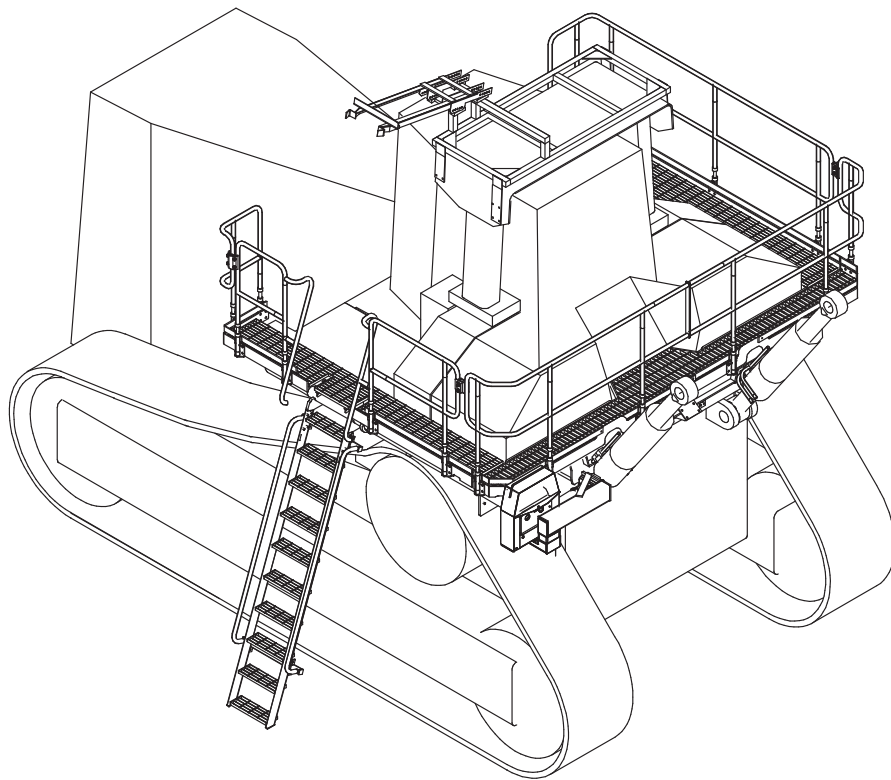




FOLDING LADDER

Manual for Cat D11R Dozer
Complete with Wrap-around Walkways



Model No. PSA-D11R-F/L & RH WW
Serial No.: D11R-RHW - ~
Date Manufactured: Oct. 2011

FOLDING LADDER

Caterpillar D11R Dozer



CONTENTS

Page 3	Section 1 <u>Installation and Mounting instructions</u>
	Installation Drawings
10	Section 2 <u>Recommended Maintenance procedure</u>
11	Section 3 <u>Operating Procedure</u>
	Section 4 <u>Drawings and Repair Parts lists</u>
12	4 Assembly Complete
13	4-1 Ladder Assembly Parts List
14	4-2 Landing Assembly LHS (+ NG Version) Parts List
18	4-3 Landing Assembly RHS (+ NG Version) Parts List
22	4-4 Landing Assembly Rear (+ NG Version) Parts List
26	4-5 Spreader Assembly Parts List
28	4-6 Drive Unit Assembly Parts List
30	4-7 PROP Assembly Parts List
31	4-8 Hydraulic Cylinder Valve Diagram Parts List
33	4-9 Power Pack Parts List
36	4-10 Electrical Controls Parts List
	Material Kit Supplied
	Wiring Diagrams

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Caterpillar D11R Dozer



Section 1 Installation Instruction Drawings

NOTE

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

PROCEDURE (Mounting blocks)

See Drawing **22 521** (Page 4)

- 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.
- 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.

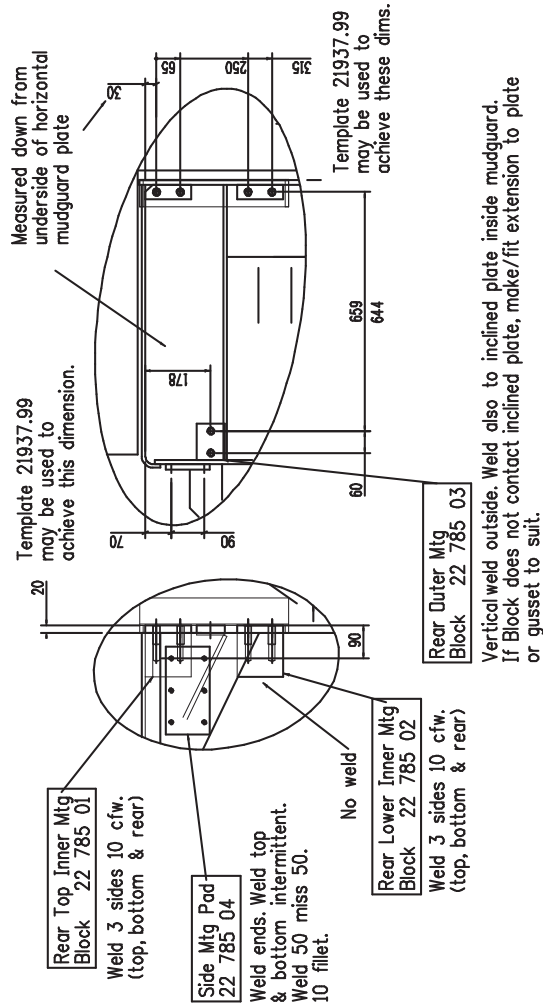
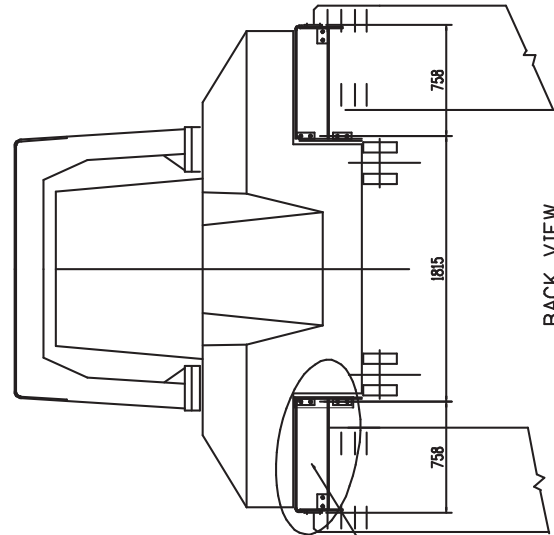
See page 5 for further Procedure.

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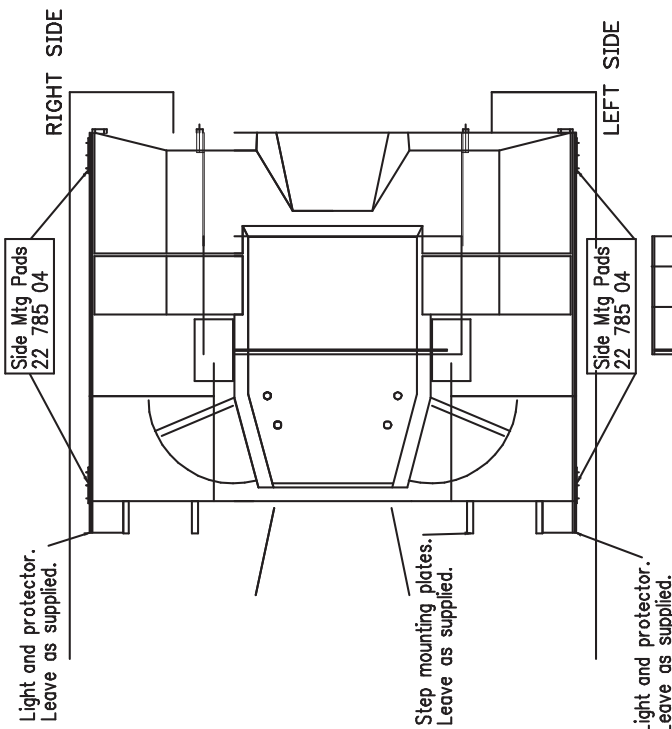
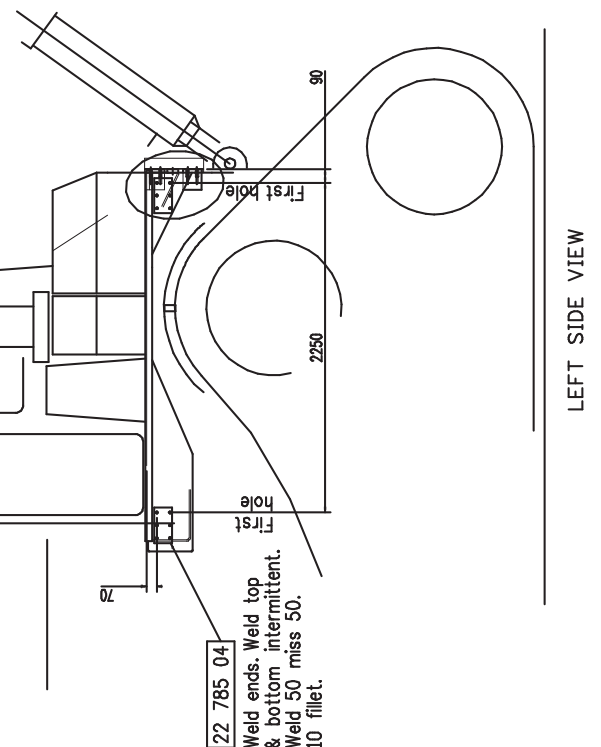
Caterpillar D11R Dozer



Installation and Mounting Instructions 22 521



Welding:
AS 1554 Cat SP, 6cfw uno.



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Caterpillar D11R Dozer



Installation and Mounting Instructions

See Drawings Page 6,7 and 8

PROCEDURE

1. Fit Mounting Blocks per Drg **22 521**
2. Per View 2, Spreader Plate: Fit Spreader Plate **22 780** to rear mounting blocks. Use Washer Plates 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. Fit Isolator Brackets: **21 930** (See Views A,2 & 3).
Fit Side Landing Beam **22 970** with Ladder Shaft and Drive already assembled,supported byisolators.
4. Fit Ladder. Using Spacers (within Actuator Cylinder Mounting **21 954**), adjust drive so gears are not loaded when ladder is lowered.
Clamp PROP Mtg Beams in position shown in View 1 and mount PROP **21 945**
Adjust position so that, with PROP attached to Isolators ladder gear drive is not loaded when ladder is fully raised. Attach PROP System Mounting Frame **21 987** atop cabin, on ROPS unless similar is already fitted by customer.
Weld Beams to Frame, 6cfw where visible from above
5. Per Views 1,4 & 6. Complete Assembly and PROP System.
6. Per View 4,5 & 6: Fit Rear Walkway. Fit Handrails.

NOTES.

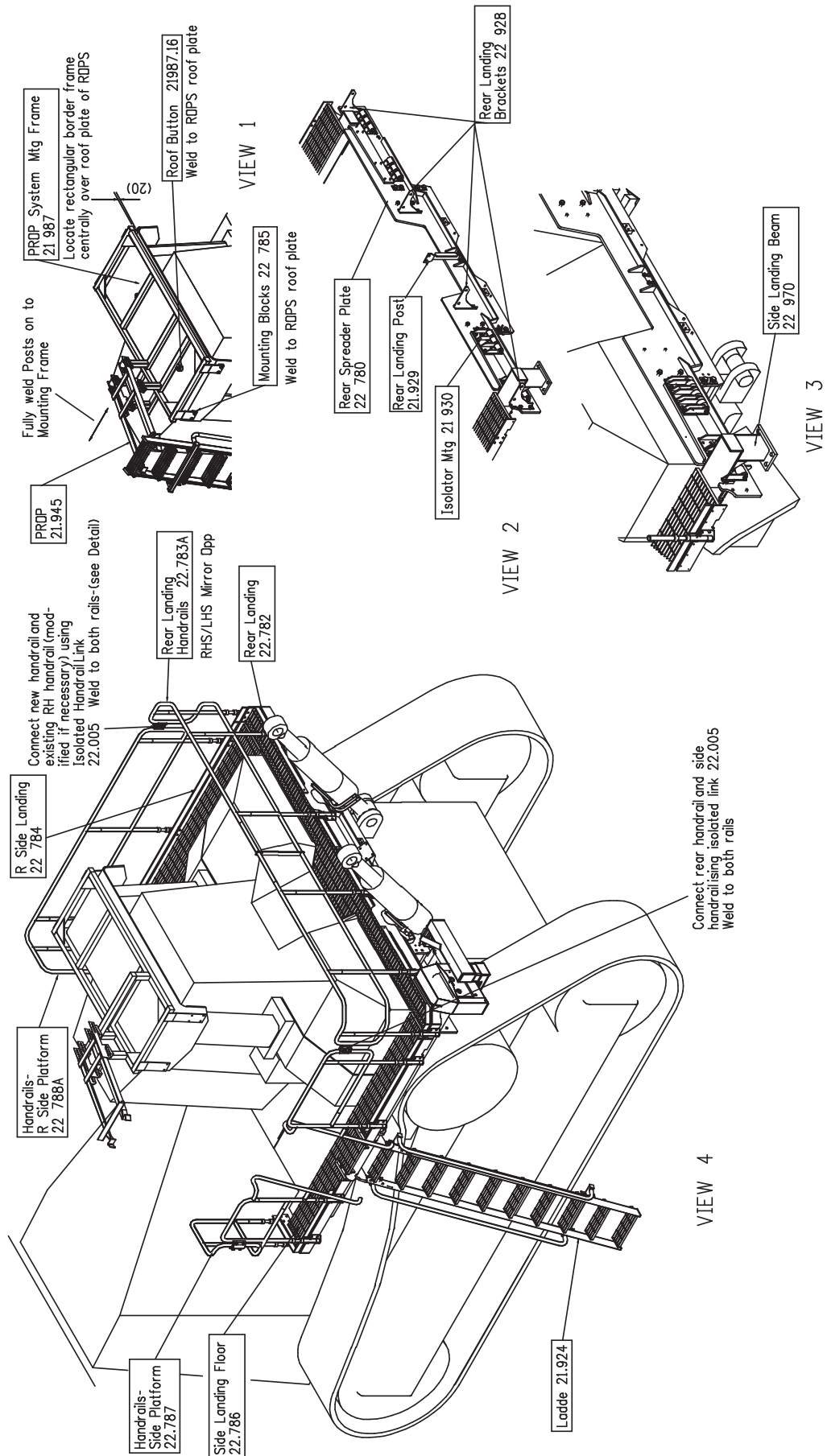
The drive, ladder stops and/or PROP system are to be adjusted so that in both the Ladder Up (Travel) position and Ladder Down (Climb) position, the actuator gears and cylinder are not loaded.

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Caterpillar D11R Dozer



Section 1 Installation Instruction Drawings - 22 520 Page 1

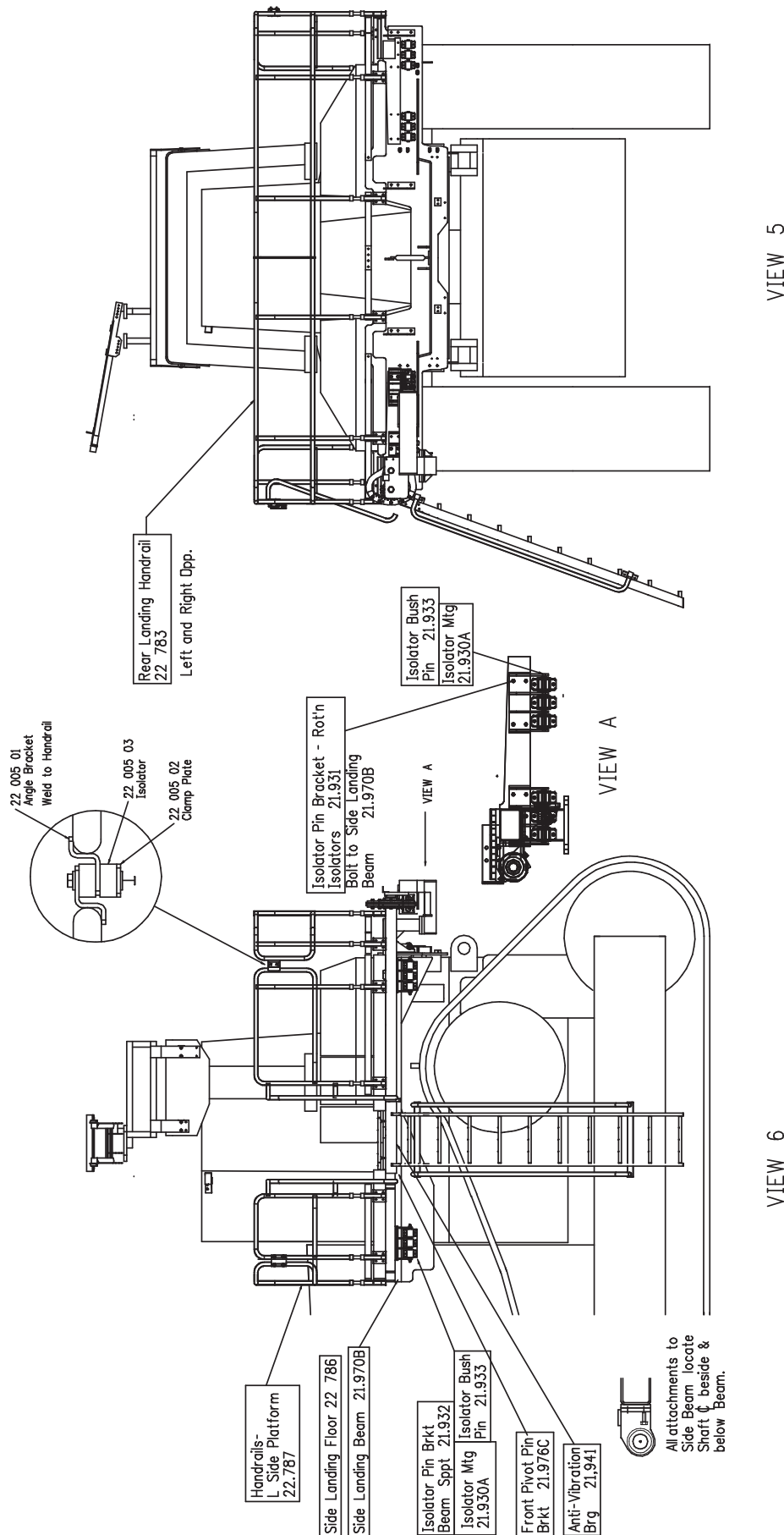


FOLDING LADDER

Caterpillar D11R Dozer



Section 1 Installation Instruction Drawings - 22.520 Page 2

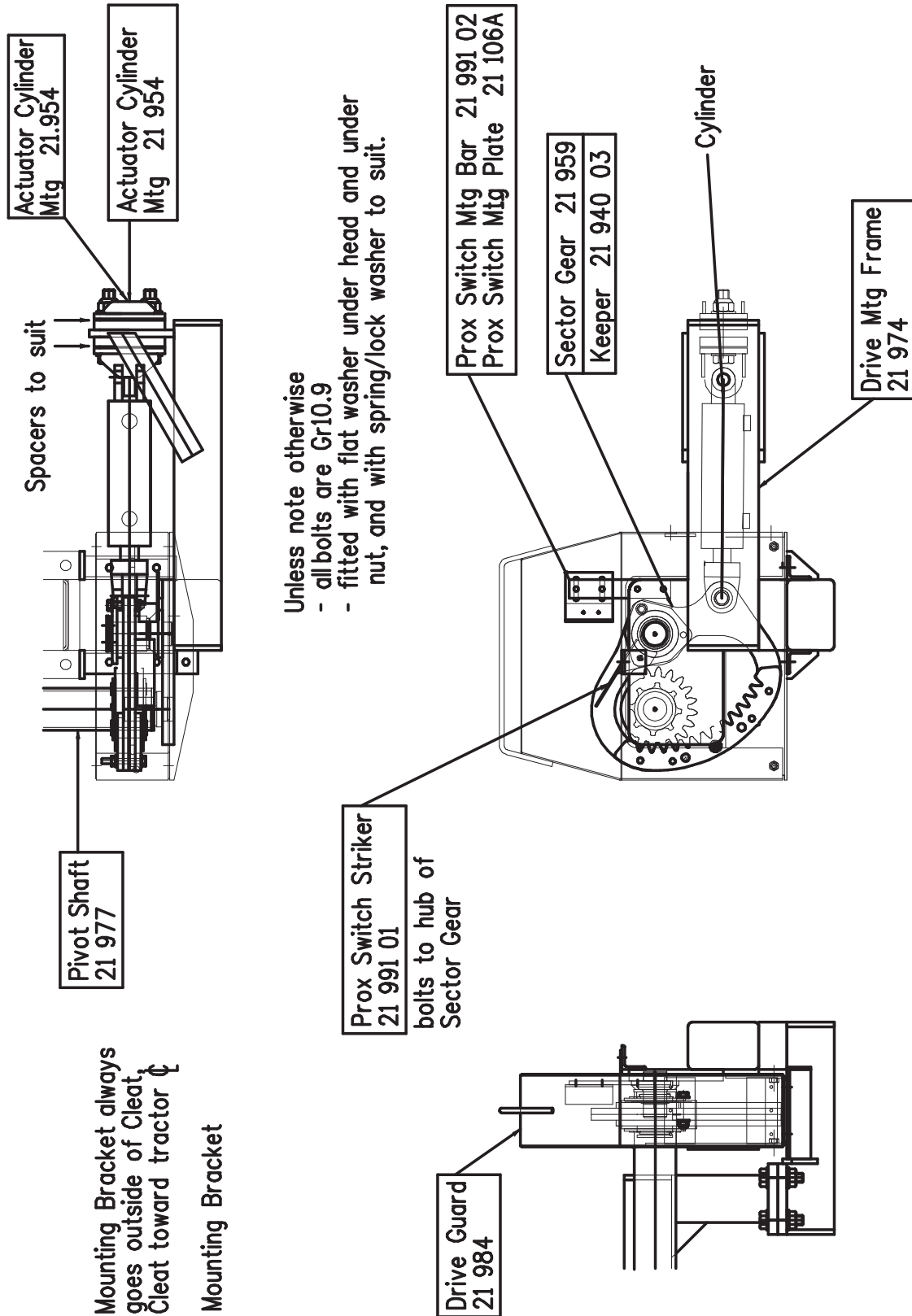


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Caterpillar D11R Dozer



Section 1 Installation Instruction Drawings - 22.520 Page 3



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Caterpillar D11R 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 platform 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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Caterpillar D11R Dozer



Section 2 Recommended Maintenance Procedure

Daily

Visually check stairway 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. (Stairway 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 stairway lowered, and accessed from under the stairway.

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

Repeat daily check as above

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Caterpillar D11R Dozer



Section 3 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 stairway 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].

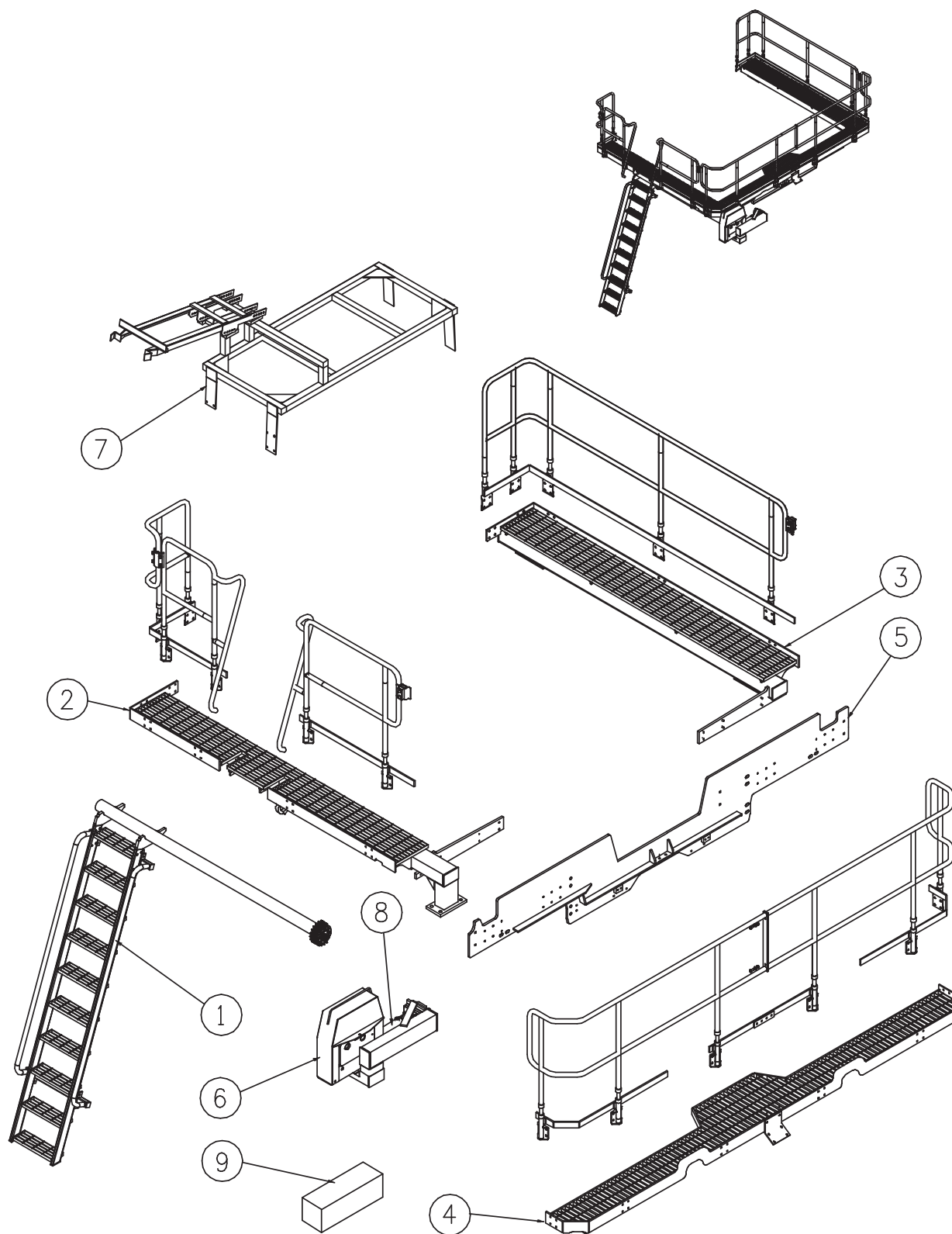
Test by raising and lowering the Power Step a couple of times and adjust again if necessary.

FOLDING LADDER

Caterpillar D11R Dozer



Section 4 Assembly Complete

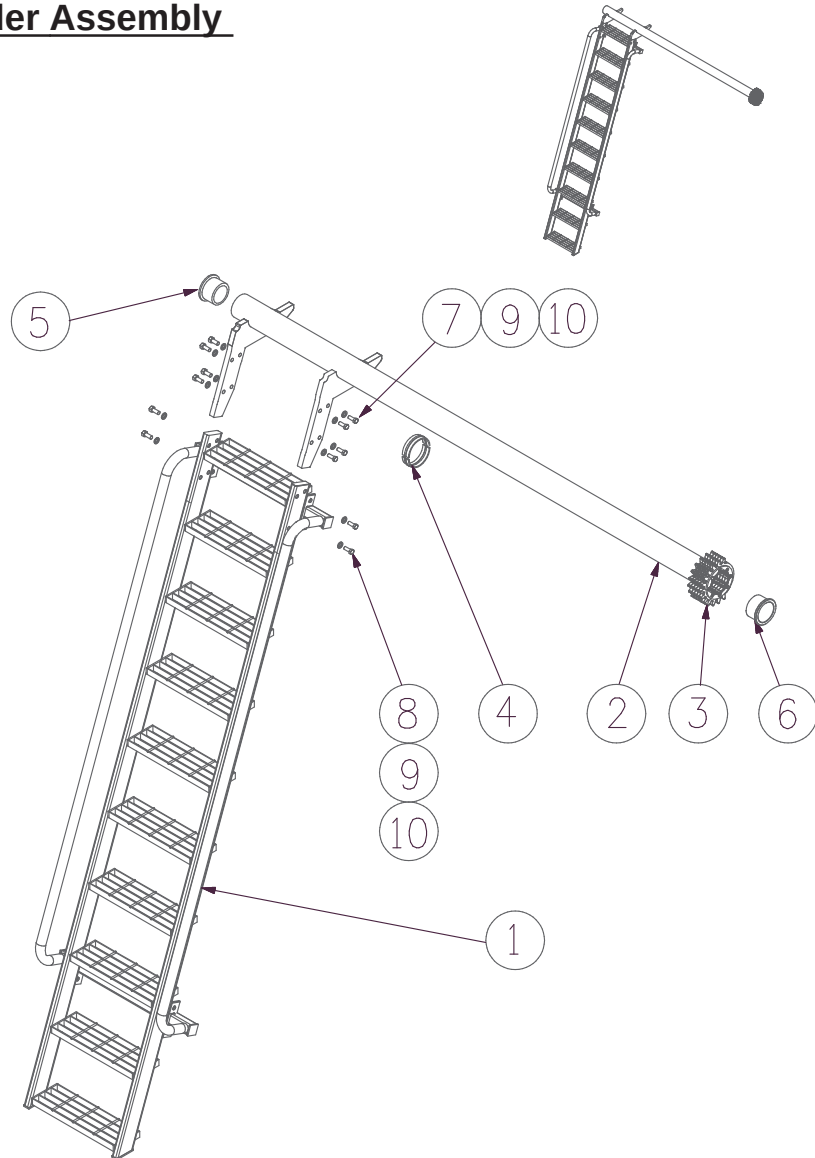


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Caterpillar D11R Dozer



Section 4-1 Ladder Assembly



Item	Part No.	Part Name	Qty		
1	PS-21924	LADDER & HANDRAIL FABRICATION	1		
2	PS-21977	ROTATION SHAFT	1		
3	PS-21958	PINION ASSEMBLY	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-M12X45	BOLT-M12 x 45	8		
8	CPS-M12X30	BOLT-M12 x 30	8		
9	CPS-M12NZP	NUT-M12	16		
10	CPS-M12WH	WASHER-M12	32		

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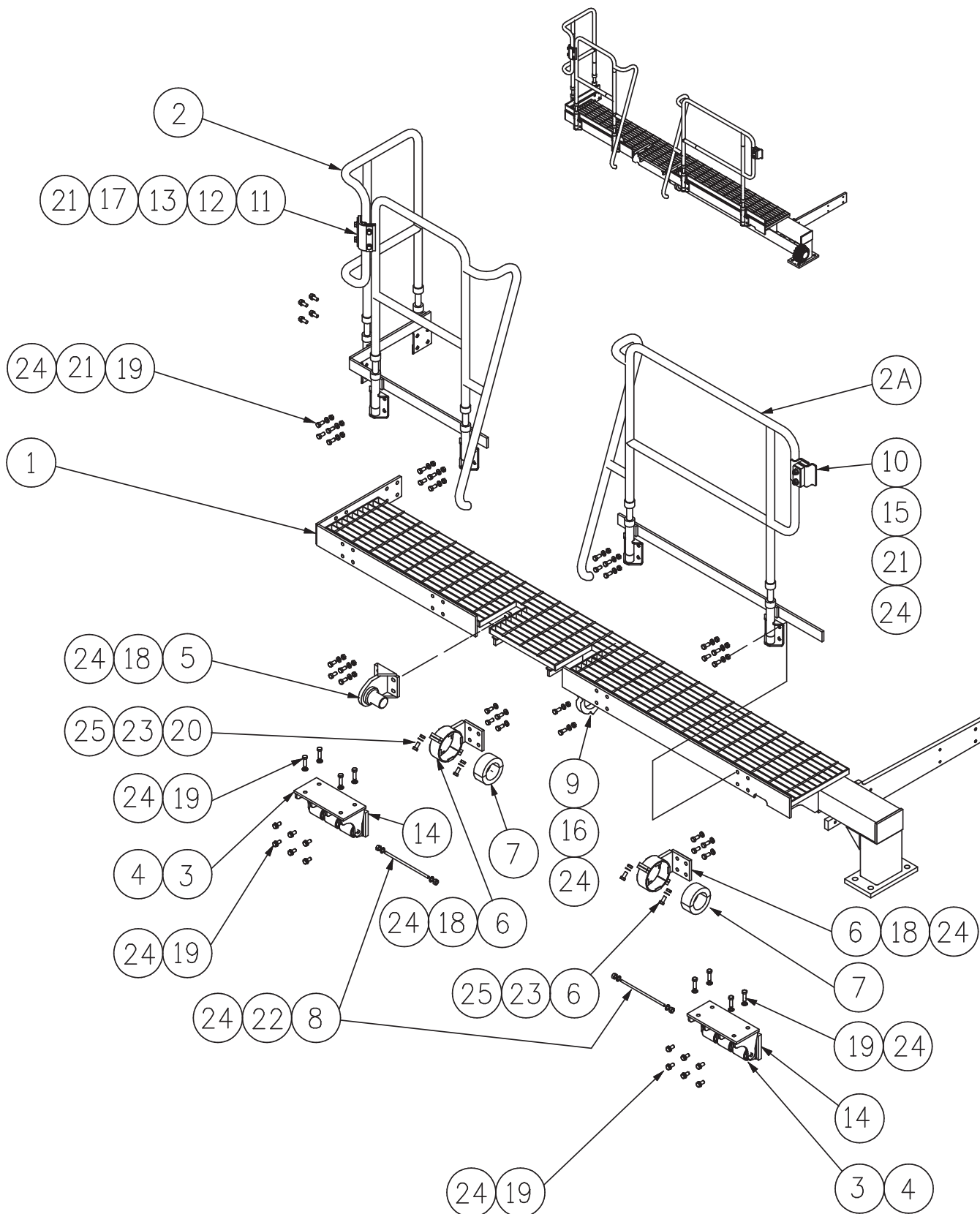
Caterpillar D11R Dozer



Section 4-2 Landing Assembly LHS.

PS-22786A-D11R

See Parts list Page 15



FOLDING LADDER

Caterpillar D11R Dozer



Section 4-2 Landing Assembly LHS.

PS-22786A-D11R

See Drawing Page 14

Item	Part No.	Part Name	Qty		
1	PS-22786	LANDING ASSY	1		
2	PS-22787A	HANDRAIL- LHS-FRONT	1		
2A	PS-22787B	HANDRAIL- LHS-REAR	1		
3	PS-21932	ISOLATOR PIN BRACKETS	2		
4	PS-21930A	ISOLATOR MOUNTING ASSY	6		
5	PS-21976	FRONT PIVOT PIN BRACKET	1		
6	PS-21941-02	ANTI VIBRATION BEARING	2		
7	PS-21941-06	RUBBER BUSH	2		
8	PS-21933	ISOLATOR BUSH PIN	2		
9	PS-21925	MIDDLE BEARING MOUNTING	1		
10	PS-22005	ISOLATED HANDRAIL LINK ASSY	1		
11	PS-22789-01	MOUNTING BAR	1		
12	PS-22789-02	CLAMP BAR	2		
13	PS-22789-03	ISOLATOR ELEMENT	1		
14	PS-22785-04	SIDE MOUNTING PAD	2		
15	CPS-M12X75ZP	BOLT-M12 x 75	2		
16	CPS-M12X65ZP	BOLT-SOCKET HEAD-M12 x 65	2		
17	CPS-M12X35ZP	BOLT-M12 x 35	28		
18	CPS-M12X30ZP	BOLT-M12 x 30	12		
19	CPS-M12X25ZP	BOLT-M12 x 25	20		
20	CPS-M8X35ZP	BOLT-M8 x 35	8		
21	CPS-M12NZP	NUT-M12	30		
22	CPS-1/2"NN	NUT-NYLOC-1/2"UNC	4		
23	CPS-M8NN	NUT-NYLOC-M8	8		
24	CPS-M12WH	WASHER-HARDENED-M12	98		
25	CPS-M8WH	WASHER-HARDENED-M8	16		

FOLDING STAIRWAY

Caterpillar D11R Dozer

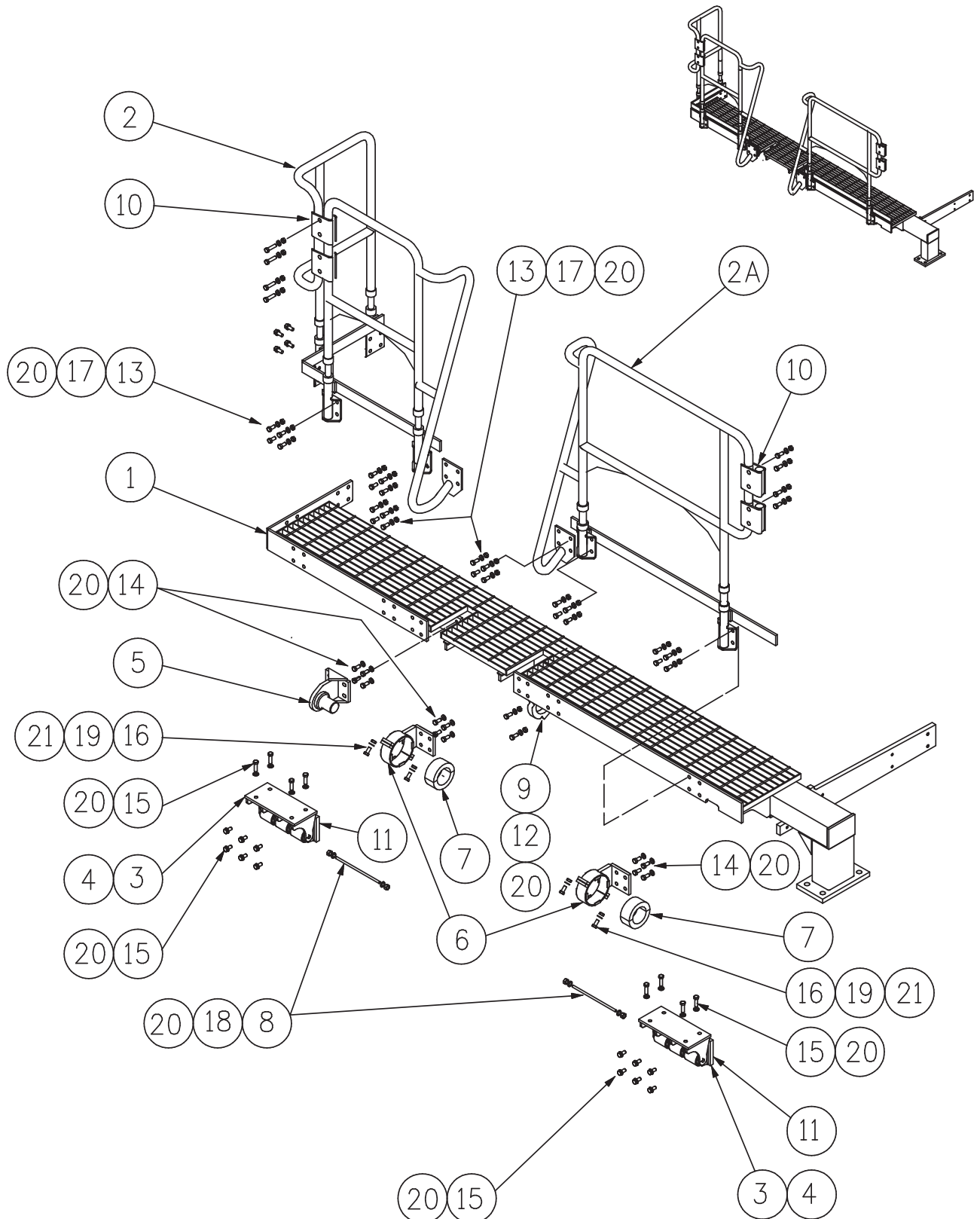


Section 4-2 Landing Assembly LHS.

See Parts Page 17

PS-22786A-D11R-NG

Updated Handrails



FOLDING STAIRWAY

Caterpillar D11R Dozer



Section 4-2 Landing Assembly LHS.

See Drawing Page 16

PS-22786A-D11R-NG

Updated Handrails

Item	Part No.	Part Name	Qty		
1	PS-22786	LANDING ASSY	1		
2	PS-22787A-NG	HANDRAIL- LHS-FRONT-NEW GEN	1		
2A	PS-22787B-NG	HANDRAIL- LHS-REAR-NEW GEN	1		
3	PS-21932	ISOLATOR PIN BRACKETS	2		
4	PS-21930A	ISOLATOR MOUNTING ASSY	6		
5	PS-21976	FRONT PIVOT PIN BRACKET	1		
6	PS-21941-02	ANTI VIBRATION BEARING	2		
7	PS-21941-06	RUBBER BUSH	2		
8	PS-21933	ISOLATOR BUSH PIN	2		
9	PS-21925	MIDDLE BEARING MOUNTING	1		
10	PS-HRI-A06	HANDRAIL POST CLAMP	4		
11	PS-22785-04	SIDE MOUNTING PAD	2		
12	CPS-M12X65ZP	BOLT-SOCKET HEAD-M12 x 65	2		
13	CPS-M12X35ZP	BOLT-M12 x 35	36		
14	CPS-M12X30ZP	BOLT-M12 x 30	12		
15	CPS-M12X25ZP	BOLT-M12 x 25	20		
16	CPS-M8X35ZP	BOLT-M8 x 35	8		
17	CPS-M12NZP	NUT-M12	30		
18	CPS-1/2"NN	NUT-NYLOC-1/2"UNC	4		
19	CPS-M8NN	NUT-NYLOC-M8	8		
20	CPS-M12WH	WASHER-HARDENED-M12	98		
21	CPS-M8WH	WASHER-HARDENED-M8	16		

FOLDING STAIRWAY

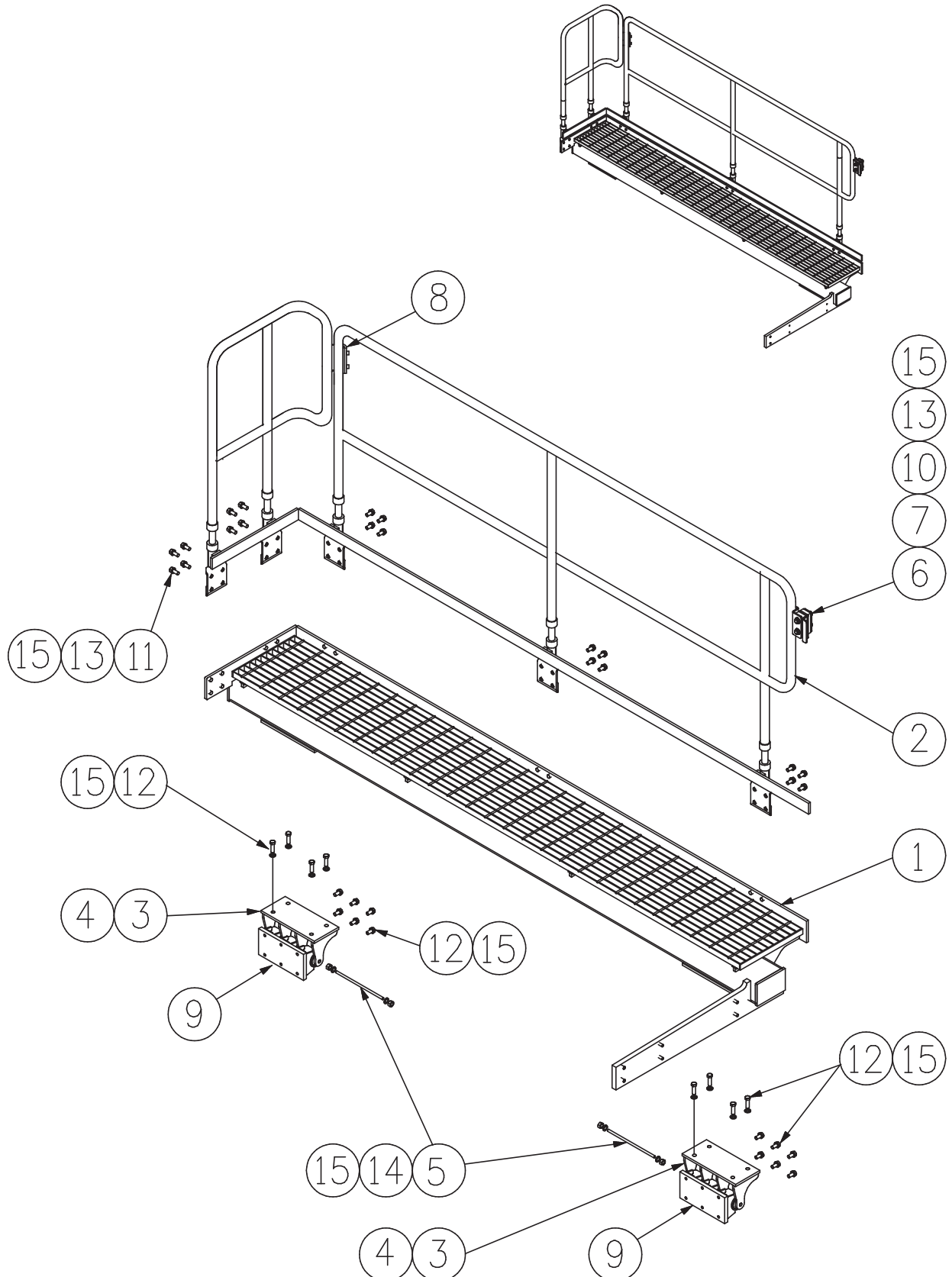
Caterpillar D11R Dozer



Section 4-2 Landing Assembly RHS.

PS-22784A-D11R

See Parts List Page 19



FOLDING LADDER

Caterpillar D11R Dozer



Section 4-3 Landing Assembly RHS. PS-22784A-D11R

See Drawing Page 18

Item	Part No.	Part Name	Qty		
1	PS-22784	LANDING ASSEMBLY RHS	1		
2	PS-22788	HANDRAIL RHS	1		
3	PS-21932	ISOLATOR PIN BRACKET	2		
4	PS-21930A	ISOLATOR MOUNTING ASSY	6		
5	PS-21933	ISOLATOR BUSH PIN	2		
6	PS-22005-02	CLAMP PLATE	2		
7	PS-22005-03	ISOLATOR RUBBER	2		
8	PS-22789	HANDRAIL ISOLATOR STYLE II	1		
9	PS-21927-04	SIDE MOUNTING PAD	2		
10	CPS-M12X75ZP	BOLT-M12 x 75	20		
11	CPS-M12X35ZP	BOLT-M12 x 35	20		
12	CPS-M12X25ZP	BOLT-M12 x 25	22		
13	CPS-M12NZP	NUT-M12	4		
14	CPS-1/2"NN	NUT- NYLOC-1/2" UNC	68		
15	CPS-M12WH	WASHER-HARDENED-M12	2		

FOLDING STAIRWAY

Caterpillar D11R Dozer

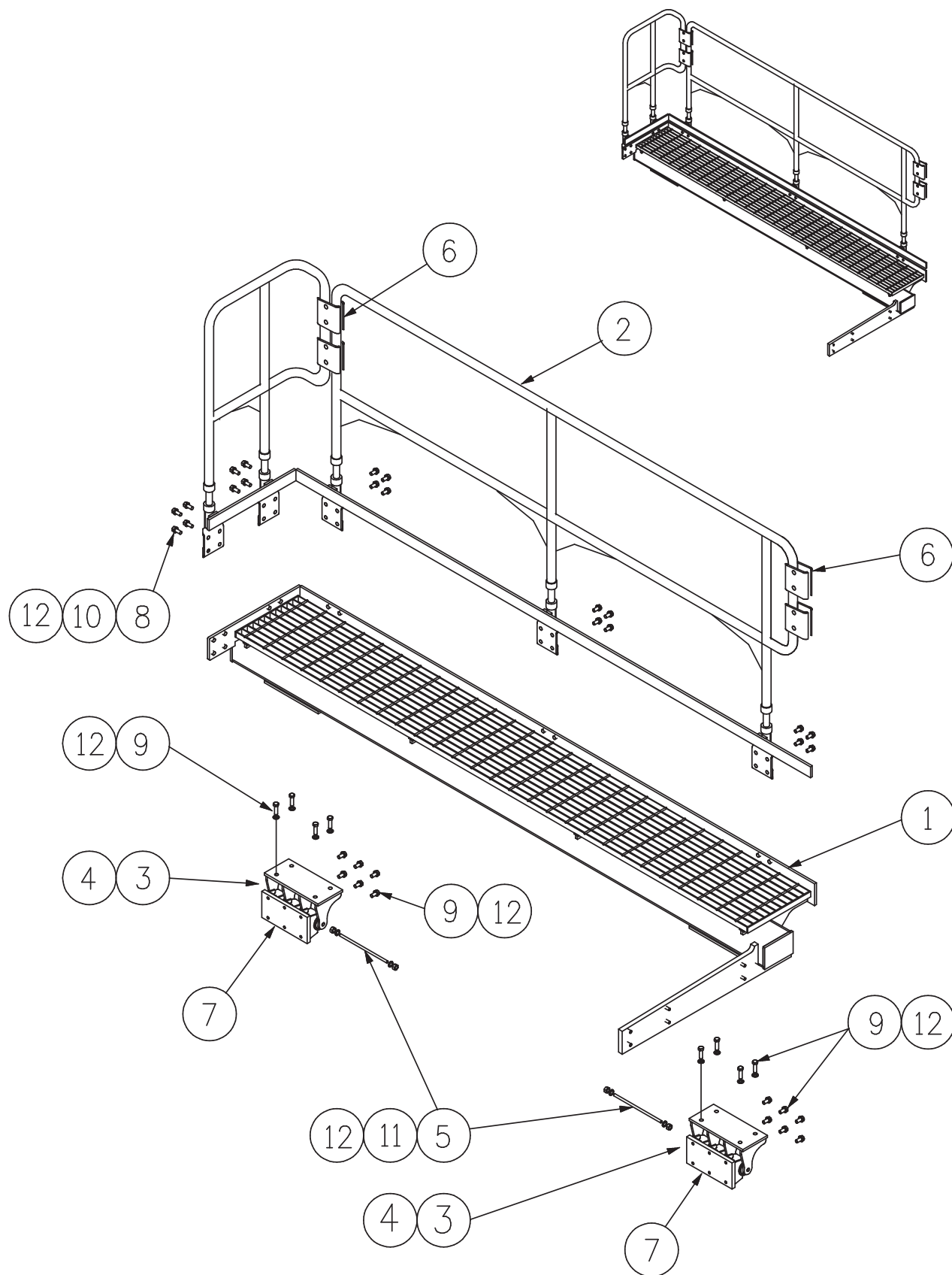


Section 4-3 Landing Assembly RHS.

See Parts List Page 21

PS-22784A-D11R-NG

Updated Handrails



FOLDING STAIRWAY

Caterpillar D11R Dozer



Section 4-3 Landing Assembly RHS.

See Drawing Page 20

PS-22784A-D11R-NG

Updated Handrails

Item	Part No.	Part Name	Qty		
1	PS-22784	LANDING ASSEMBLY RHS	1		
2	PS-22788	HANDRAIL RHS- NG	1		
3	PS-21932	ISOLATOR PIN BRACKET	2		
4	PS-21930A	ISOLATOR MOUNTING ASSY	6		
5	PS-21933	ISOLATOR BUSH PIN	2		
6	PS-HRI-A06	HANDRAIL POST CLAMP (CLAMP ASSY)	4		
7	PS-21927-04	SIDE MOUNTING PAD	2		
8	CPS-M12X35ZP	BOLT-M12 x 35	20		
9	CPS-M12X25ZP	BOLT-M12 x 25	20		
10	CPS-M12NZP	NUT-M12	20		
11	CPS-1/2"NN	NUT- NYLOC-1/2" UNC	4		
12	CPS-M12WH	WASHER-HARDENED-M12	64		

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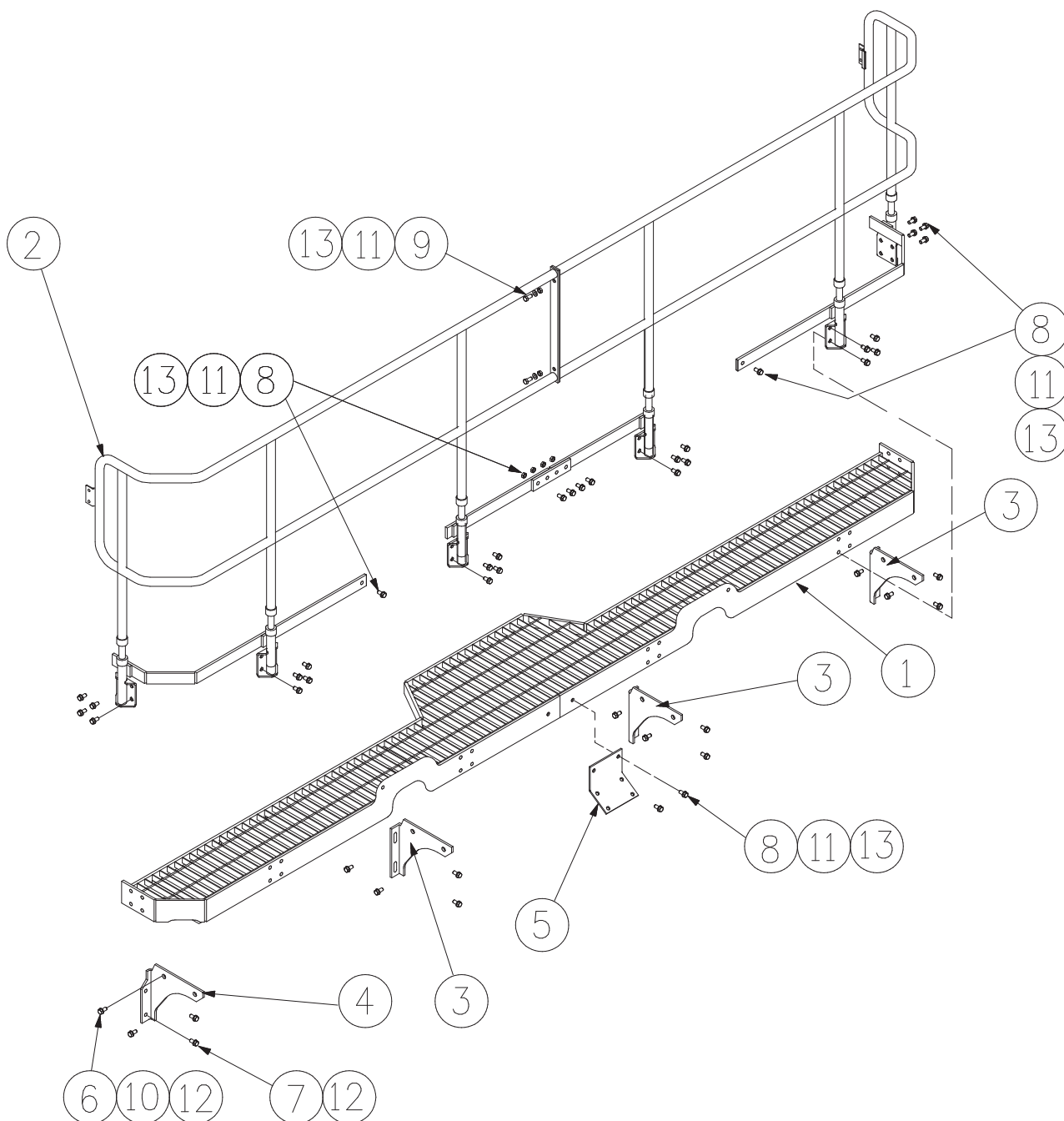
Caterpillar D11R Dozer



Section 4-4 Landing Assembly Rear

PS-22782A

See Parts list Page 23



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Caterpillar D11RN Dozer



Section 4-4 Landing Assembly Rear

PS-22782A

See Drawing Page 22

Item	Part No.	Part Name	Qty		
1	PS-22782	LANDING - REAR	1		
2	PS-22783	HANDRAILS - REAR	1		
3	PS-21928-R	REAR LANDING BRACKET-RHS	3		
4	PS-21928-L	REAR LANDING BRACKET-LHS	1		
5	PS-21990	RIPPER LIGHT BRACKET	1		
6	PS-M16X50ZP	BOLT-M16 x 50	8		
7	PS-M16X30ZP	BOLT-M16 x 30	8		
8	PS-M12X35ZP	BOLT-M12 x 35	30		
9	PS-M12X30ZP	BOLT-M12 x 30	2		
10	CPS-M16NZP	NUT-M16	8		
11	CPS-M12NZP	NUT-M12	32		
12	CPS-M16WH	WASHER-HARDENED-M16	24		
13	CPS-M12WH	WASHER-HARDENED-M12	64		

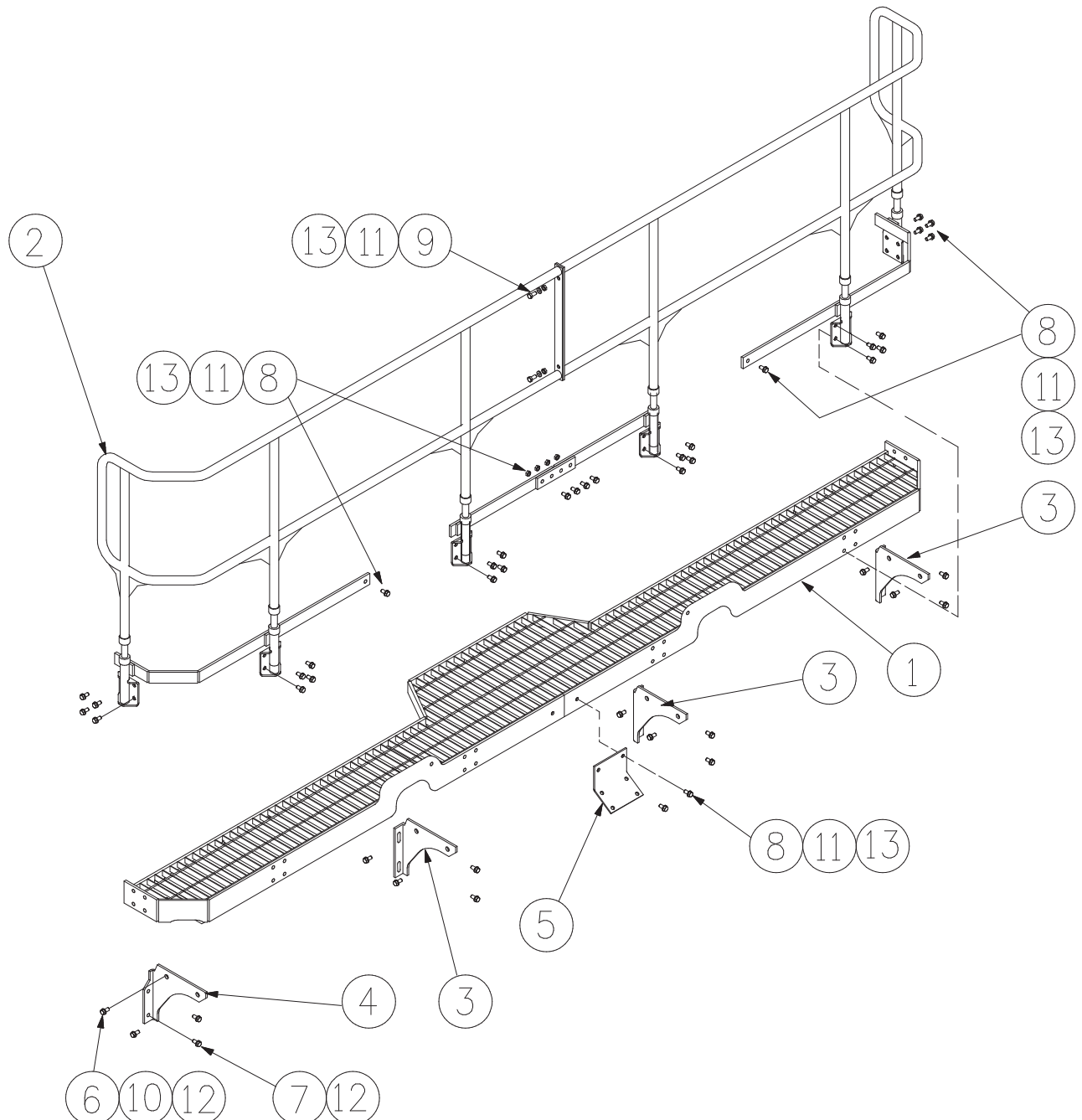
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Caterpillar D11R Dozer



Section 4-4 Landing Assembly Rear PS-22782A-NG Updated Handrails

See Parts List Page 25



FOLDING STAIRWAY

Caterpillar D11R Dozer



Section 4-4 Landing Assembly Rear S-22782A-NG **Updated Handrails**

See Drawing Page 24

Item	Part No.	Part Name	Qty		
1	PS-22782	LANDING - REAR	1		
2	PS-22783	HANDRAILS - REAR - NG	1		
3	PS-21928-R	REAR LANDING BRACKET-RHS	3		
4	PS-21928-L	REAR LANDING BRACKET-LHS	1		
5	PS-21990	RIPPER LIGHT BRACKET	1		
6	PS-M16X50ZP	BOLT-M16 x 50	8		
7	PS-M16X30ZP	BOLT-M16 x 30	8		
8	PS-M12X35ZP	BOLT-M12 x 35	30		
9	PS-M12X30ZP	BOLT-M12 x 30	2		
10	CPS-M16NZP	NUT-M16	8		
11	CPS-M12NZP	NUT-M12	32		
12	CPS-M16WH	WASHER-HARDENED-M16	24		
13	CPS-M12WH	WASHER-HARDENED-M12	64		

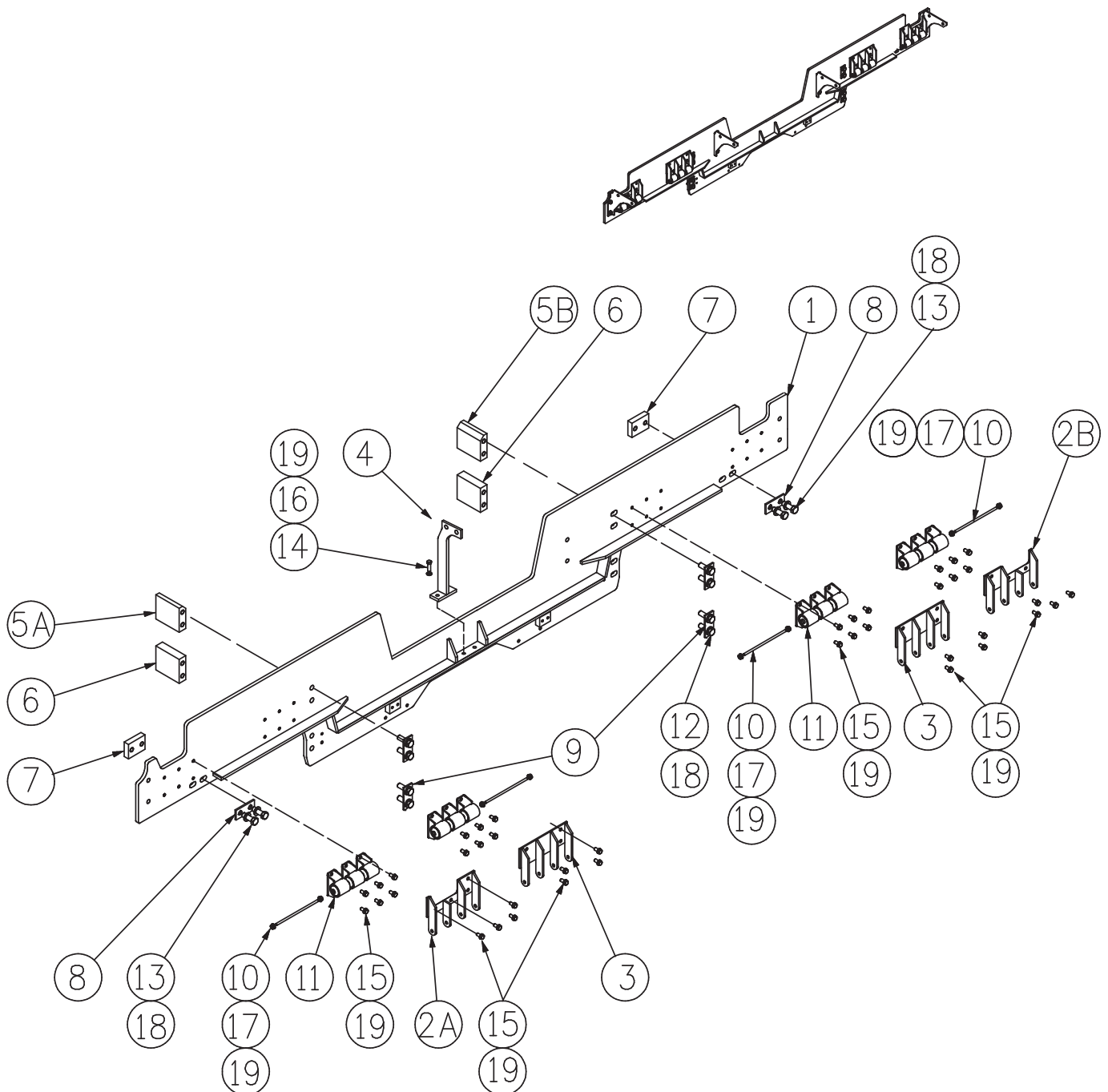
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Caterpillar D11R Dozer



Section 4-5 Spreader Assembly

See Parts List Page 27



FOLDING LADDER

Caterpillar D11R Dozer



Section 4-5 Spreader Assembly

See Drawing Page 26

Item	Part No.	Part Name	Qty		
1	PS-22780	SPREADER	1		
2A	PS-21931 98	ISOLATOR PIN BRACKET-OUTER LEFT	1		
2B	PS-21931 97	ISOLATOR PIN BRACKET-OUTER RIGHT	1		
3	PS-21931 99	ISOLATOR PIN BRACKET-INNER	2		
4	PS-21929	REAR LANDING POST	1		
5A	PS-22785 01A	REAR TOP INNER MOUNTING BLOCK-LHS	1		
5B	PS-22785-01B	REAR TOP INNER MOUNTING BLOCK-RHS	1		
6	PS-22785-02	REAR LOWER INNER MOUNTING BLOCK	2		
7	PS-22785-03	REAR OUTER MOUNTING BLOCK	2		
8	PS-22785-06	WASHER PLATES	2		
9	PS-22785-05	WASHER PLATES	4		
10	PS-21983	ISOLATOR BUSH PIN	4		
11	PS-21930A	ISOLATOR MOUNTING ASSY	12		
12	PS-M20X60ZP	BOLT-M20 x 60	8		
13	PS-M20X45ZP	BOLT-M20 x 45	4		
14	CPS-M12X40ZP	BOLT-M12 x 40	2		
15	CPS-M12X25ZP	BOLT-M12 x 25	40		
16	CPS-M12NZP	NUT-M12	2		
17	CPS-1/2"NN	NUT-NYLOC-1/2" UNC	8		
18	PS-M20WH	WASHER-HARDENED-M20	12		
19	CPS-M12WH	WASHER-HARDENED-M12	52		

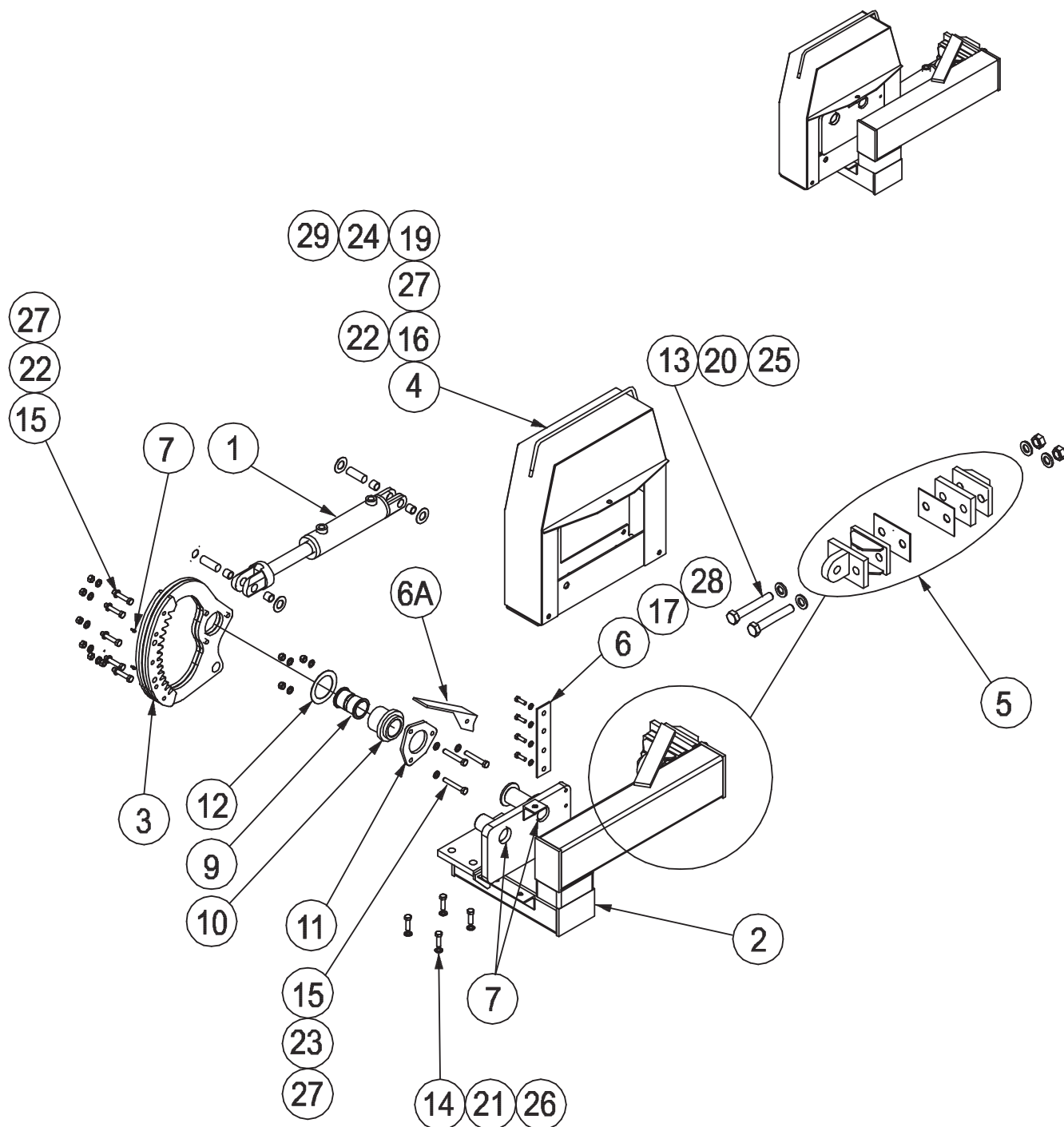
FOLDING LADDER

Caterpillar D11R Dozer



Section 4-6 Drive Unit Assembly

See Parts list Page 29



FOLDING LADDER

Caterpillar D11R Dozer



Section 4-6 Drive Unit Assembly

See Drawing Page 28

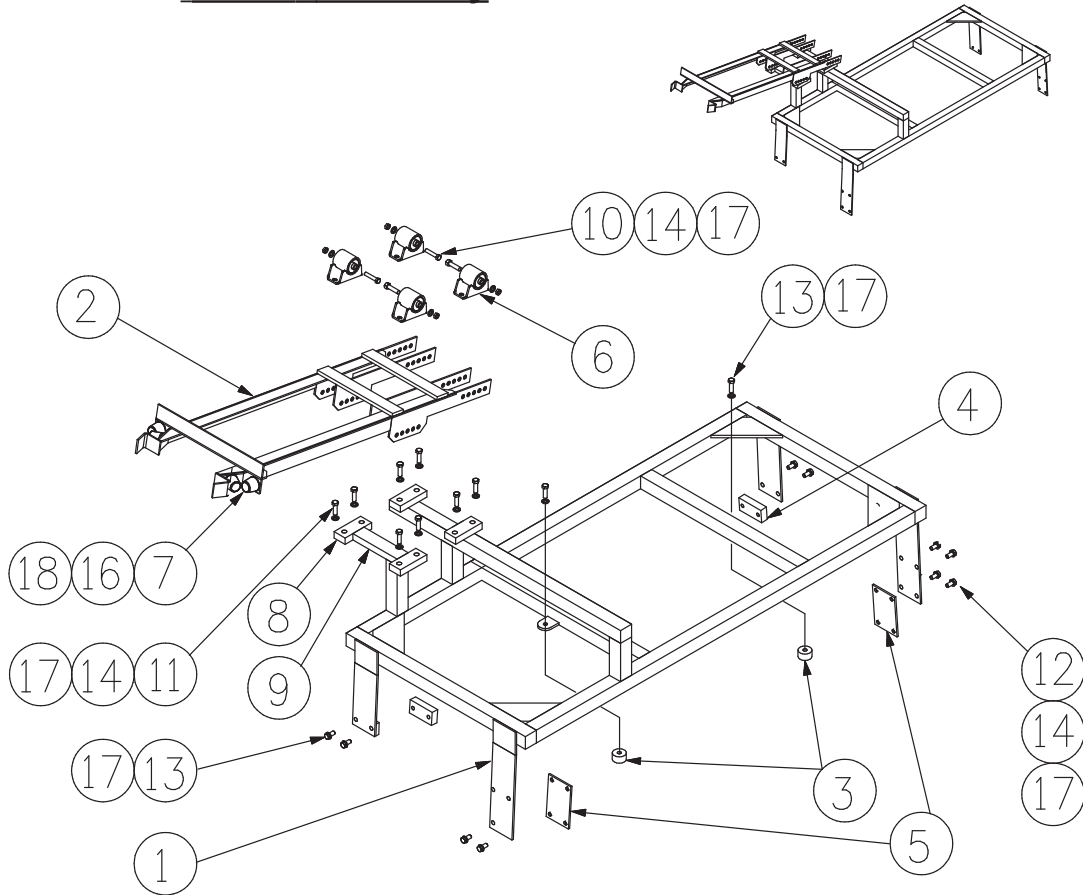
Item	Part No.	Part Name	Qty		
1	PS-63014	HYDRAULIC CYLINDER (Refer Page 22)	1		
2	PS-21974	DRIVE MOUNTING FRAME	1		
3	PS-21959	SECTOR GEAR	1		
4	PS-21984	DRIVE GUARD	1		
5	PS-21954	ACTUATOR CYL. MOUNTING ASSEMBLY	1		
6	PS-21991-02	MOUNTING BAR-PROXIMITY SWITCH	1		
6A	PS-21991-01	STRIKER	1		
7	PS-61006-2	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 D11R Dozer



Section 4-7 PROP Assembly



Item	Part No.	Part Name	Qty		
1	PS-21987	PROP MOUNTING FRAME	1		
2	PS-21945	PROP	1		
3	PS-21987-16	ROOF BUTTON	2		
4	PS-21987-14	BOLTING PAD	2		
5	PS-21987-13	SPACER	2		
6	PS-21930A	ISOLATOR MOUNTING ASSY	4		
7	PS-40003	BUFFER	4		
8	PS-21987-11	ISOLATOR PAD	4		
9	PS-21987-10	PROP SUPPORT SPREADER	1		
10	CPS-M12X120ZP	BOLT-M12 x 120	4		
11	CPS-M12X50ZP	BOLT-M12 x 50	8		
12	CPS-M12X40ZP	BOLT-M12 x 40	8		
13	CPS-M12X25ZP	BOLT-M12 x 25	6		
14	CPS-M12NZZP	NUT-M12	16		
15	CPS-M12NN	NUT-NYLOC-M12	4		
16	CPS-M10NZZP	NUT-M10	4		
17	CPSM12WH	WASHER-HARDENED-M12	46		
18	CPS-M10WH	WASHER-HARDENED-M10	4		

FOLDING LADDER

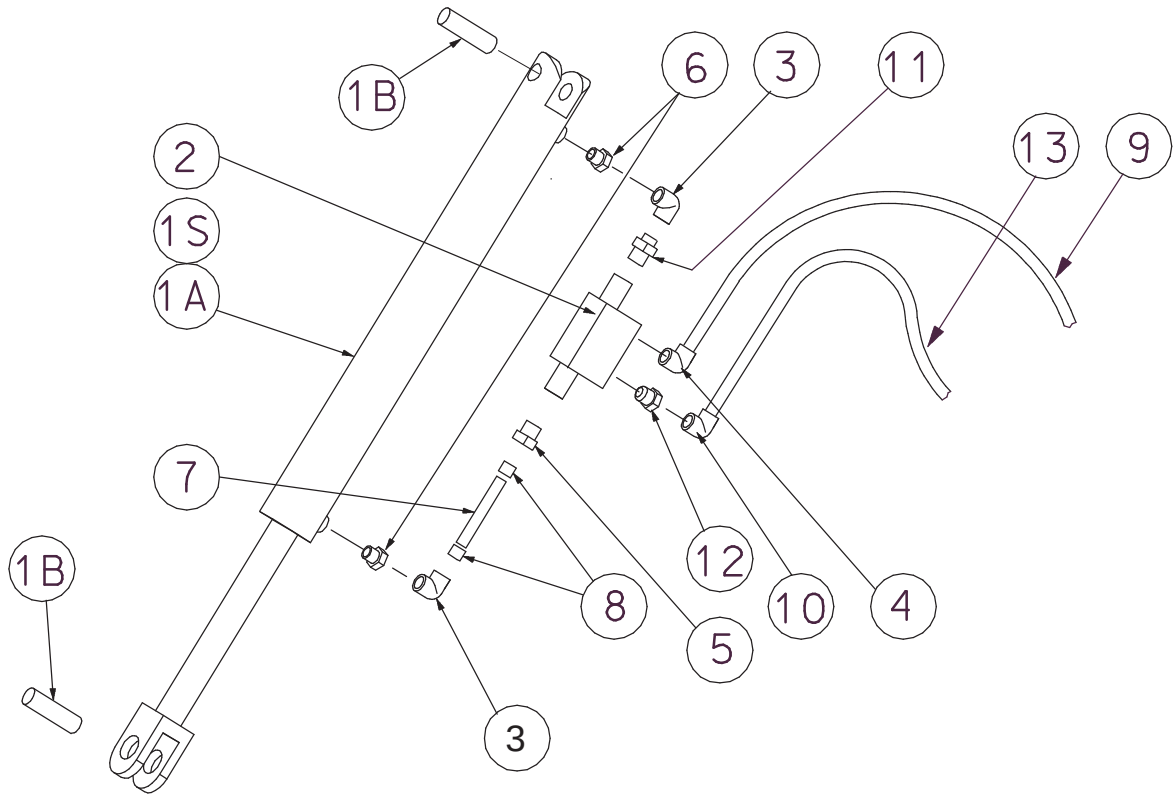
Caterpillar D11R Dozer



Section 4-8 Hydraulic Cylinder

PS-63014-AH

Incl. Items 1A,1B,2,3,4,5,6,7,8,9,11,12,13.



Item	Part No.	Part Name	Qty		
1A	PS-63014A	HYDRAULIC CYLINDER	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	PS61163	REDUCER JIC x BSPP	2		
7	PS-61160	TUBE	2		
8	PS-60047	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

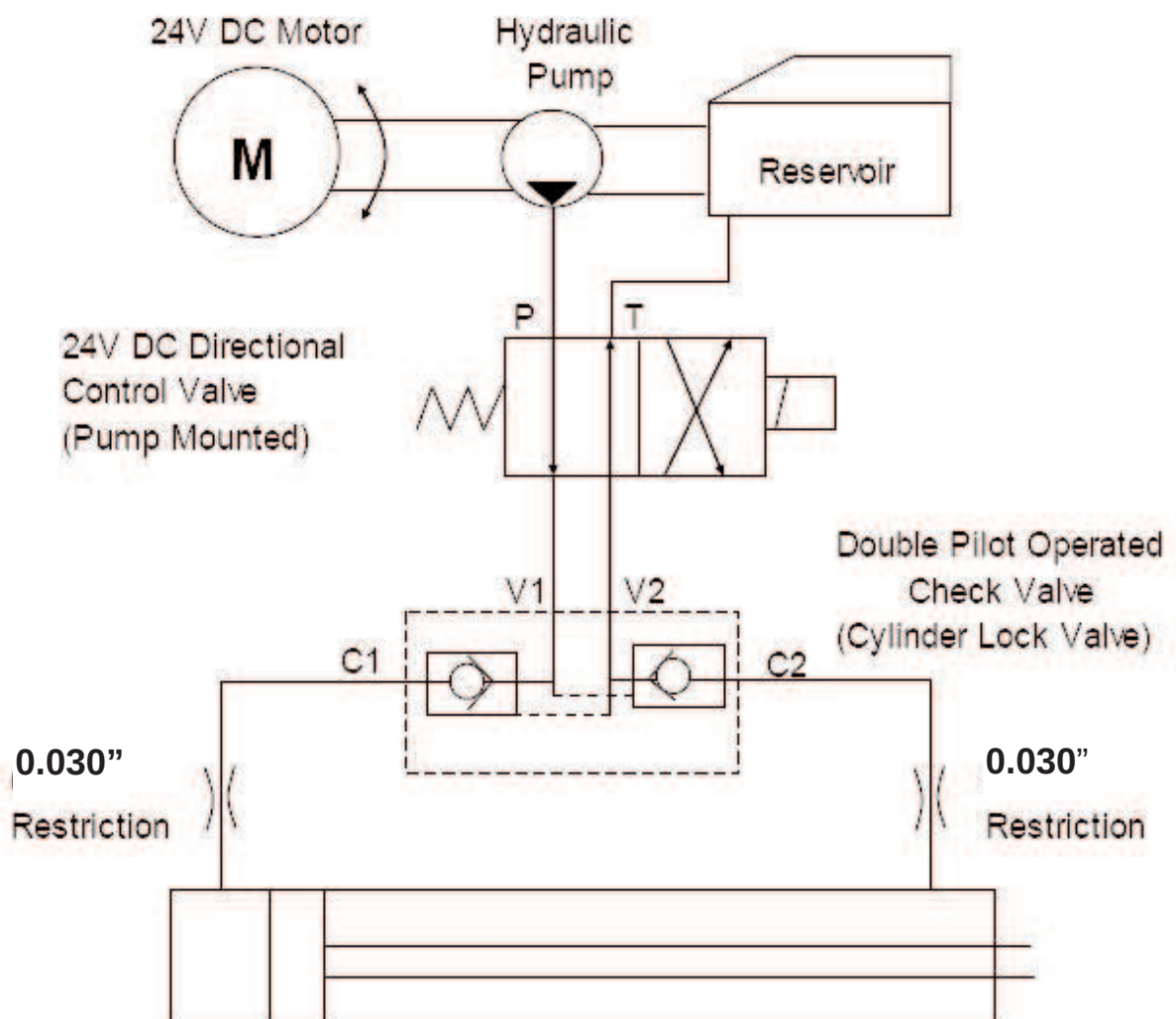
Caterpillar D11R Dozer



Section 4-8 Hydraulic Cylinder - Valve Diagram

See also Drawing page 31

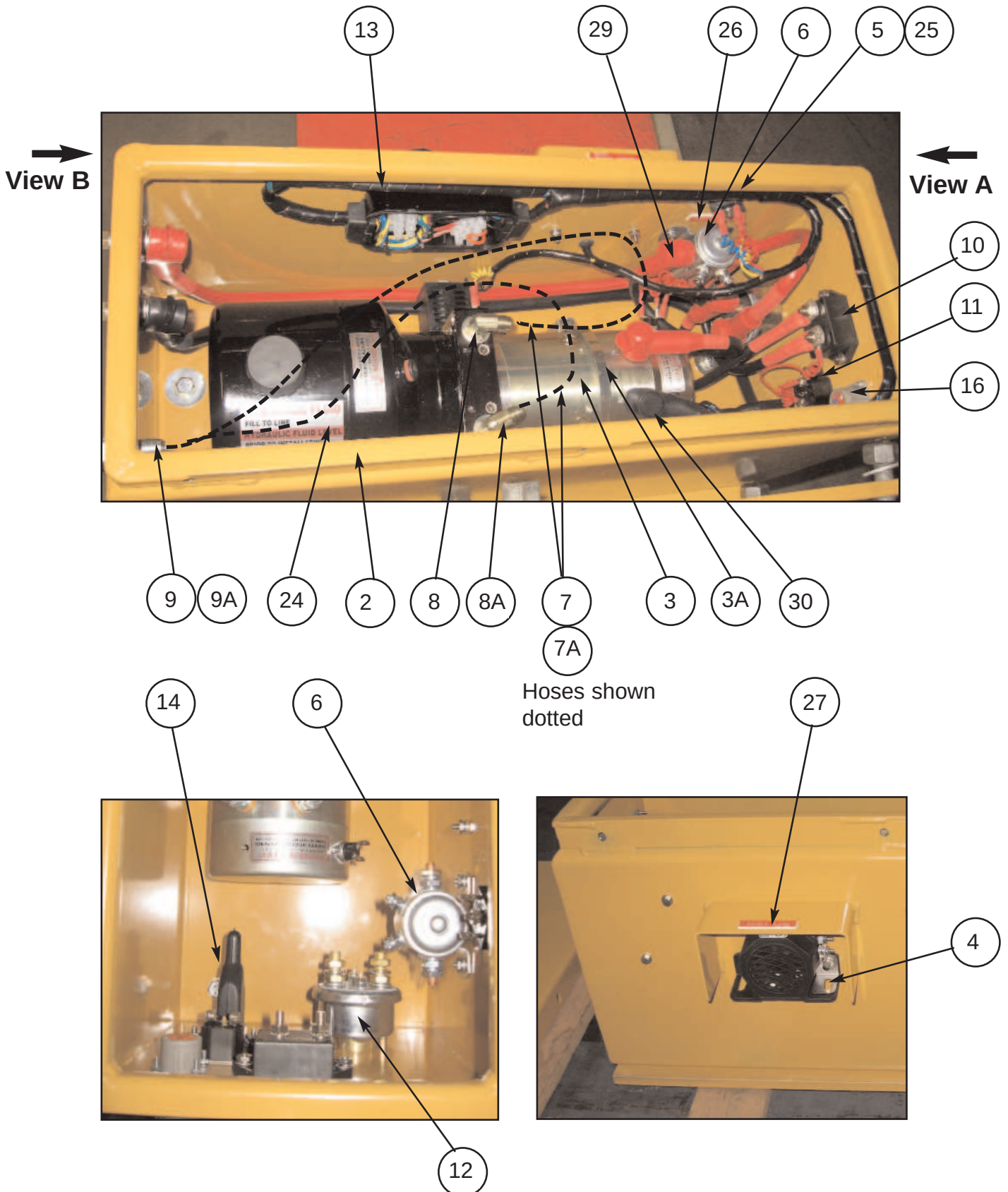
Double Acting Hydraulic System with
directional Control Valve and Cylinder
Lock Valve



FOLDING STAIRWAY Caterpillar D11R Dozer



Section 4-9 Power Pack PS-80103A-SLD
See Parts List Pg 35

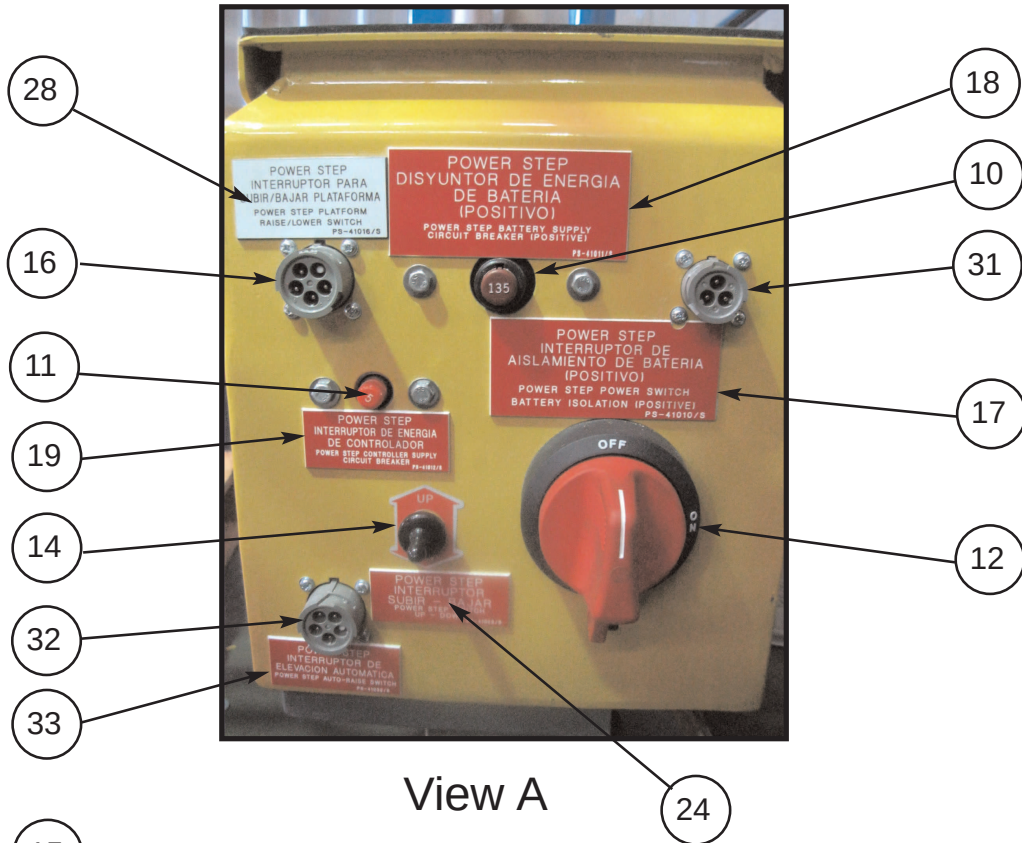


FOLDING LADDER Caterpillar D11R Dozer

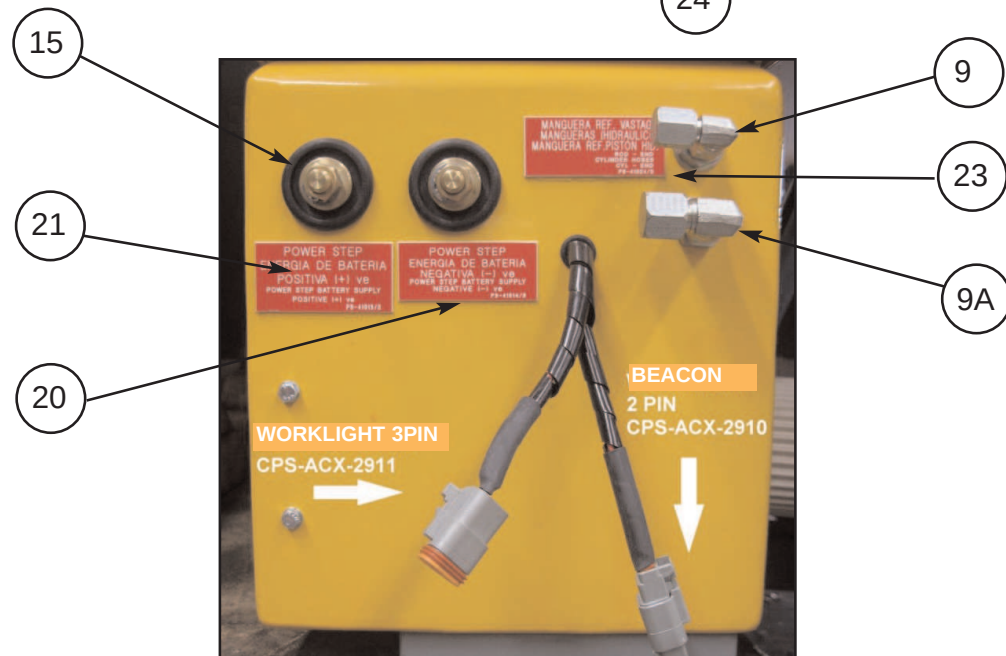


Section 4-9 Power Pack PS-80103A-SLD

See Parts List Pg 35



View A



View B

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.

FOLDING STAIRWAY

Caterpillar D11R Dozer



Section 4-9. Power Pack PS-80103A-SLD

(Includes Electrical controls & Accessories)

See Photos Page 33 & 34

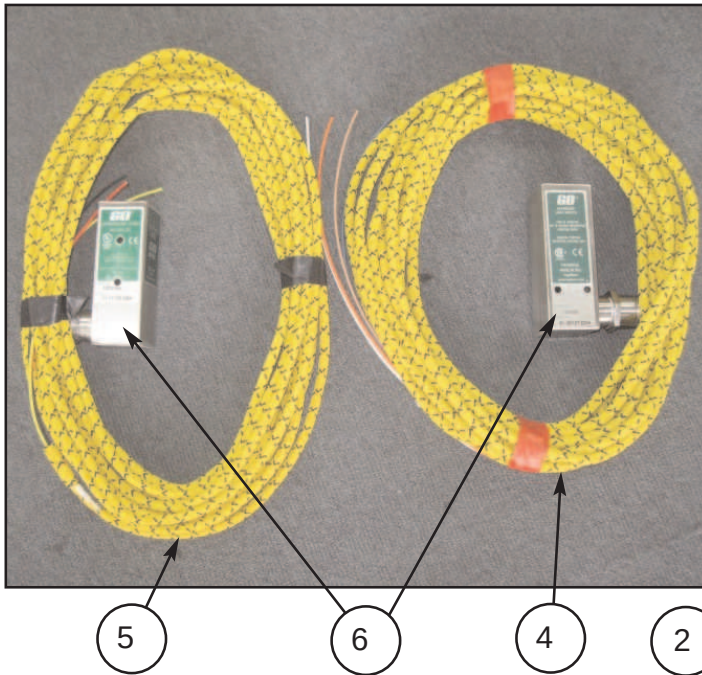
Item	Part No.	Part Name	Qty		
1	PS-80103A-SLD	POWER PACK ASSEMBLY	1		
2	PS-21107-METAL	MOTOR ENCLOSURE- SEALED	1		
3	PS-80103A	POWER PACK	1		
3A	PS-80103-CLAMP	CLAMP ELECTRIC MOTOR	1		
4	PS-82415	AUDIBLE ALARM	1		
5	PS-84214	BRIDGE RECTIFIER	1		
6	PS-82492	SOLENOID 24V START MOTOR	1		
7	PS-60051-900MM 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- (INCLUDING BRACKET)	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-5A	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	4		
30	PS-73009	RUBBER BOOT BLACK	2		
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

FOLDING STAIRWAY Caterpillar D11R Dozer



Section 4.10 Electrical Controls

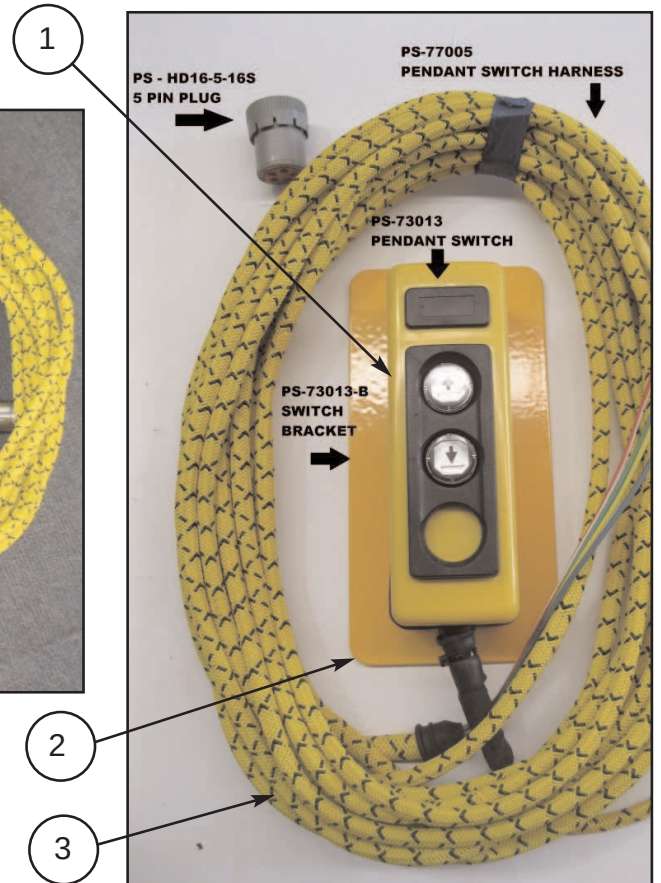
Proximity Switch Assembly Mounted on Fixed Landing



Cab Harness & Equipment Refer Wiring Harness Drawings



Control Pendant Switch Mounted on Handrail



FOLDING STAIRWAY

Caterpillar D11R Dozer



Section 4.10 Electrical Controls

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**

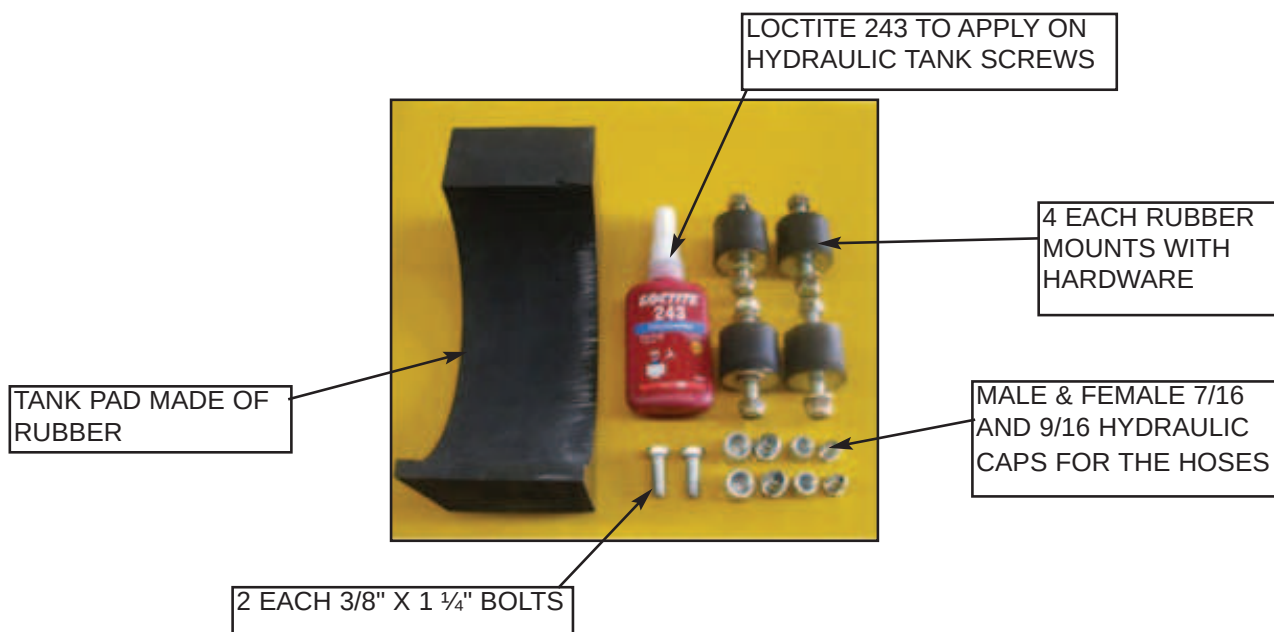
FOLDING LADDER

Caterpillar D11R Dozer



Section 4.10 Electrical Controls

Material Kit supplied   PS-P/PACK-ISO. KIT



FOLDING LADDER

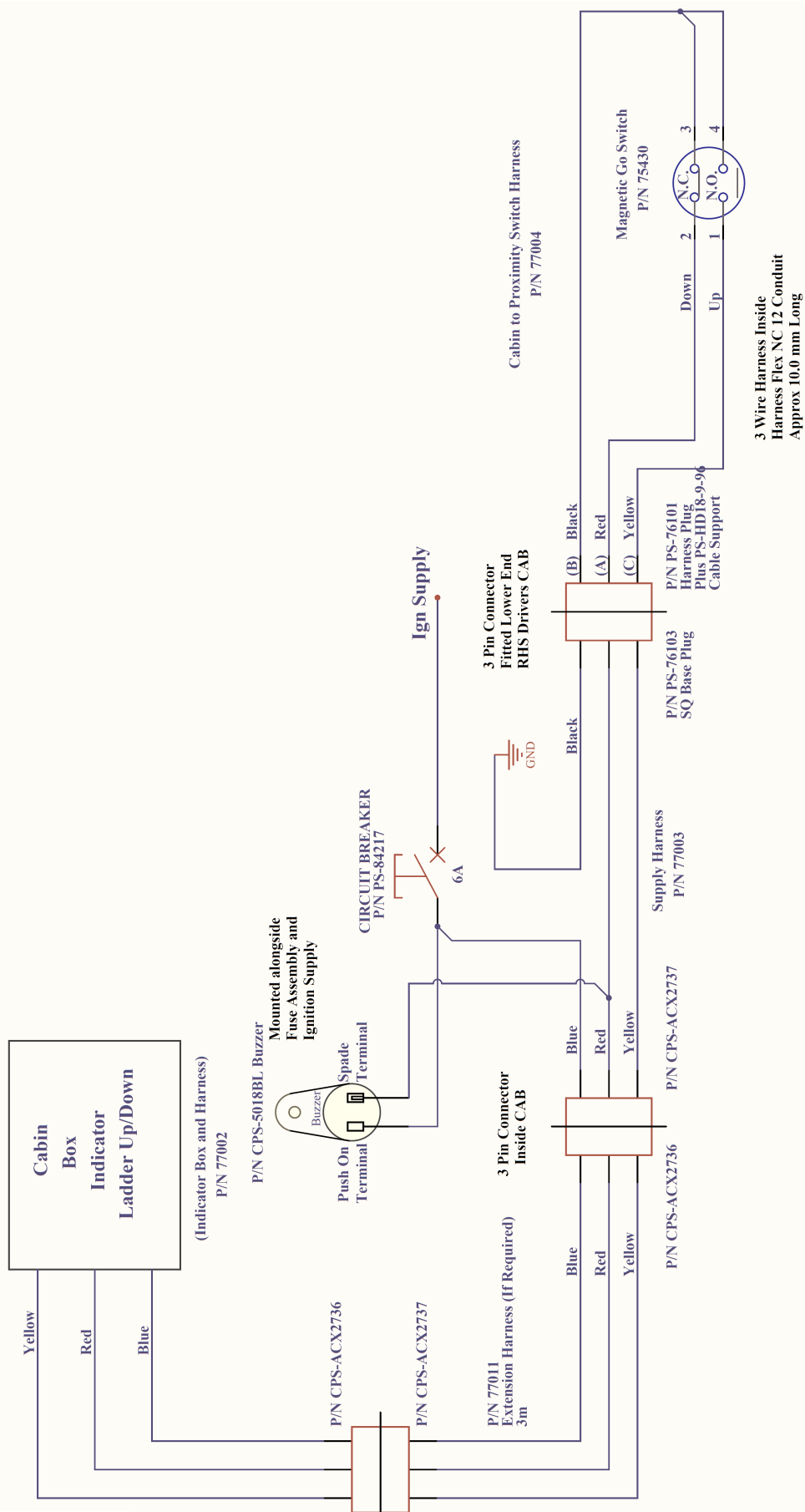
Caterpillar D11R Dozer



Section 4.10 Electrical Controls Wiring Diagrams Page 1

0201-02
Sheet 1

LADDER UP/DOWN



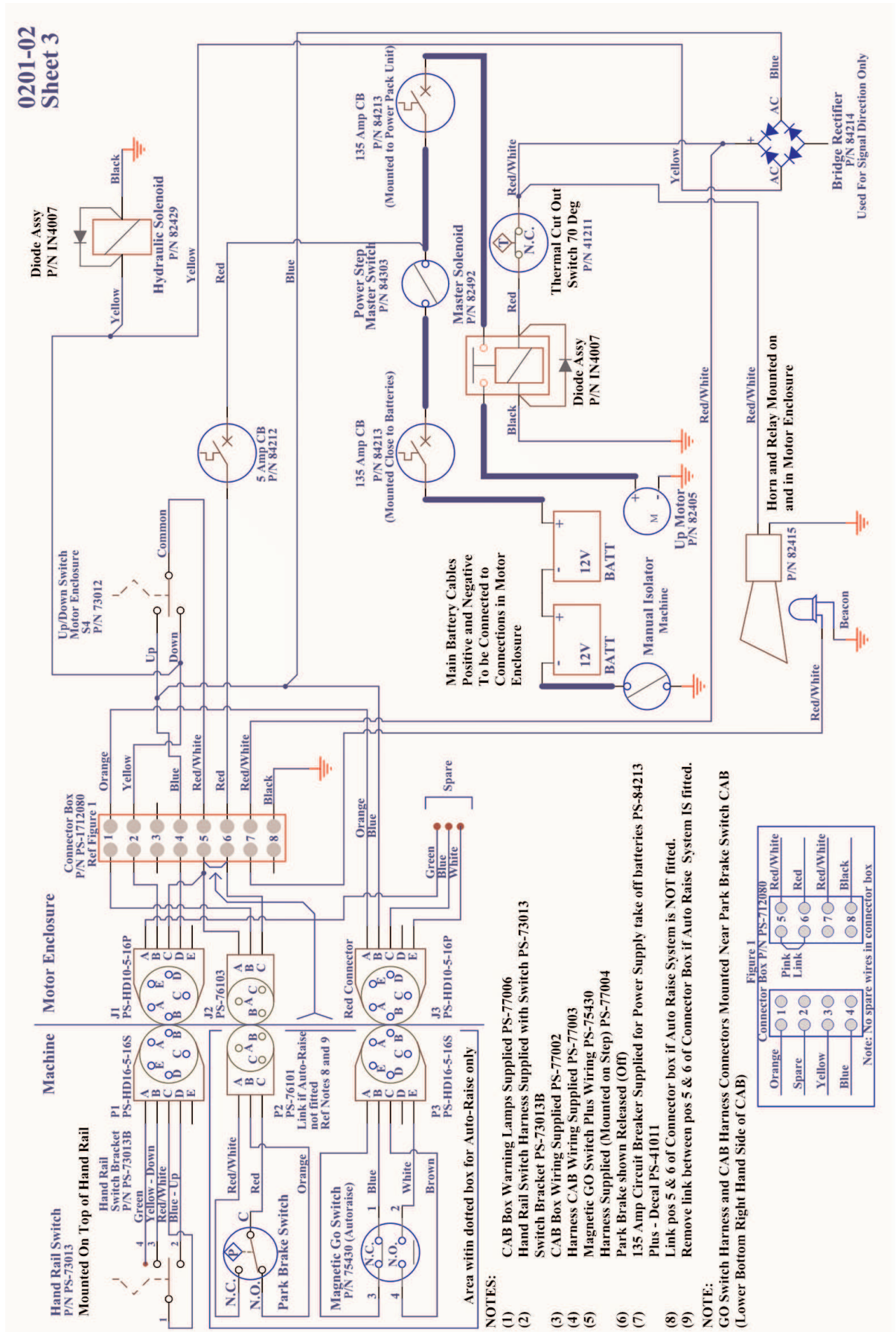
POWER STEP

Section 4.10 Electrical Controls Wiring Diagrams Page 2

FOLDING STAIRWAY Caterpillar D11R Dozer



Section 4.10 Electrical Controls Wiring Diagrams Page 3



FOLDING STAIRWAY

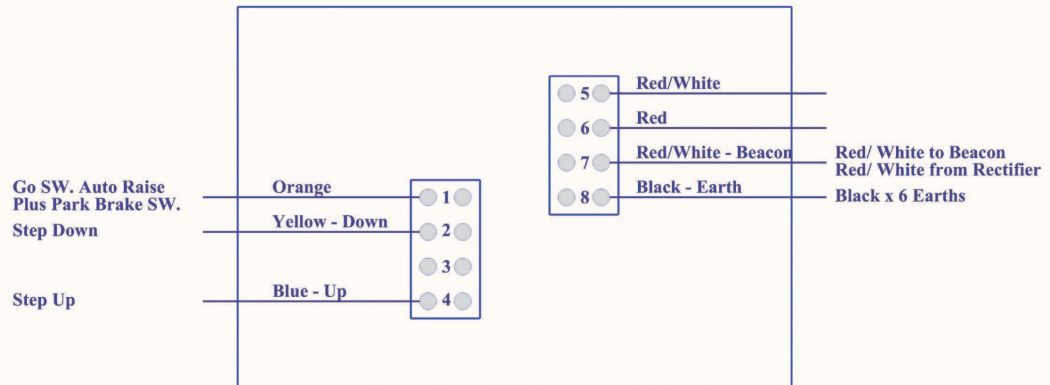
Caterpillar D11R Dozer



Section 4.10 Electrical Controls Wiring Diagrams Page 4

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)	Orrange	-	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	-		

Section 4.10 Electrical Controls Wiring Diagrams Page 5

WIRING HARNESS 2

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

