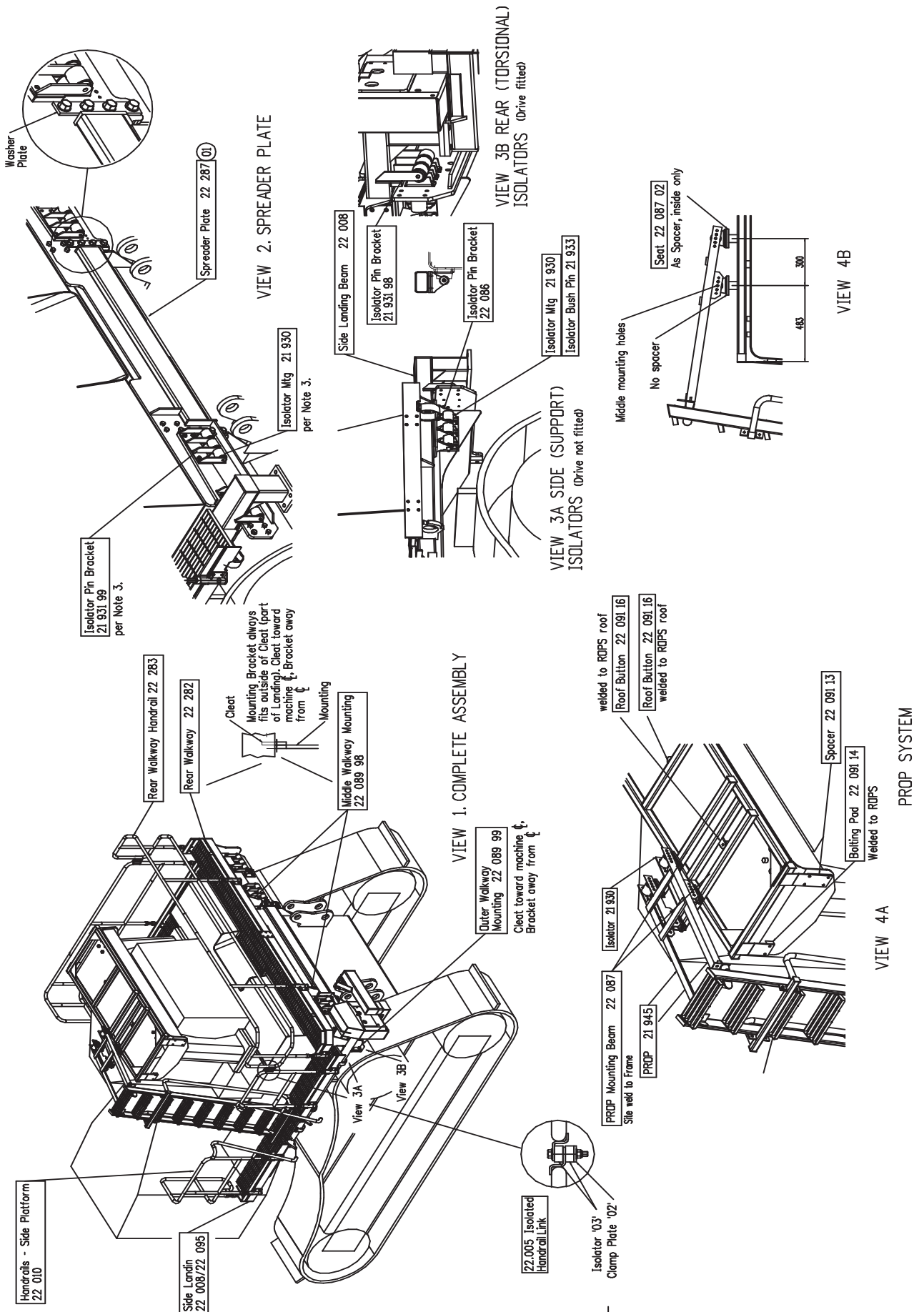
1. Fit Mounting Blocks per **Drg 22 286**
2. Per View 2, Spreader Plate: Fit Spreader Plate **22 287** to rear mounting blocks. Use Washer Plates **22 281** and washers under bolt heads - ensure maximum engagement of bolt threads in blind threaded holes. Washer Plates not shown in most Views in this drawing.
3. Per Views 3A & 3B, Isolators: Fit Isolator Brackets **21 930** (See also View 2). Fit Side Landing Beam **22 008** with Ladder Shaft and Drive already assembled, supported by Isolators.
Similarly fit Right Side Landing on the right hand side of the machine
4. Fit Ladder. Using Spacers (within Actuator Cylinder Mounting **21 954**), adjust drive so gears are not loaded when ladder is lowered.
5. Per Views 1, Complete Assembly and 4, PROP System:
Attach PROP System Mounting Frame **22 091** atop cabin, on ROPS unless similar is already fitted by customer. Clamp PROP Mtg Beams **22 087** in position shown in View 4B and mount PROP **21 945**. Adjust position of Beams & PROP so that, with PROP attached to Isolators using middle holes (of set of 5), ladder gear drive is not loaded when ladder is fully raised. Weld Beams to Frame, 6cfw where visible from above.
6. Per View 1: Fit Rear Walkway **22 282** Fit Handrails.

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Caterpillar D10T Dozer



Section 1 Installation Instruction Drawings - 22 288

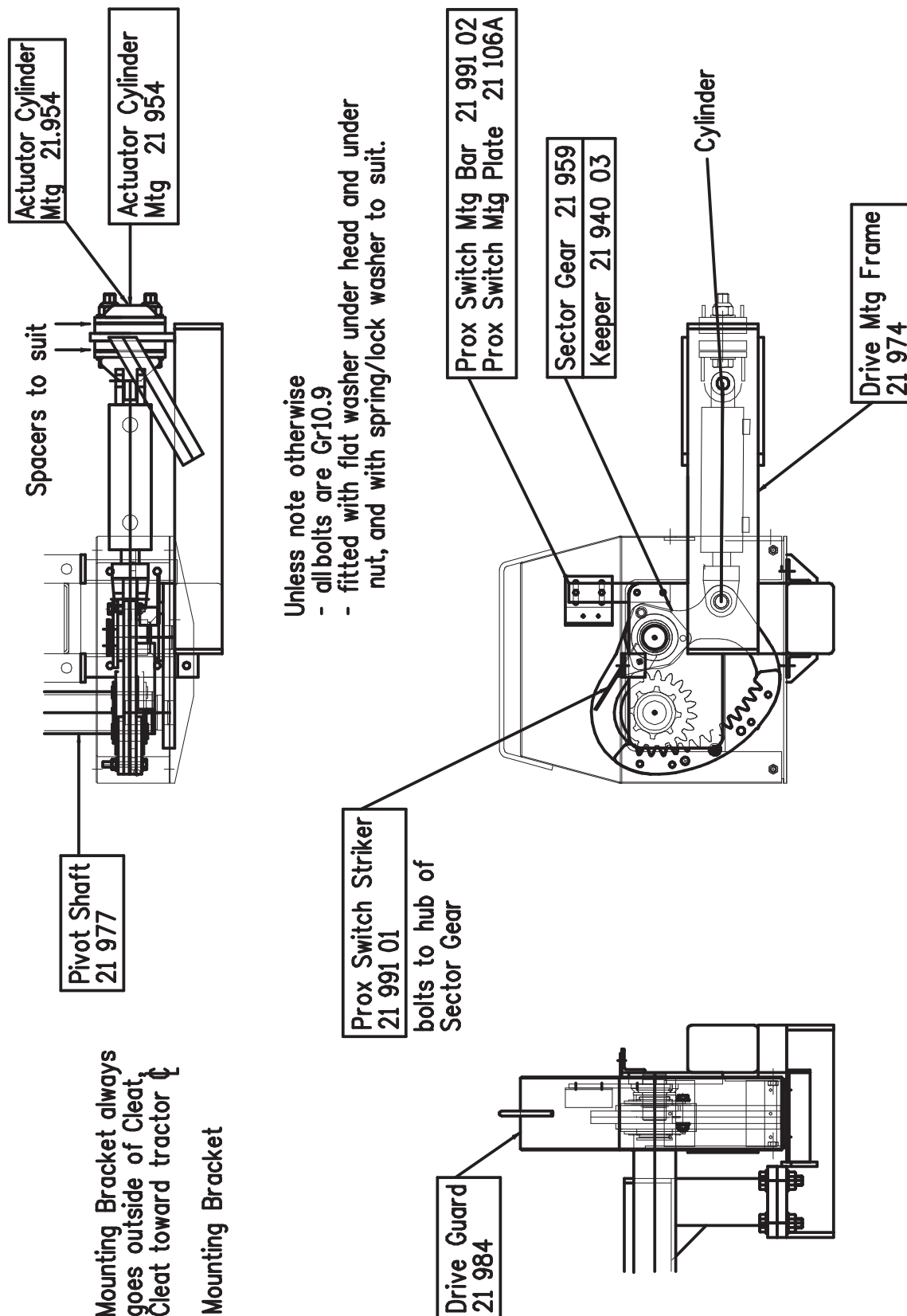


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Caterpillar D10T Dozer



Section 1 Drive Arrangement - 22 288



DRIVE ARRANGEMENT

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Caterpillar D10T Dozer



Section 1 Installation and Mounting Instructions (cont.)

Maintenance Notes

NOTE

Follow all on-site/Mine lifting and safety procedures when installing Power Step Landings to Dozer.

WARNING

Raising the POWER STEP ladder by external means can create a vacuum in the hydraulic cylinder and create the opportunity to allow air into the hydraulic system, defeating the inherent safety features of the POWER STEP.

This must be avoided, to maintain safe operation of the POWER STEP.

In instances where the use of external means to raise the ladder must be used, please follow the following instructions:

Loosen hard plumbed hydraulic lines on cylinder side of lock valve on cylinder.

Raise ladder by available means.

Note: Make necessary arrangements to collect displaced oil, and be aware that air enters the piston side of the cylinder as ladder is raised.

Lock in raised position.

Re-tighten hydraulic fittings.

SECURE THE LADDER IN THE RAISED POSITION, MECHANICALLY, CHAIN & TAGOUT THE POWER STEP

To recommission the POWER STEP:

Loosen hydraulic fittings on cylinder side of lock valve.

Note: Collect displaced oil.

Lower ladder to lowest position, using alternate safety approved means, fully retracting cylinder. Ensure all personnel are clear of step radius.

Operate electrical control switch to purge air from the hydraulic line systems, lock valve and cylinder.

Tighten the hydraulic fittings either side of lock valve to restriction fitting.

Cycle step unloaded several times to purge all air from hydraulic system.

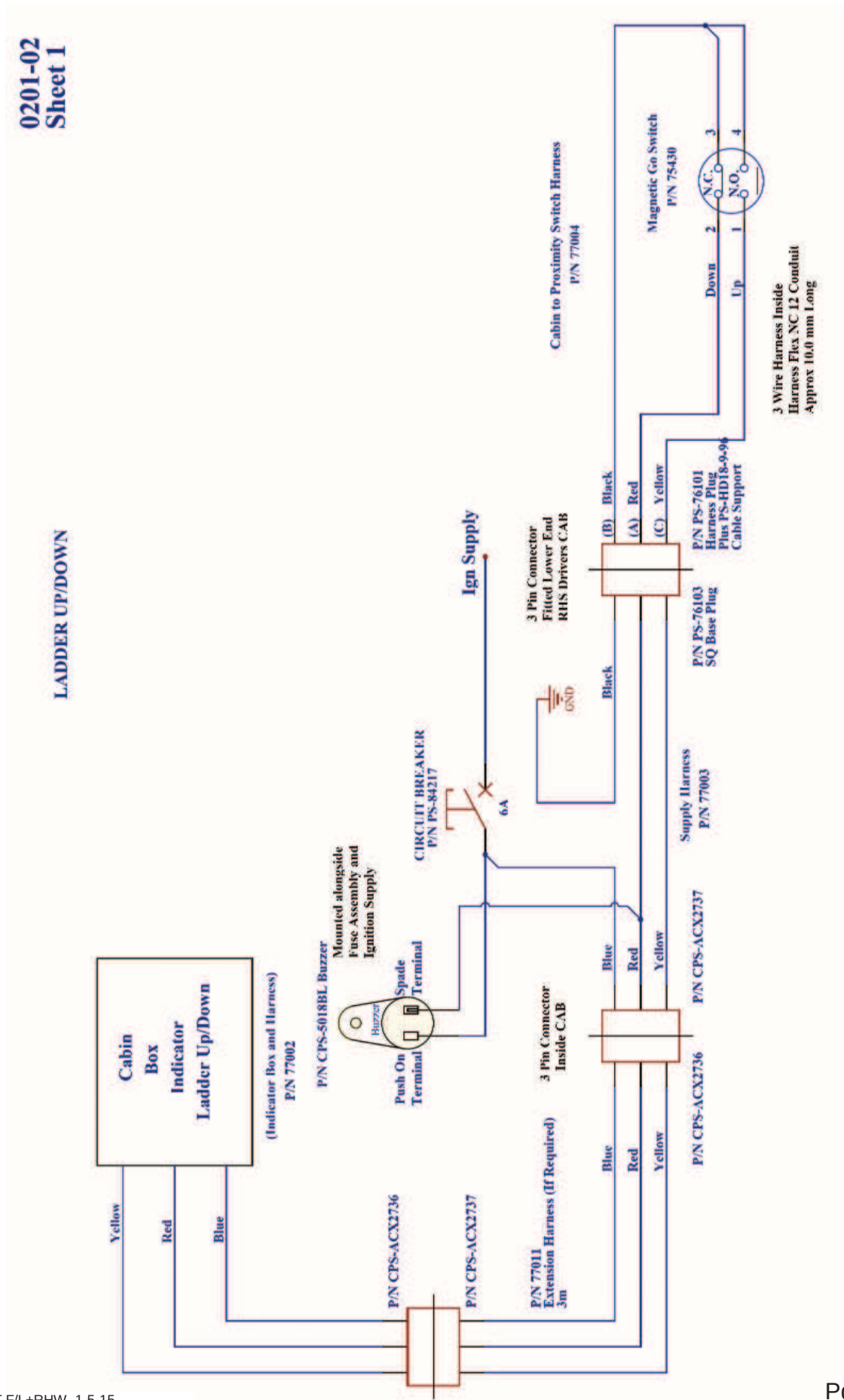
The Power Step will not operate correctly if there is any air in the hydraulic circuit (due to the incorrect operation of the lock valve).

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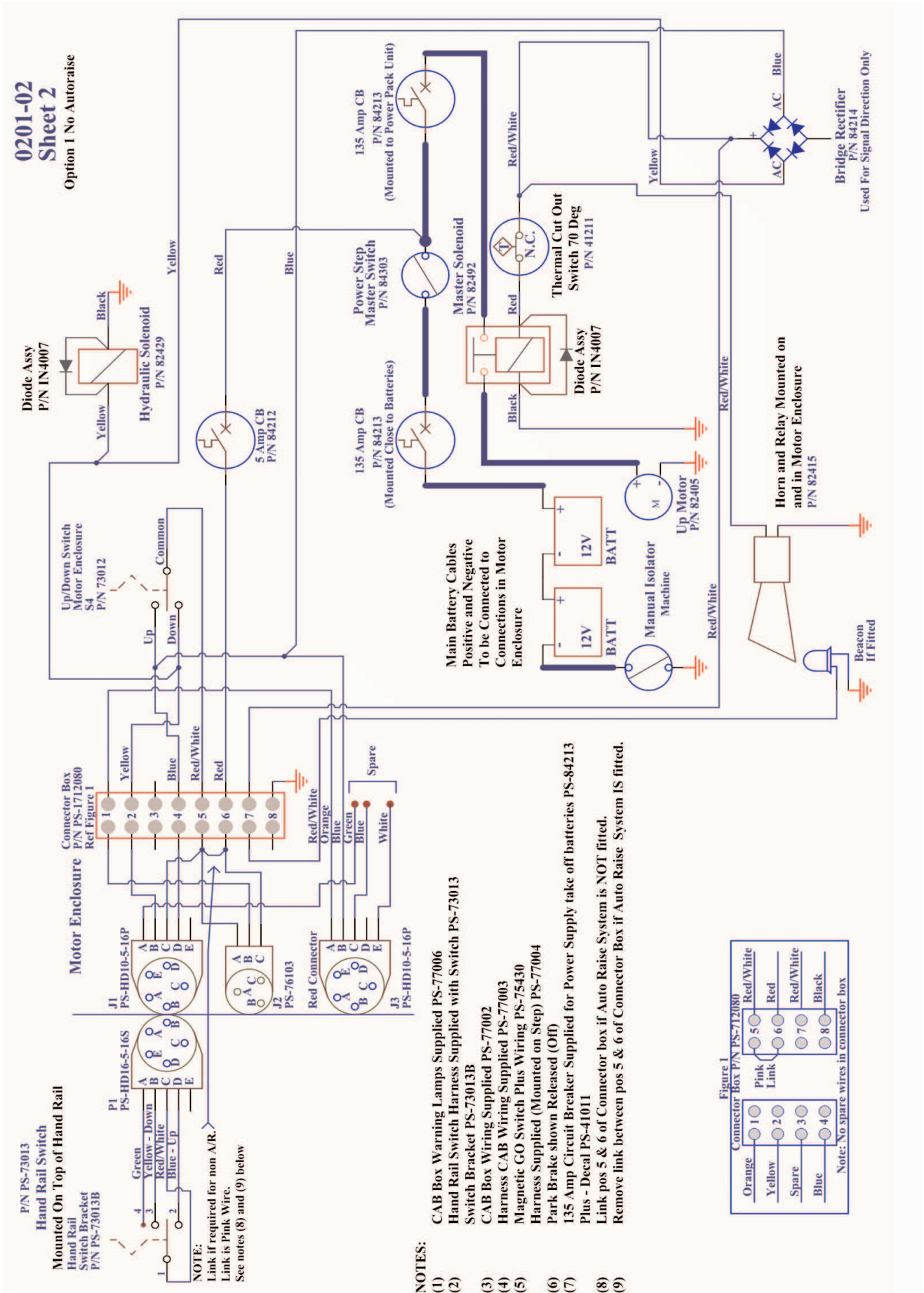
Section 2 Electrical System - Wiring Diagrams Page 1



FOLDING LADDER Caterpillar D10T Dozer



Section 2 Electrical System - Wiring Diagrams Page 2 Non Auto-Raise

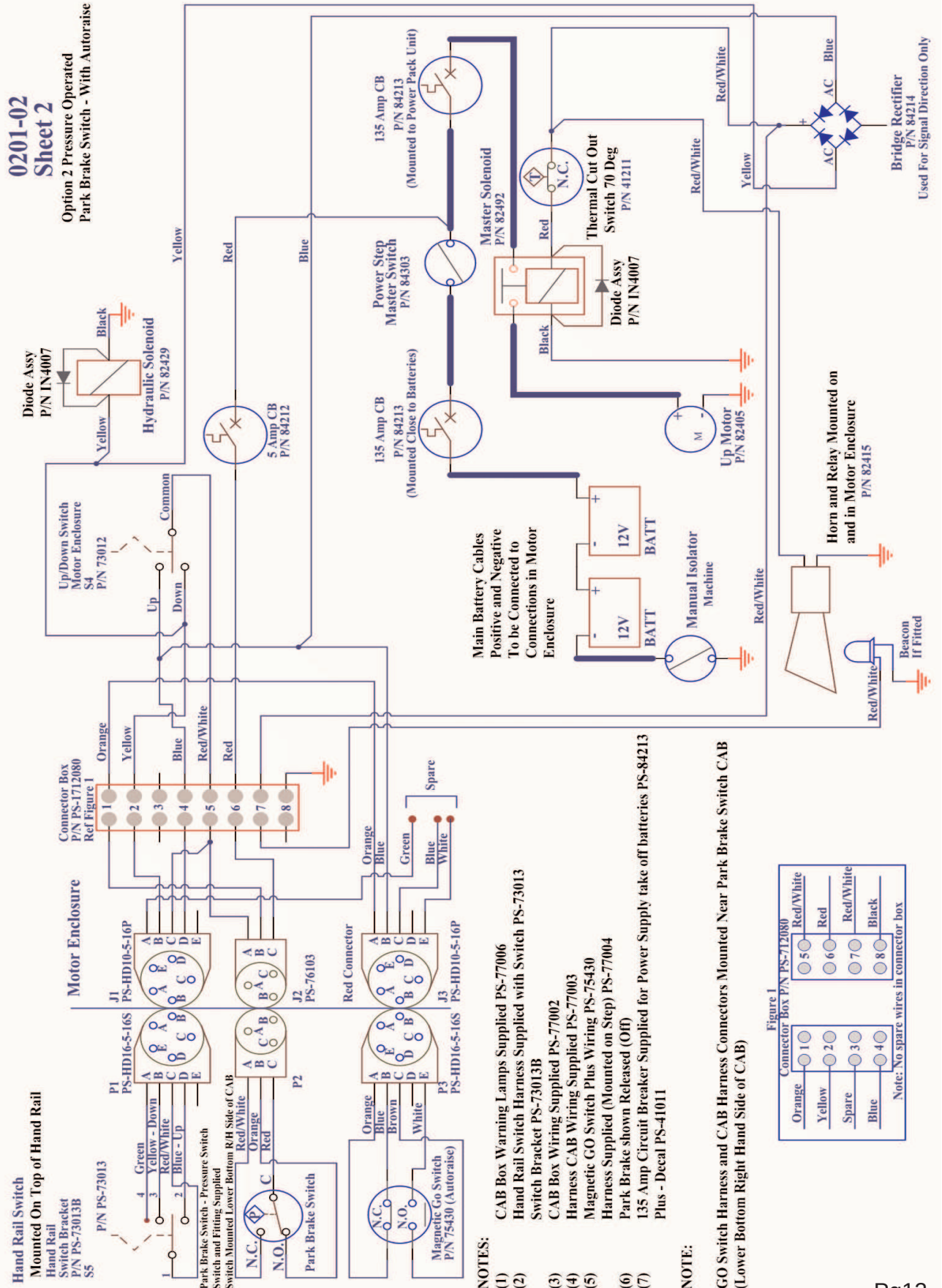


FOLDING LADDER Caterpillar D10T Dozer



Section 2 Electrical System - Wiring Diagrams Page 3

Auto-Raise
Pressure Switch Operated



FOLDING LADDER Caterpillar D10T Dozer

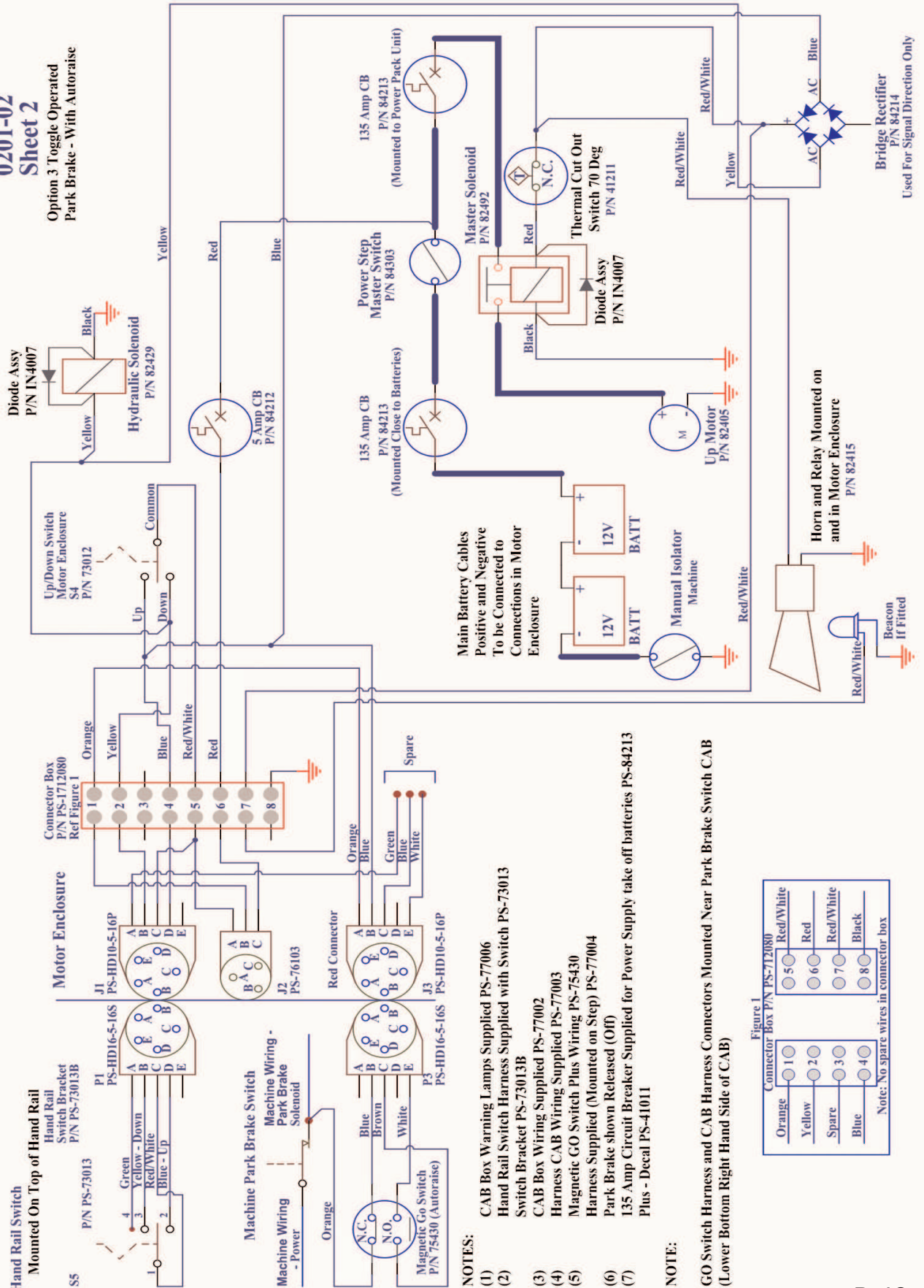


Section 2 Electrical System - Wiring Diagrams Page 4

Auto-Raise
Toggle Switch Operated

0201-02
Sheet 2

Option 3 Toggle Operated
Park Brake - With Autoraise

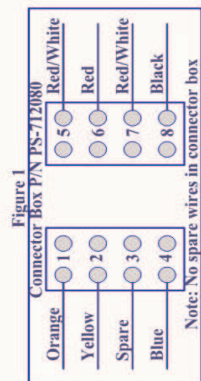


NOTES:

- (1) CAB Box Warning Lamps Supplied PS-77006
- (2) Hand Rail Switch Harness Supplied with Switch PS-73013
- (3) Switch Bracket PS-73013B
- (4) CAB Box Wiring Supplied PS-77002
- (5) Harness CAB Wiring Supplied PS-77003
- (6) Magnetic GO Switch Plus Wiring PS-75430
- (7) Park Brake Switch Supplied (Mounted on Step) PS-77004

NOTE:

GO Switch Harness and CAB Harness Connectors Mounted Near Park Brake Switch CAB (Lower Bottom Right Hand Side of CAB)



FOLDING LADDER

Caterpillar D10T Dozer

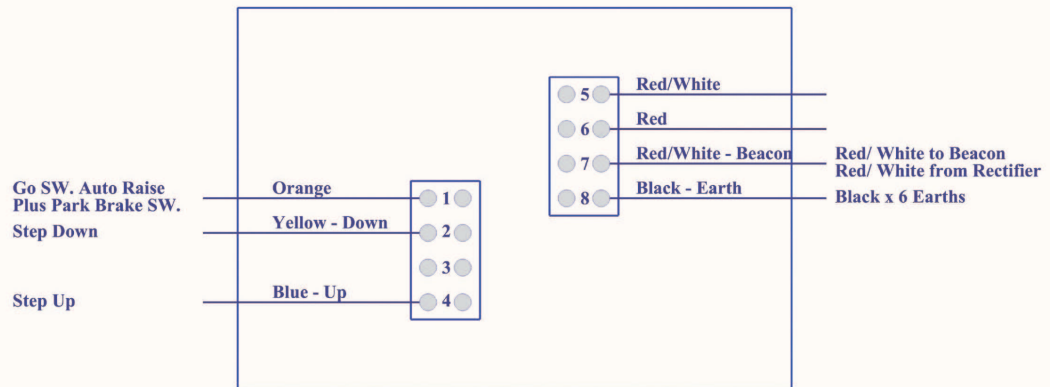


Section 2 Electrical System - Wiring Diagrams

Page 5

0201-02
Sheet 5

WIRING HARNESS 1



Park Brake Harness - P/No 77006-PB

<u>Plug Term</u>	<u>Colour</u>		<u>Terminal ID.</u>	
(C)	Red	-	COM	Length 10m (Harness Flex No 12)
(A)	Red/White	-	N.C.	
(B)	Orange	-	N.O.	

Go Switch Harness (Auto Raise) P/No 77009-AR

<u>Plug Term</u>	<u>Colour</u>		<u>Terminal ID.</u>	
(B)	Blue	-	No. 1 Terminal N.C. Contact	Length 10m (Harness Flex No 12)
(E)	White (Spare)	-	No. 2 Terminal N.O. Contact	
(A)	Orange	-	No. 3 Terminal N.C. Contact	
(C)	Brown (Spare)	-	No. 4 Terminal N.O. Contact	

Go Switch Harness (Cabin to Go Switch) P/No 77004 (Cabin Indicator Ladder Up/Down)

<u>Plug Term</u>	<u>Colour</u>		<u>Terminal ID.</u>	
(B)	Black	-	No. 1 Terminal N.C. Contact	Length 10m (Harness Flex No 12)
(B)	Black	-	No. 2 Terminal N.O. Contact	
(Bridge No. 1 and No. 2 in Go Switch)				
(A)	Red	-	No. 3 Terminal N.C. Contact	
(C)	Yellow	-	No. 4 Terminal N.O. Contact	

Hand Rail Switch Harness (P/No 77010) (Handrail SW to Power Pack Box)

<u>Plug Term</u>	<u>Colour</u>		<u>SW Contacts</u>		<u>Switch Terminal No.</u>	
(C)	Red/White	-	No 1	-	No 5	Length 10m (Harness Flex No 12)
(D)	Blue	-	No 2	-	No 4	
(B)	Yellow	-	No 3	-	No 2	
(A)	Green	-	No 4	-		

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Section 2 Electrical System - Wiring Diagrams Page 6

WIRING HARNESS 2

0201-02
Sheet 6

Go Switch

Auto - Raise Connection

N.C.	-	Orange	-	Blue
N.O.	-	Brown	-	White (Spare)

Go Switch - Cabin Indicator

Up/Down Lights Connection

N.C.	-	Red	-	Black
N.O.	-	Yellow	-	Black



Linked

Hand Control Switch - Mounted on Hand Rails (P/No 73013)

Power Step Wiring Harness (10m) and Connections Supplied

Contacts

1	-	Red/White	-	Power Supply
2	-	Blue	-	Up Switch
3	-	Yellow	-	Down Switch
4	-	Green	-	Start Sol Motor [FRS Power Pack only (Spare)]

Pendant Switch

Standard Switch Wiring and Connections



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Section 3 Recommended Maintenance Procedure

Daily

Visually check ladder and structure for damage, loose components, handrails, etc.

Check for hydraulic oil leaks from hydraulic cylinders, plumbing and hoses.

Notify the appropriate supervisor for any observed damage or malfunction.

500 Hours

Grease the nipples on the rotation shaft and sector gears.

Check main mounting bolts for torque.

Check hydraulic oil level in power pack and top up as necessary. (Ladder in raised position).

Top up using same hydraulic oil as used in hydraulics of machine.
Thoroughly check all electrical wiring for damage, replace as necessary.

Repeat daily check as above

5000 Hours

Change hydraulic oil in tank of hydraulic power pack (5.0 litres)

It is recommended that the same hydraulic oil be used in the power pack as the hydraulics of the machine.

Grease 4 grease nipples on rotation shaft and sector gears, all of these are accessible with the ladder lowered, and accessed from under the ladder.

Check and inspect all main bolts on ladder system.
Retorque if required.

Repeat daily check as above

NOTE.

**THE RELIEF PRESSURE OF THE POWERPACK IS TO BE SET TO 2800PSI.
IF THE POWERPACK IS REPLACED, THIS RELIEF PRESSURE WILL NEED TO BE
RESET USING INLINE GAUGES.
FAILURE TO DO SO MAY RESULT IN ACCIDENT OR INJURY.**

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Section 4 Operating Procedure

To Lower Ladder (from the machine)

Position machine in a level, safe area, away from the work face, whenever possible. Apply park brake and lower engine speed to idle.

Check that the area below the Ladder Access System is clear of people and obstacles, and lower ladder by operating the two position electrical switch adjacent to the ladder, to the down position by pressing the switch down.

Hold the switch in the down position until ladder is fully lowered.

If the Dozer is parked on uneven ground, the bottom of the ladder may touch the ground before the ladder is in the fully lowered position.

Should this occur, descend the ladder with caution.

To Raise Ladder

Ascend the ladder onto the landing of the Dozer.

Ensure the area around the ladder is clear of people and standing to the side, clear of the area the handrails and ladder raises into, operate the electrical switch to the raise position (up).

Hold the switch in the up position until the ladder is in the fully raised position.

The ladder is now raised and stored.

OPERATING NOTES

NOTE: FLOW CONTROL VALVE ADJUSTMENT:

The valve should be positioned to restrict the flow and speed of the Power Step when lowering. Adjust the knob on top of the valve by turning left or right (clockwise) when the step is being lowered, until it is lowering at a safe and reasonable speed.

When it is adjusted, lock the adjusting knob by tightening the grub screw located on the side of the knob.

NOTE: MAGNETIC 'GO' SWITCH ADJUSTMENT:

The switch target trigger area is located on the opposite side and end from the cable entry point on the switch. Once it is mounted to the switch bracket, adjust the switch in or out from the stair steel trigger point, to be within 3mm - 10mm from touching each other when the stair is in the desired rest position.

[DO NOT EXCEED 10mm DISTANCE BETWEEN THE SWITCH AND STRIKER PLATE].

Test by raising and lowering the Power Step a couple of times and adjust again if necessary.

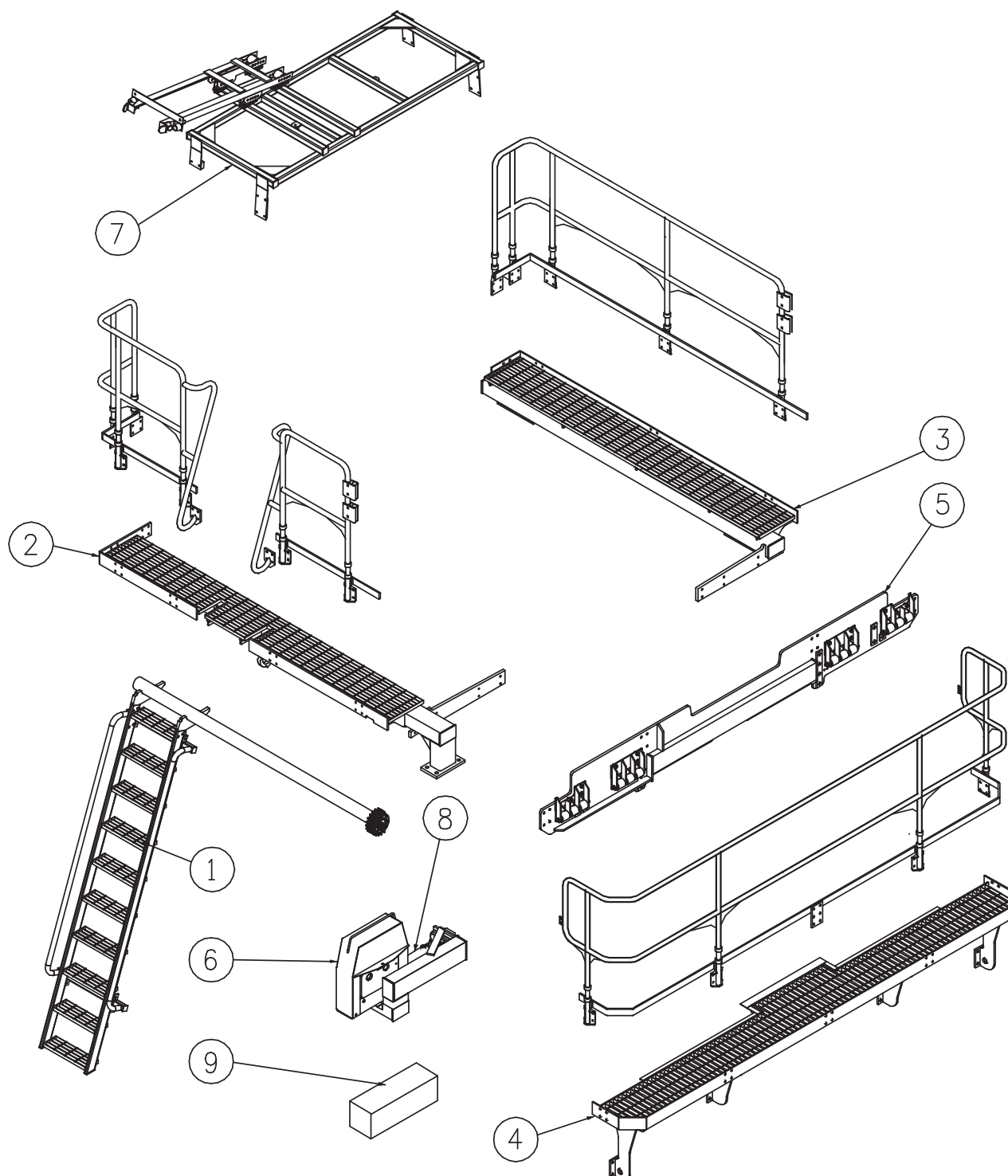
FOLDING LADDER

Caterpillar D10T

Dozer



Section 5 Assembly Complete

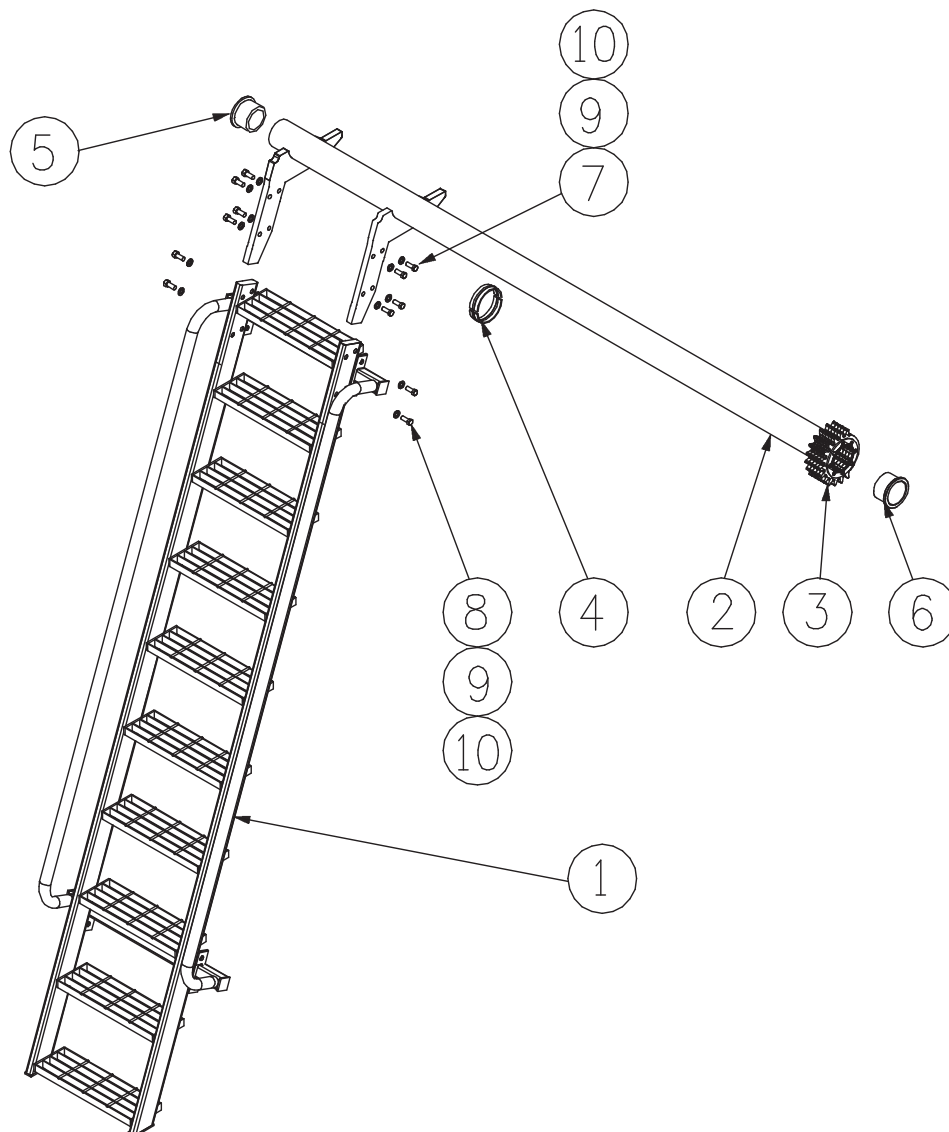


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Section 5-1 Ladder Assembly



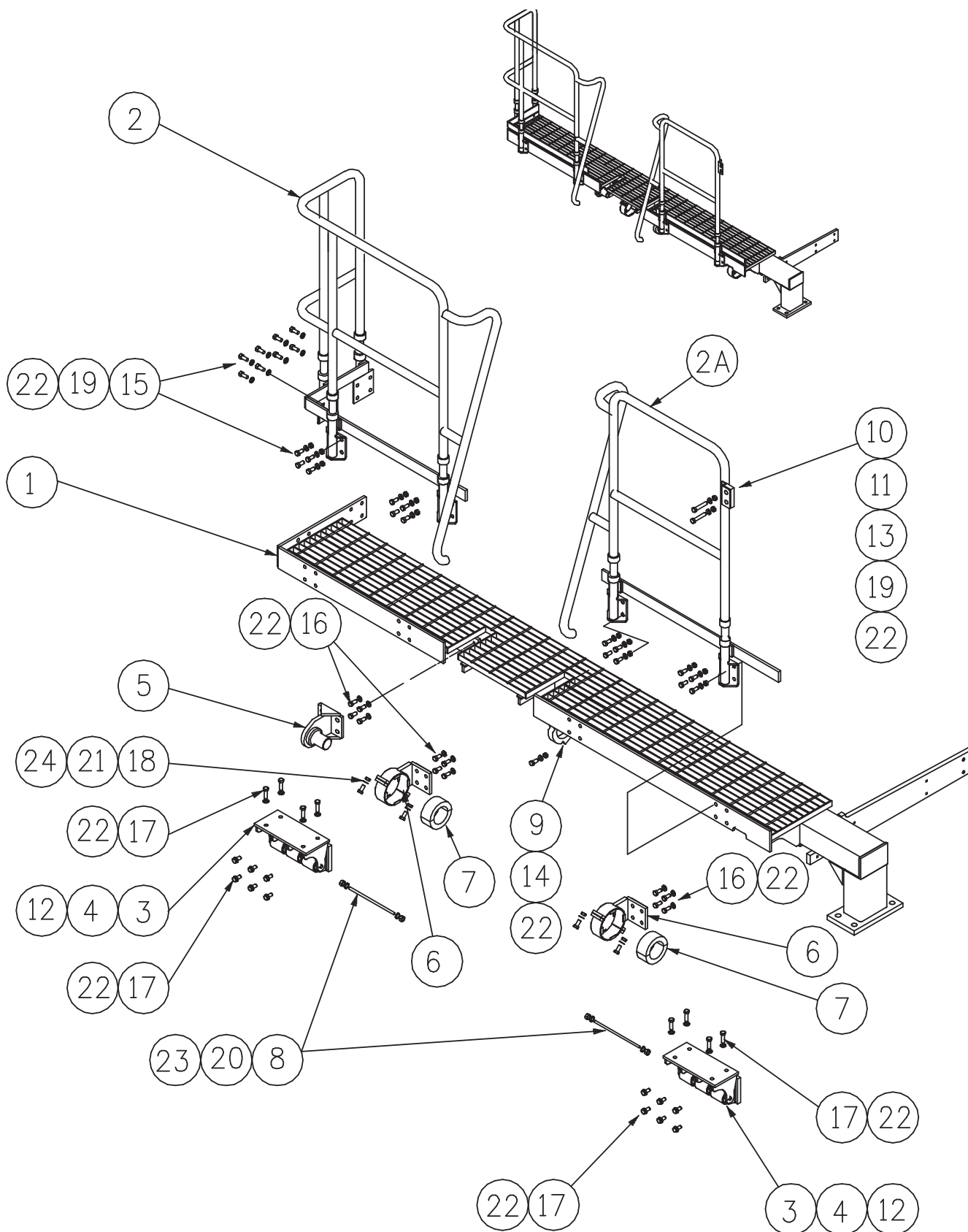
Item	Part No.	Part Name	Qty		
1	PS-22002	LADDER & HANDRAIL FABRICATION	1		
2	PS-22012	ROTATION SHAFT	1		
3	PS-21958-01	PINION	1		
4	PS-21926-01	LADDER SHAFT PIVOT BUSH-MIDDLE	1		
5	PS-21926-02	LADDER SHAFT PIVOT BUSH-NON DRIVE END	1		
6	PS-21926-03	LADDER SHAFT PIVOT BUSH- DRIVE END	1		
7	CPS-M12X45ZP	BOLT-M12 x 45	8		
8	CPS-M12X30ZP	BOLT-M12 x 30	8		
9	CPS-M12NZP	NUT-M12	16		
10	CPS-M12WH	WASHER-M12	34		

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Section 5-2 Landing Assembly LHS PS- 22095A



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Caterpillar D10T Dozer



Section 5-2 Landing Assembly LHS PS- 22095A

See Drawing Page 20

Item	Part No.	Part Name	Qty		
1	PS-22095	LANDING ASSEMBLY	1		
2	PS-22010-A	HANDRAIL-FRONT-LHS	1		
2A	PS-22010-B	HANDRAIL-REAR-LHS	1		
3	PS-22086	ISOLATOR PIN BRACKETS	2		
4	PS-21930A	ISOLATOR MOUNTINGS ASSY.	6		
5	PS-21976	FRONT PIVOT PIN BRACKET	1		
6	PS-21941	ANTI VIBRATION BEARING (Shell only)	2		
7	PS-21941-06	RUBBER BUSH (2 x Rubbers per seat)	2 Sets		
8	PS-21933	ISOLATOR BUSH PIN	2		
9	PS-21925	MIDDLE BEARING MOUNTING	1		
10	PS-22005-01	ANGLE BRACKET	2		
11	PS-22005-03/02	ISOLATOR RUBBER/CLAMP	2		
12	PS-22085-04	SIDE MOUNTING PAD	2		
13	CPS-M12X75ZP	BOLT-M12 x 75	2		
14	CPS-M12X65ZP	BOLT-SOCKET HEAD-M12 x 65	2		
15	CPS-M12X35ZP	BOLT-M12 x 35	24		
16	CPS-M12X30ZP	BOLT-M12 x 30	12		
17	CPS-M12X25ZP	BOLT-M12 x 25	20		
18	CPS-M8X35ZP	BOLT-M8 x 35	8		
19	CPS-M12NZP	NUT-M12	26		
20	CPS-1/2"NN	NUT-NYLOC-1/2"UNC	4		
21	CPS-M8NN	NUT-NYLOC-M8	8		
22	CPS-M12WH	WASHER-HARDENED-M12	76		
23	CPS-1/2"WH	WASHER-HARDENED-1/2"	4		
24	CPS-M8WH	WASHER-HARDENED-M8	16		

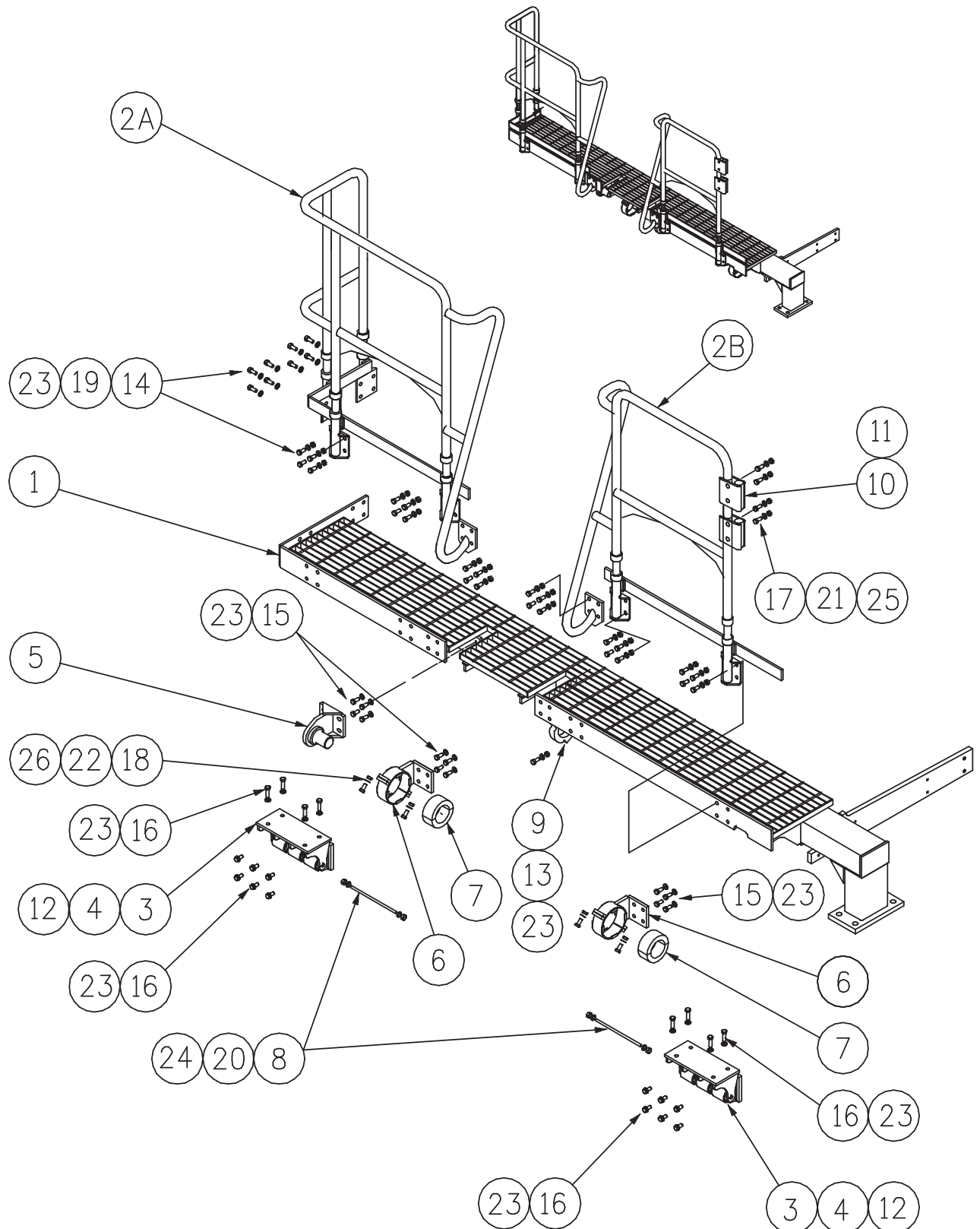
NOTE : 21914A - Anti vibration Assy. Includes Items 6,7,18,21 & 24)

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Caterpillar D10T Dozer



Section 5-2 Landing Assembly LHS PS- 22095A-NG **Upgraded Handrails**
See Parts List Page 22



FOLDING LADDER

Caterpillar D10T Dozer



Section 5-2 Landing Assembly LHS PS- 22095A-NG **Upgraded Handrails**

See Drawing Page 22

Item	Part No.	Part Name	Qty		
1	PS-22095	LANDING ASSEMBLY	1		
2A	PS-22010-A-NG	HANDRAIL-FRONT LHS- NEW GENERATION	1		
2B	PS-22010-B-NG	HANDRAIL-REAR LHS- NEW GENERATION	1		
3	PS-22086	ISOLATOR PIN BRACKETS	2		
4	PS-21930A	ISOLATOR MOUNTINGS	6		
5	PS-21976	FRONT PIVOT PIN BRACKET	1		
6	PS-21941	ANTI VIBRATION BEARING	2		
7	PS-21941-06	RUBBER BUSH (Shell only)	2		
8	PS-21933	ISOLATOR BUSH PIN (2 x Rubber per seat)	2 Sets		
9	PS-21925	MIDDLE BEARING MOUNTING	1		
10	PS-HRI-C11	RUBBER HOSE Pirtek IRR-032 x 120	4		
11	PS-HRI-A06	HANDRAIL POST - DOUBLE CLAMP ASSY.	2		
12	PS-22085-04	SIDE MOUNTING PAD	2		
13	CPS-M12X65ZP	BOLT-SOCKET HEAD-M12 x 65	2		
14	CPS-M12X35ZP	BOLT-M12 x 35	32		
15	CPS-M12X30ZP	BOLT-M12 x 30	12		
16	CPS-M12X25ZP	BOLT-M12 x 25	20		
17	CPS-M10X75ZP	BOLT-M10 x 75	4		
18	CPS-M8X35ZP	BOLT-M8 x 35	8		
19	CPS-M12NZP	NUT-M12	26		
20	CPS-1/2"NN	NUT-NYLOC-1/2"UNC	4		
21	CPS-M10NN	NUT-NYLOC-M10	4		
22	CPS-M8NN	NUT-NYLOC-M8	8		
23	CPS-M12WH	WASHER-HARDENED-M12	86		
24	CPS-1/2"WH	WASHER-HARDENED-1/2"	4		
25	CPS-M10WH	WASHER-HARDENED-M10	8		
26	CPS-M8WH	WASHER-HARDENED-M8	16		

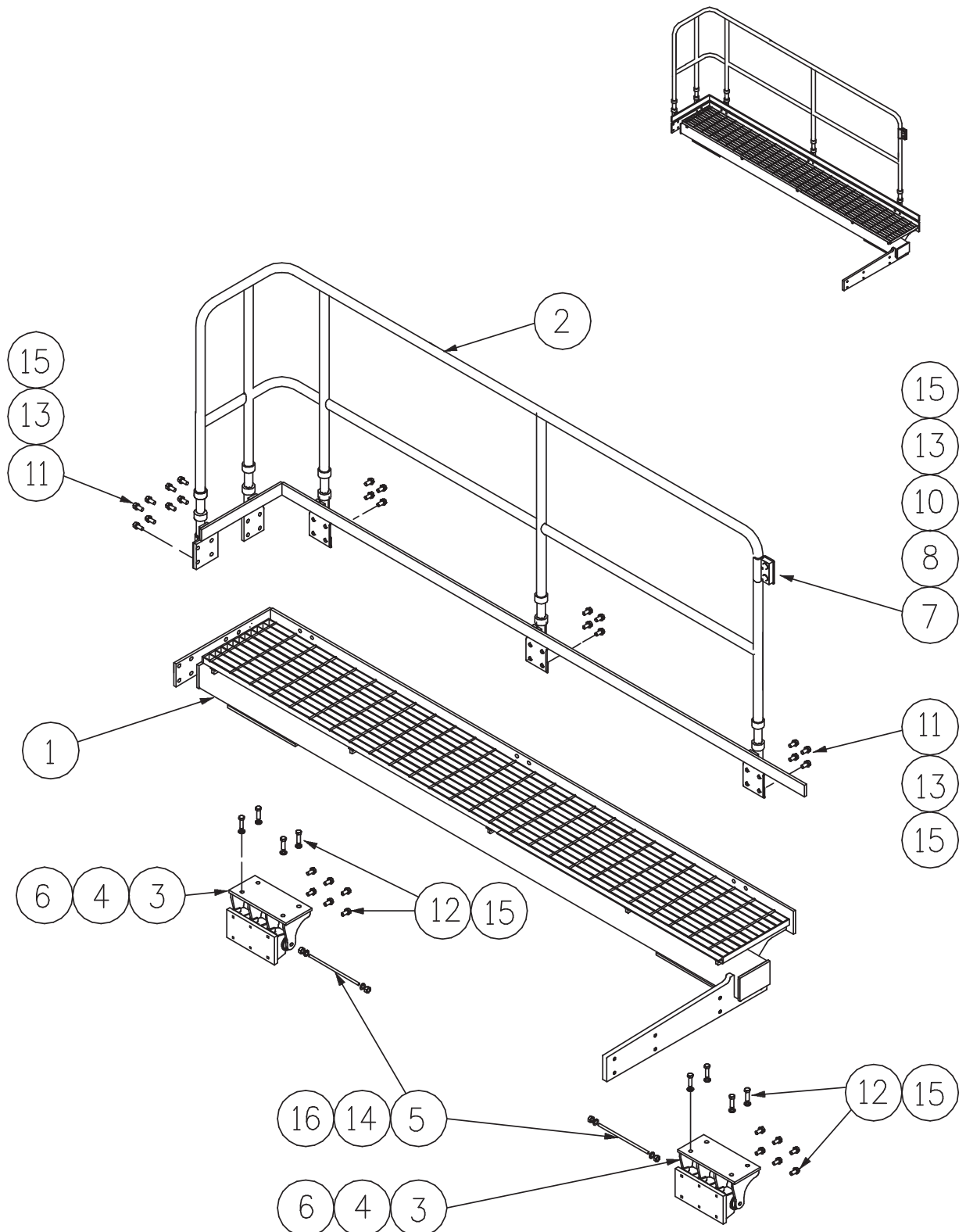
NOTE : 21914A - Anti vibration Assy. Includes Items 6,7,18,22 & 26)

FOLDING LADDER

Caterpillar D10T Dozer



Section 5-2 Landing Assembly RHS   **PS- 22284A**
See Parts List Page 25



FOLDING LADDER

Caterpillar D10T Dozer



Section 5-2 Landing Assembly RHS PS- 22284A

See Drawing Page 24

Item	Part No.	Part Name	Qty		
1	PS-22-284	LANDING ASSEMBLY RHS	1		
2	PS-22285	HANDRAIL RHS	1		
3	PS-22086	ISOLATOR PIN BRACKETS	2		
4	PS-21930A	ISOLATOR MOUNTING ASSY.	6		
5	PS-21933	ISOLATOR BUSH PIN	2		
6	PS-22085-04	SIDE MOUNTING PAD	2		
7	PS-22005-01	ANGLE BRACKET	4		
8	PS-22005-03	ISOLATOR RUBBER	2		
9	PS-22005-02	ISOLATOR CLAMP	2		
10	CPS-M12X75ZP	BOLT-M12 x 75	2		
11	CPS-M12X35ZP	BOLT-M12 x 35	20		
12	CPS-M12X25ZP	BOLT-M12 x 25	20		
13	CPS-M12NZP	NUT-M12	22		
14	CPS-1/2"NN	NUT-NYLOC-1/2" UNC	4		
15	CPS-M12WH	WASHER-HARDENED-M12	64		
16	CPS-1/2"WH	WASHER-HARDENED-1/2"	4		

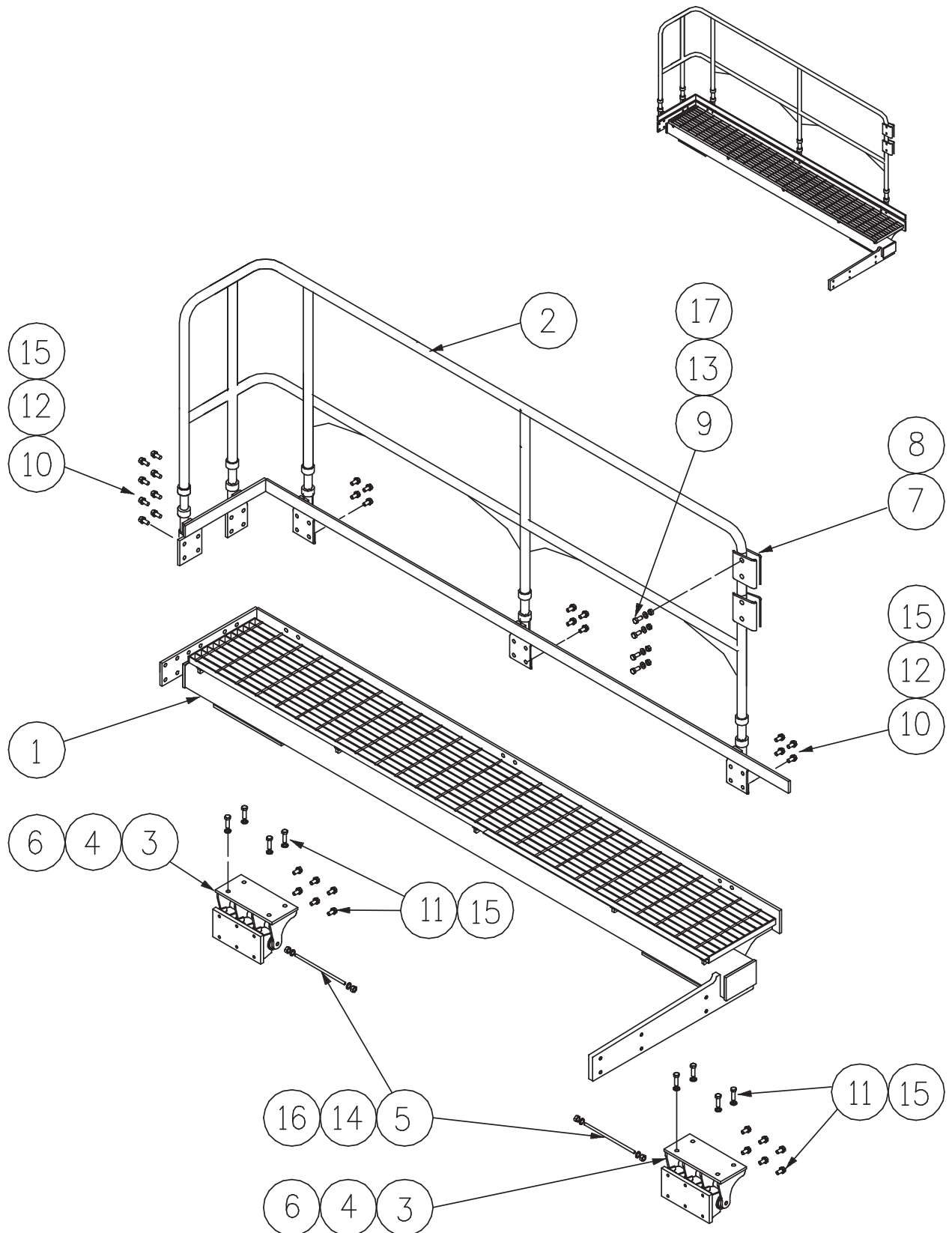
FOLDING LADDER

Caterpillar D10T Dozer



Section 5-3 Landing Assembly RHS PS- 22284A-NG Upgraded Handrails

See Parts List Page 27



FOLDING LADDER

Caterpillar D10T Dozer



Section 5-3 Landing Assembly RHS PS- 22284A-NG **Upgraded Handrails**

See Drawing Page 26

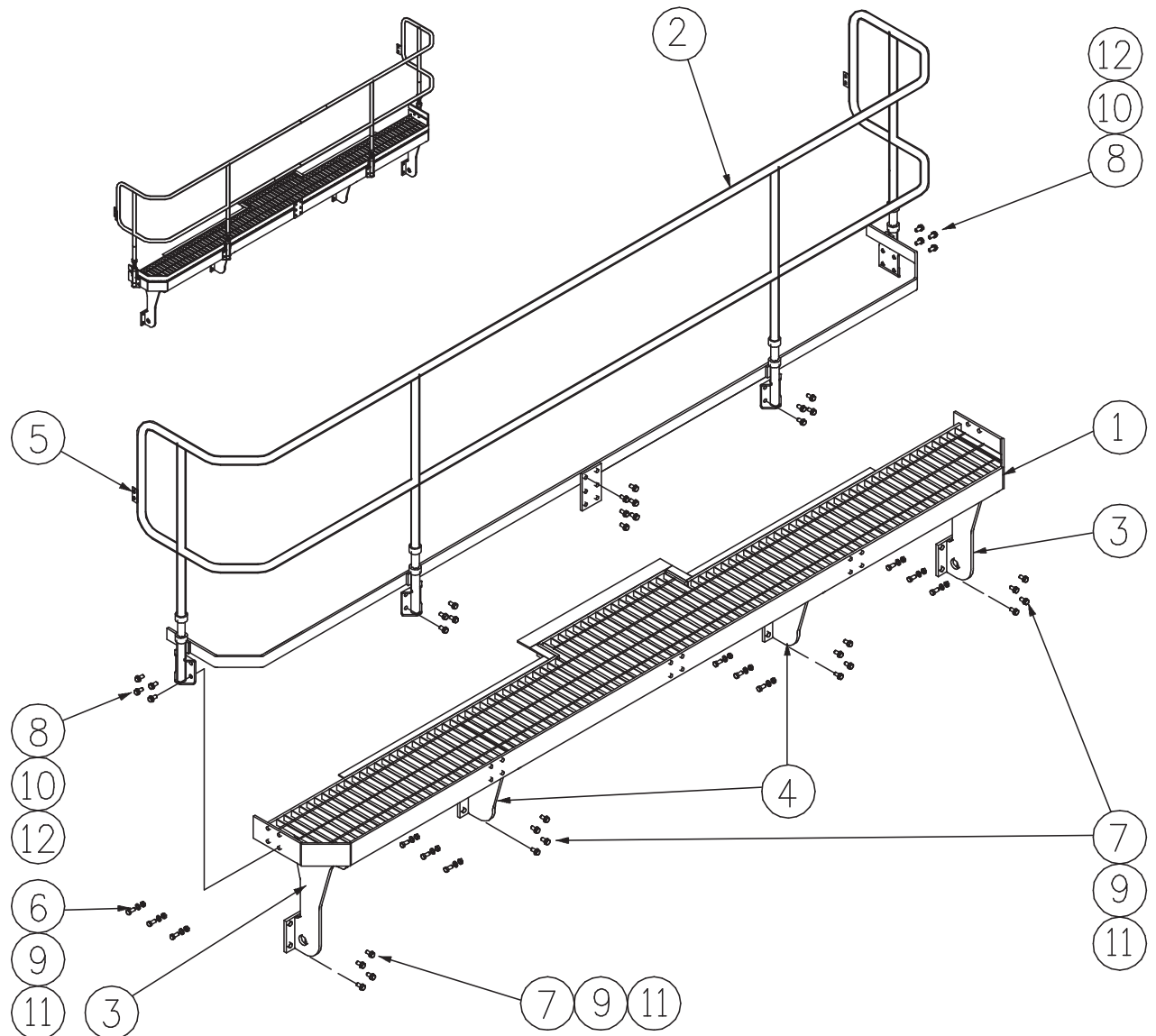
Item	Part No.	Part Name	Qty		
1	PS-22-284	LANDING ASSEMBLY RHS	1		
2	PS-22285-NG	HANDRAIL RHS- NEW GENERATION	1		
3	PS-22086	ISOLATOR PIN BRACKETS	2		
4	PS-21930A	ISOLATOR MOUNTING ASSY.	6		
5	PS-21933	ISOLATOR BUSH PIN	2		
6	PS-22085-04	SIDE MOUNTING PAD	2		
7	PS-HRI-A06	HANDRAIL POST - DOUBLE CLAMP ASSY.	2		
8	PS-HRI-C11	RUBBER HOSE Pirtek IRR-032 x 120	4		
9	CPS-M10X75ZP	BOLT-M10 x 75	4		
10	CPS-M12X35ZP	BOLT-M12 x 35	20		
11	CPS-M12X25ZP	BOLT-M12 x 25	20		
12	CPS-M12NZP	NUT-M12	20		
13	CPS-M10NN	NUT-NYLOC-M10	4		
14	CPS-1/2"NN	NUT-NYLOC-1/2" UNC	4		
15	CPS-M12WH	WASHER-HARDENED-M12	60		
16	CPS-1/2"WH	WASHER-HARDENED-1/2"	4		
17	CPS-M10WH	WASHER-HARDENED-M10	8		

FOLDING LADDER

Caterpillar D10T Dozer



Section 5-4 Landing Assembly - Rear PS- 22282A



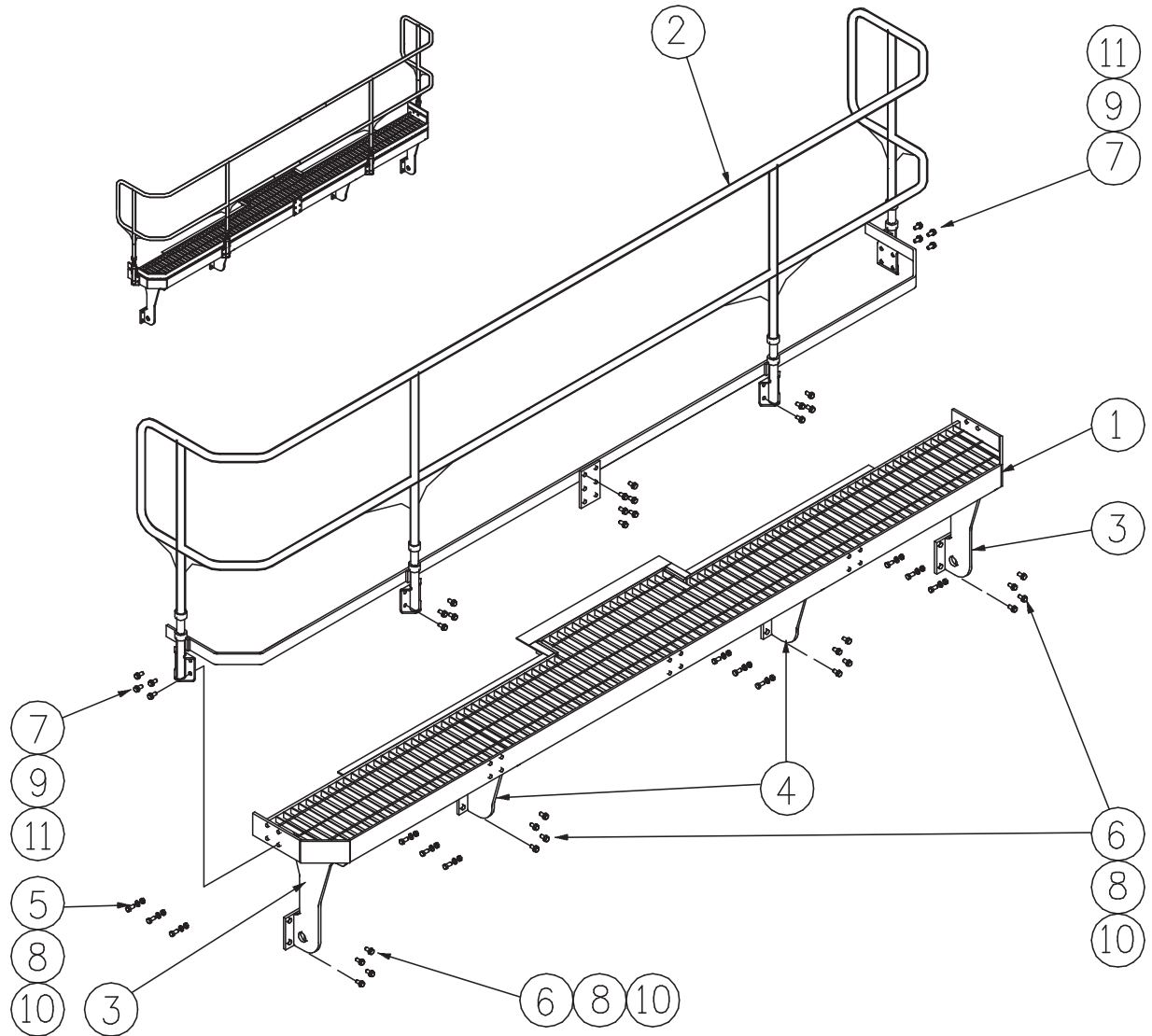
Item	Part No.	Part Name	Qty		
1	PS-22282	LANDING - REAR	1		
2	PS-22283	HANDRAILS- REAR	1		
3	S-22089-99	OUTER WALKWAY MOUNTING	2		
4	PS-22089-98	INNER WALKWAY MOUNTING	2		
5	PS-22089-99	ANGLE BRACKET	2		
6	CPS-M16X50ZP	BOLT-M16 x 50	12		
7	CPS-M16X35ZP	BOLT-M16 x 35	16		
8	CPS-M12X35ZP	BOLT-M12 x 35	22		
9	CPS-M16NZP	NUT-M16	12		
10	CPS-M12NZP	NUT-M12	22		
11	CPS-M16WH	WASHER-HARDENED-M16	40		
12	CPS-M12WH	WASHER-HARDENED-M12	42		

FOLDING LADDER

Caterpillar D10T Dozer



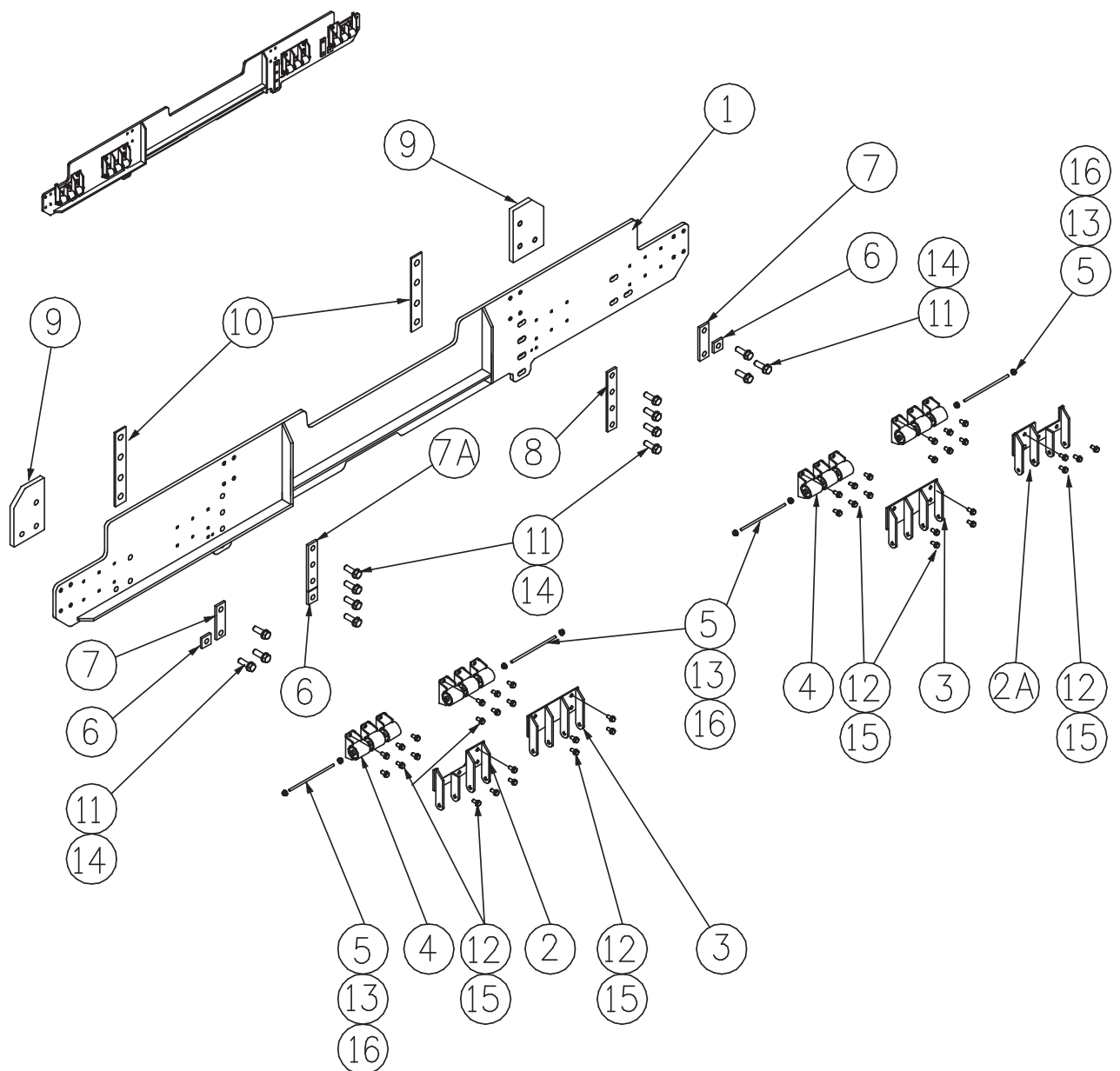
Section 5-4 Landing Assembly-Rear PS- 22282A-NG **Upgraded Handrails**



Item	Part No.	Part Name	Qty		
1	PS-22282	LANDING - REAR	1		
2	PS-22283-NG	HANDRAILS- REAR- NEW GENERATION	1		
3	PS-22089-99	OUTER WALKWAY MOUNTING	2		
4	PS-22089-98	INNER WALKWAY MOUNTING	2		
5	CPS-M16X50ZP	BOLT-M16 x 50	12		
6	CPS-M16X35ZP	BOLT-M16 x 35	16		
7	CPS-M12X35ZP	BOLT-M12 x 35	22		
8	CPS-M16NZP	NUT-M16	12		
9	CPS-M12NZP	NUT-M12	22		
10	CPS-M16WH	WASHER-HARDENED-M16	40		
11	CPS-M12WH	WASHER-HARDENED-M12	44		

**POWER
STEP**

See Parts List Page 31



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Caterpillar D10T Dozer



Section 5-5 Spreader Assembly PS- 22287A- D10T

See Drawing Page 30

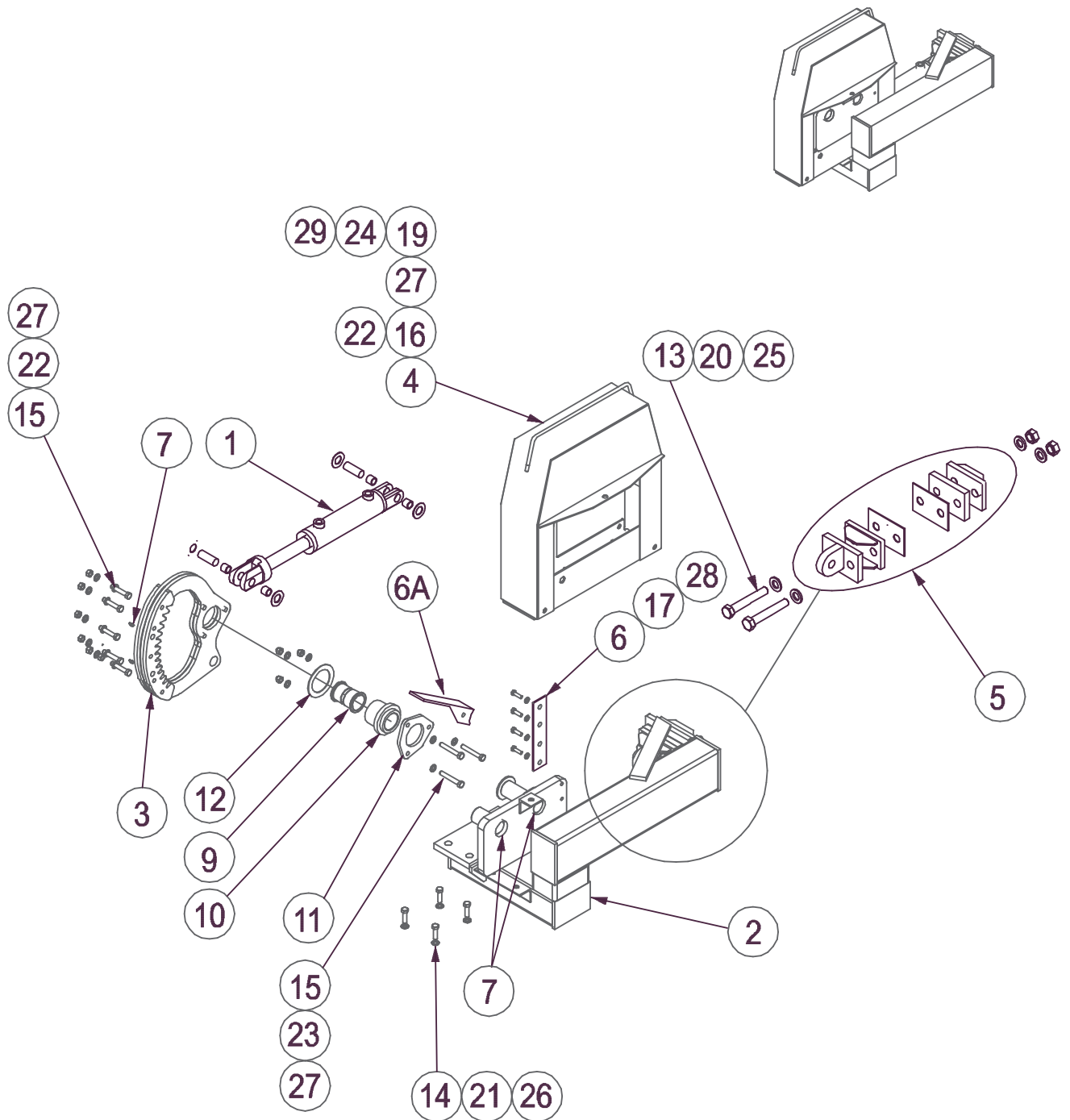
Item	Part No.	Part Name	Qty		
1	PS-22287	SPREADER	1		
2	PS-21931 98	ISOLATOR PIN BRACKET-OUTER LHS	1		
2A	PS-21931-97	ISOLATOR PIN BRACKET-OUTER RHS	1		
3	PS-21931-99	ISOLATOR PIN BRACKET-INNER	2		
4	PS-21930A	ISOLATOR MOUNTINGS	12		
5	PS-21933	ISOLATOR BUSH PIN	4		
6	PS-22281-04	WASHER PLATE - (1 Hole)	3		
7	PS-22281-03	WASHER PLATE - (2 Holes)	2		
7A	PS-22281-02	WASHER PLATE - (3 Holes)	1		
8	PS-22281-01	WASHER PLATE - (4 Holes)	1		
9	PS-22085-03	MOUNT BLOCK REAR OUTER	2		
10	PS-22085-01	MOUNT BLOCK REAR INNER	2		
11	PS-M20X60ZP	BOLT-M20 x 60	14		
12	CPS-M12X25ZP	BOLT-M12 x 25	40		
13	CPS-1/2"NN	NUT-NYLOC-1/2" UNC	8		
14	PS-M20WH	WASHER-HARDENED-M20	14		
15	CPS-M12WH	WASHER-HARDENED-M12	40		
16	CPS-1/2"WH	WASHER-HARDENED-1/2"	8		

FOLDING LADDER

Caterpillar D10T Dozer



Section 5-6 Drive Unit Assembly



FOLDING LADDER

Caterpillar D10T Dozer



Section 5-6 Drive Unit Assembly

See Drawing Page 32

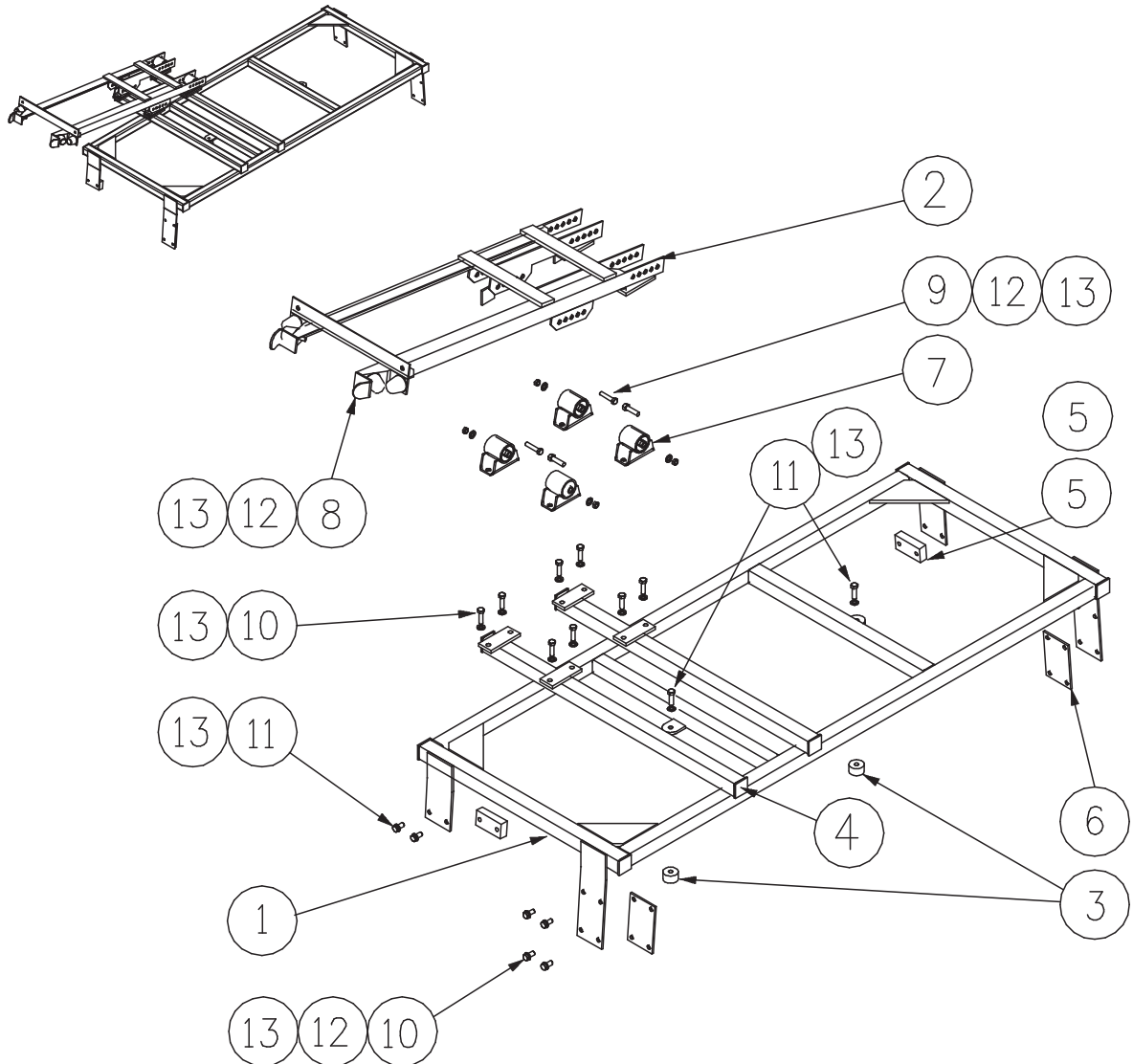
Item	Part No.	Part Name	Qty		
1	PS-63014	HYDRAULIC CYLINDER (Refer Page 22)	1		
2	PS-21974	DRIVE MOUNTING FRAME	1		
3	PS-21959	SECTOR GEAR	1		
4	PS-21984	DRIVE GUARD	1		
5	PS-21954	ACTUATOR CYL. MOUNTING ASSEMBLY	1		
6	PS-21991-02	MOUNTING BAR-PROXIMITY SWITCH	1		
6A	PS-21991-01	STRIKER	1		
7	PS-61006-2	GREASE NIPPLE M6 STR.	4		
8	PS-21940-03	PIVOT PIN KEEPER PLATE	1		
9	PS-21959-09	SECTOR GEAR BUSH	2		
10	PS-21959-08	SECTOR GEAR HUB	1		
11	PS-21959-05	CLAMP RING	1		
12	PS-21959-06	SPACER RING	1		
13	PS-M24X120ZP	BOLT-M24 x 120	2		
14	CPS-M20X65ZP	BOLT-M20 x 65	4		
15	CPS-M12X70ZP	BOLT-M12 x 70	8		
16	CPS-M12X25ZP	BOLT-M12 x 25	10		
17	CPS-M10X30ZP	BOLT-M10 x 30	4		
18	CPS-M10X15ZP	BOLT-M10 x 15	4		
19	CPS-M5X15ZP	BOLT-M5 x 15	6		
20	PS-M24NN	NUT-NYLOC-M24	2		
21	PS-M20NZP	NUT-M20	4		
22	CPS-M12NZP	NUT-M12	14		
23	CPS-M12NN	NUT-NYLOC-M12	3		
24	CPS-M5NN	NUT-NYLOC-M5	6		
25	CPS-M24WH	WASHER-HARDENED-M24	4		
26	CPS-M20WH	WASHER-HARDENED-M20	8		
27	CPS-M12WH	WASHER-HARDENED-M12	20		
28	CPS-M10WH	WASHER-HARDENED-M10	12		
29	CPS-M5WH	WASHER-HARDENED-M5	12		

FOLDING LADDER

Caterpillar D10T Dozer



Section 5-7 PROP Assembly PS- 22091A



Item	Part No.	Part Name	Qty		
1	PS-22091	PROP MOUNTING FRAME	1		
2	PS-21945	PROP	1		
3	PS-22091-16	ROOF BUTTON	2		
4	PS-22087	PROP MOUNTING BEAM	2		
5	PS-22091-14	BOLTING PAD	2		
6	PS-22091-13	SPACER	2		
7	PS-21930A	ISOLATOR MOUNTING	4		
8	PS-40003	BUFFER	4		
9	CPS-M12X120	BOLT M12 x 120	4		
10	CPS-M12X40ZP	BOLT-M12 x 40	8		
11	CPS-M12X25ZP	BOLT-M12 x 25	14		
12	CPS-M12ZP	NUT-M12	20		
13	CPSM12WH	WASHER-HARDENED-M12	38		

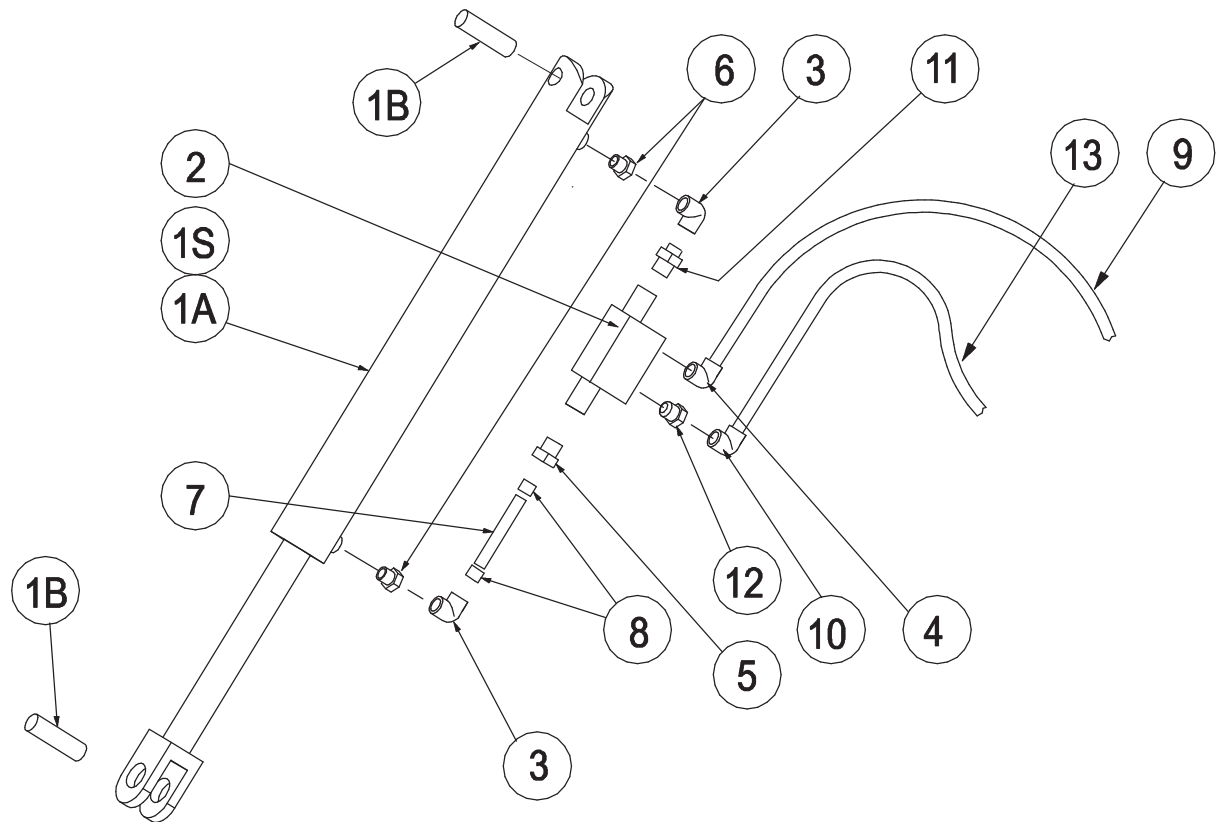
FOLDING LADDER

Caterpillar D10T Dozer



Section 5-8 Hydraulic Cylinder PS-63014-AH

Incl. Items 1A,1B,2,3,4,5,6,7,8,10,11,12.



Item	Part No.	Part Name	Qty		
1A	PS-63014A	HYDRAULIC CYLINDER (INC. REDUCERS)	1		
1B	PS-63014-P	PIN - CYLINDER- (WITH RETAINER)	2		
1S	PS-63011K	SEAL KIT (NOT SHOWN)	1		
2	PS-63201	VALVE - PILOT OPERATED LOCKING	1		
3	PS-61158-0.30	FITTING - RESTRICTION 90 DEG	2		
4	PS-61154	FITTING - ELBOW- O RING 1/4BSPPx9/16" JIC	1		
5	PS-61157	FITTING - O RING 1/4BSPPx 9/16" JIC	1		
6	PS-61163	REDUCER JIC x BSPP	2		
7	PS-61160	TUBE	2		
8	PS-61147	FERRULES/NUTS 2 x each	1		
9	PS-60051-2.8	HOSE- HYDR. (9/6" JIC SWIVEL FITTING 2.8M)	1		
10	PS-61151	FITTING-ELBOW 7/16" JIC	1		
11	PS-61145	FITTING-SWIVEL 9/16" JIC	1		
12	PS-61153	FITTING-O RING 1/4" BSP x 7/16" JIC	1		
13	PS-60050-2.8	HYDR. HOSE 7/16" SWIVEL FITTINGS	1		

FOLDING LADDER

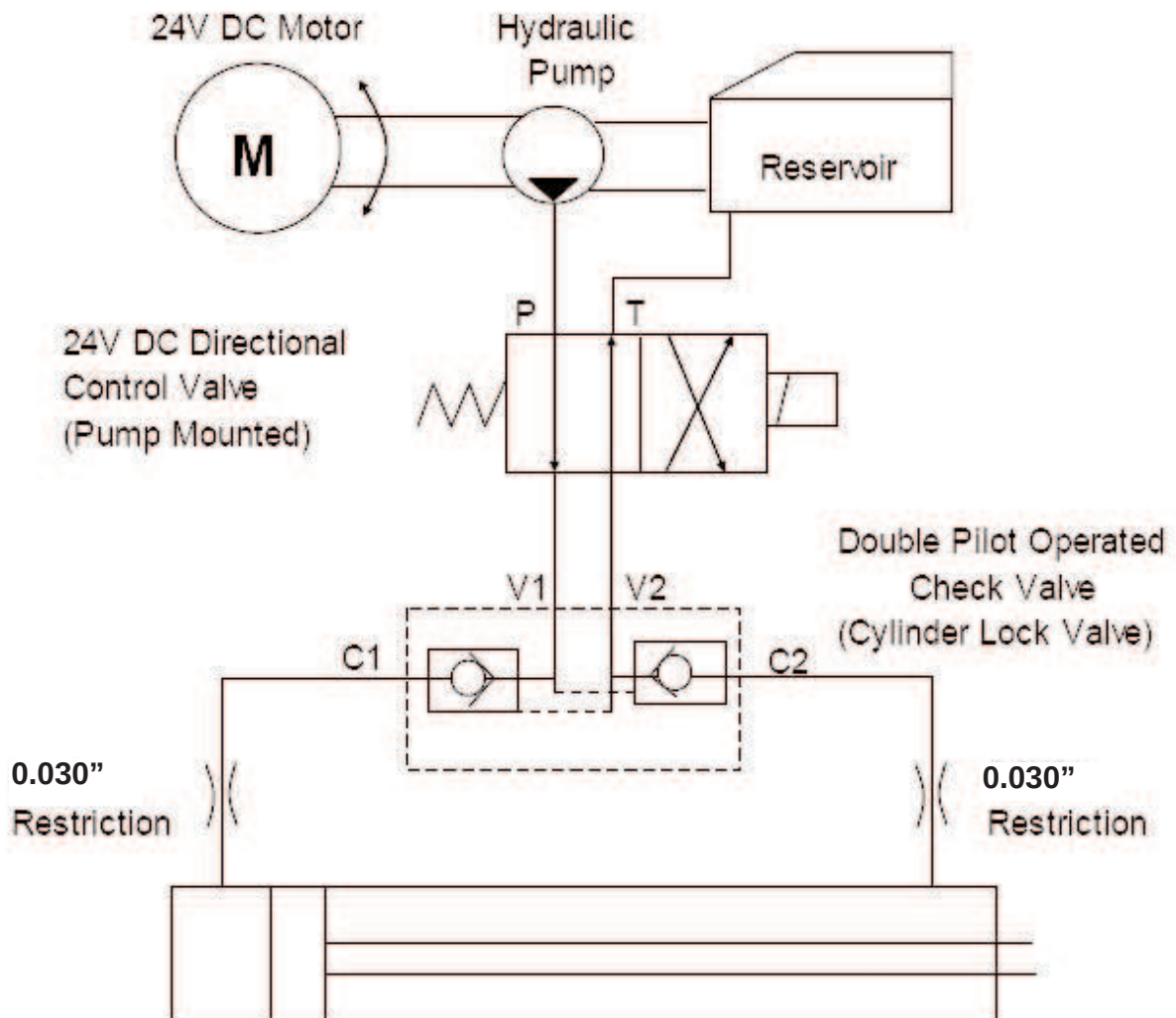
Caterpillar D10T Dozer



Section 5-8 Hydraulic Cylinder (Valve Diagram)

See also Drawing Page 35

Double Acting Hydraulic System with
directional Control Valve and Cylinder
Lock Valve

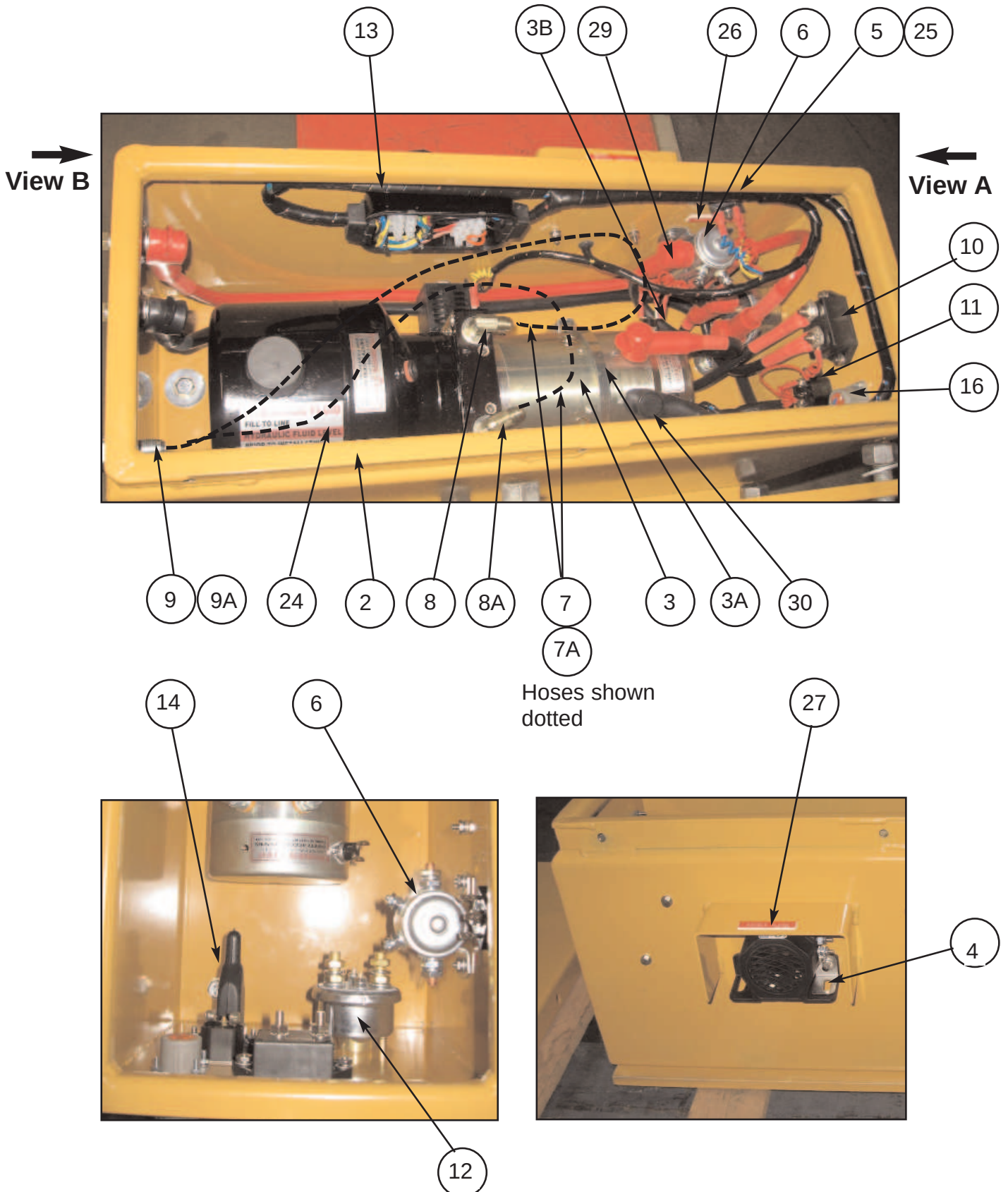


FOLDING LADDER Caterpillar D10T Dozer



Section 5-9 Power Pack PS-80103A-SLD

See Parts List Pg 39

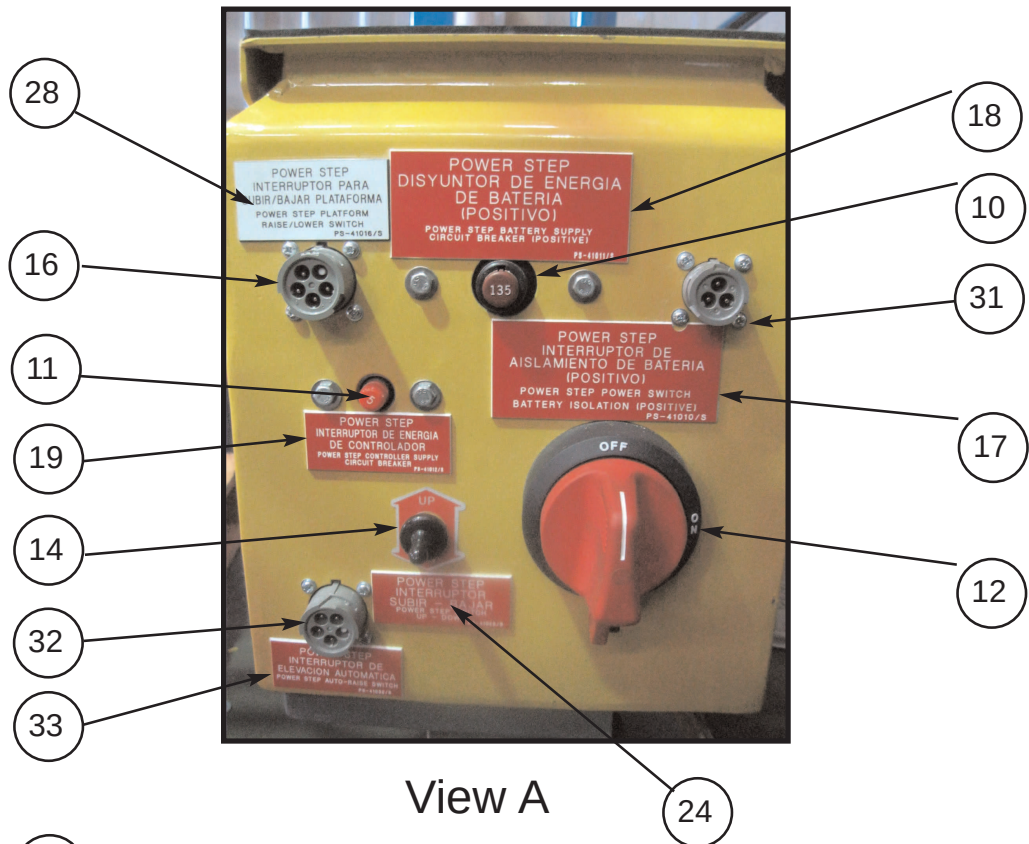


FOLDING LADDER Caterpillar D10T Dozer

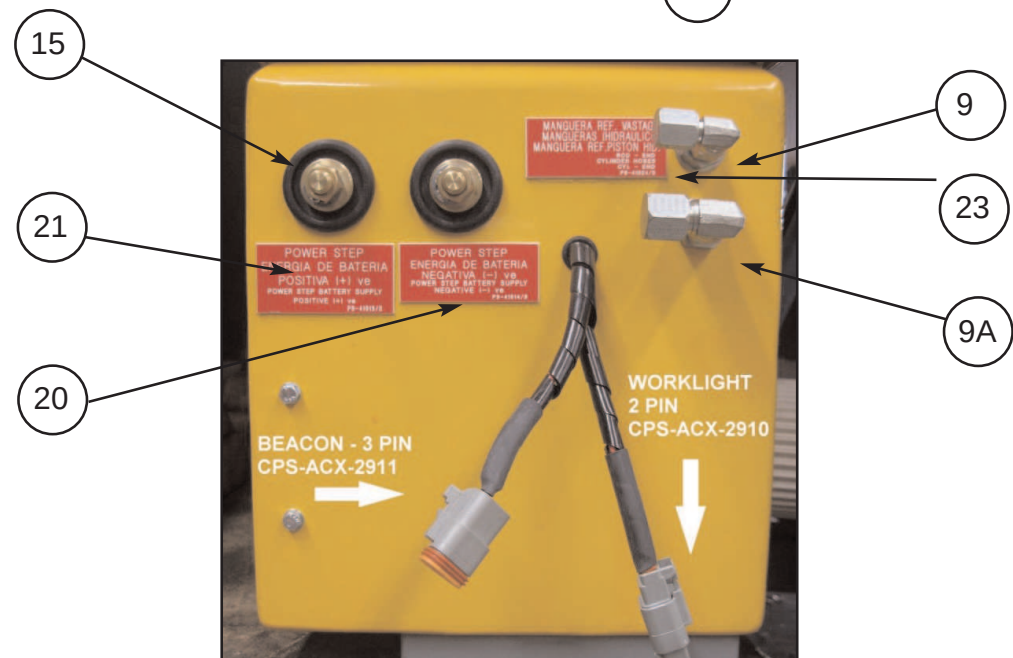


Section 5-9 Power Pack PS-80103A-SLD

See Parts List Pg 39



View A



View B

NOTE.

**THE RELIEF PRESSURE OF THE POWERPACK IS TO BE SET TO 2800SI.
IF THE POWERPACK IS REPLACED, THIS RELIEF PRESSURE WILL NEED TO BE
RESET USING INLINE GAUGES.
FAILURE TO DO SO MAY RESULT IN ACCIDENT OR INJURY**

FOLDING LADDER

Caterpillar D10T Dozer



Section 5-9 Power Pack (Electrical Controls & Accessories)

See Photos Pg 37 & 38

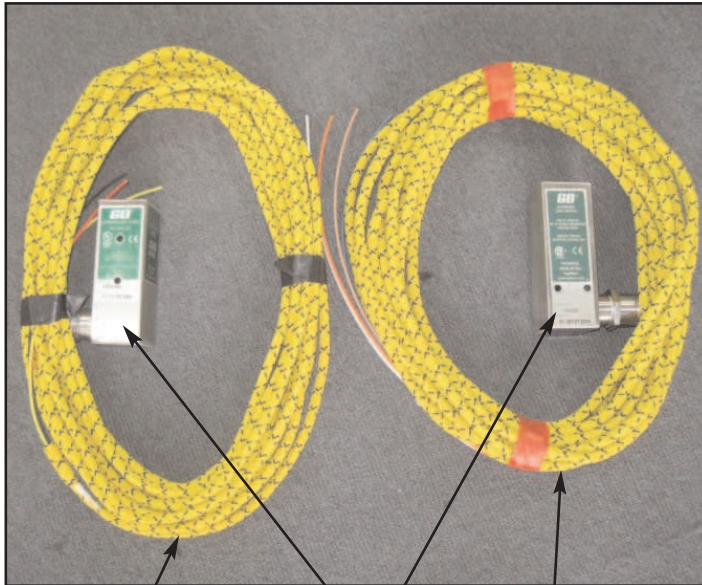
Item	Part No.	Part Name	Qty		
1	PS-80103A-SLD	POWER PACK ASSEMBLY	1		
2	PS-21107-METAL	MOTOR ENCLOSURE- SEALED ST/ST	1		
3	PS-80103A	POWER PACK	1		
3A	PS-80103-CLAMP	CLAMP ELECTRIC MOTOR	1		
3B	PS-84201-100	HEAT SENSOR	1		
4	PS-82415	AUDIBLE ALARM	1		
5	PS-84214	BRIDGE RECTIFIER	1		
6	PS-82492	SOLENOID 24V START MOTOR	1		
7	PS-60051-900MM 9/16"	HYDR. HOSES 9/16" JIC STRAIGHT SWIVEL	1		
7A	PS-60050-900MM 7/16"	HYDR. HOSES 7/16" JIC STRAIGHT SWIVEL	1		
8	PS-61152	HYDRAULIC FITTING 9/16"	1		
8A	PS-61150	HYDRAULIC FITTING 7/16"	1		
9	PS-61177	HYDRAULIC FITTING 9/16"	1		
9A	PS-61176	HYDRAULIC FITTING 7/16"	1		
10	PS-84213	135A CIRCUIT BREAKER	1		
11	PS-84212	5A CIRCUIT BREAKER	1		
12	PS-84303	ISOLATION SWITCH	1		
13	PS-1712080	SEALED WIRING BOX	1		
14	PS-73012	TOGGLE SWITCH KIT	1		
15	PS-82493	BATTERY FEED STUDS	2		
16	PS-HD10-5-16P	5 PIN SOCKET	1		
17	PS-41010	DECAL-Battery Isolation	1		
18	PS-41011	DECAL-Battery Supply C/B-135A	1		
19	PS-41012	DECAL-Controller Supply C/B-10A	1		
20	PS-41013	DECAL-Battery Supply-Positive	1		
21	PS-41014	DECAL-Battery Supply-Negative	1		
22	PS-41023	DECAL-Up/Down	1		
23	PS-41024	DECAL HYDRAULIC-HOSES	1		
24	PS-41041	DECAL OIL TANK	1		
25	PS-41019	DECAL BRIDGE RECTIFIER	1		
26	PS-41017	DECAL SOLENOID	1		
27	PS-41018	DECAL ALARM	1		
28	PS-41016	DECAL RAISE/LOWER SWITCH	1		
29	PS-73010	RUBBER BOOT RED	6		
30	PS-73009	RUBBER BOOT BLACK	3		
31	PS-HD10-3-16P	3 PIN SOCKET (PARK BREAK)	1		
32	PS-HD10-5-16P	5 PIN SOCKET (AUTO-RAISE)	1		
33	PS-41032	DECAL AUTO-RAISE SOCKET	1		
34	PS-60051-2.8M	HYDRAULIC HOSE 9/16" x 2.8M	1		Not Shown
35	PS-60050-2.8M	HYDRAULIC HOSE 7/16" x 2.8M	1		Not Shown

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Section 5.10 Electrical Controls

Proximity Switch Assembly Mounted on Fixed Landing



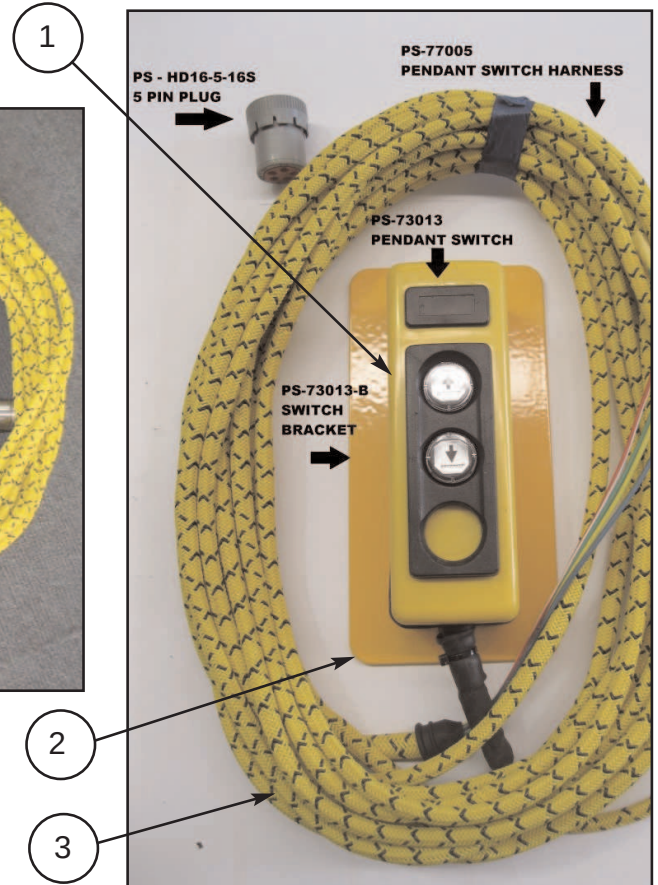
5

6

4

Cab Harness & Equipment Refer Wiring Harness Drawings

Control Pendant Switch Mounted on Handrail



1

2

3



6

7

FOLDING LADDER

Caterpillar D10T Dozer



Section 5.10 Electrical Controls

See Photos Page 40

Item	Part No.	Part Name	Qty		
1	PS-73013	CONTROL PENDANT SWITCH	1		
2	PS-73013-B	CONTROL PENDANT BRACKET	1		
3	PS-77005	HAND RAIL SWITCH HARNESS	1		
4	PS-77009AR	AUTO RAISE HARNESS	1		Optional only
5	PS-77004	CABIN TO SWITCH HARNESS	1		
6	PS-75430	PROXIMITY SWITCH	2		1 x Optional
7	PS-77002	CABIN BOX LED LIGHT INDICATOR	1		
8	PS-77003	WIRING HARNESS IN CABIN	1		

WARNING

**LOW OR FAULTY BATTERIES WILL VOID
WARRANTY ON THE POWER PACK AND ALL
ELECTRICAL SWITCHES AND COMPONENTS**

FOLDING LADDER

Caterpillar D10T Dozer



Material Kit supplied

PS-P/PACK-ISO. KIT

