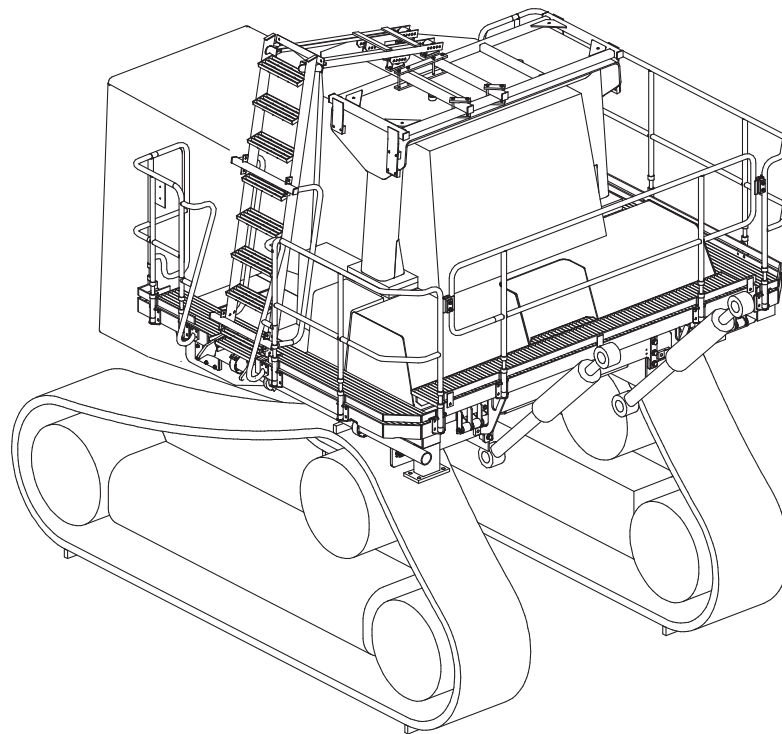




FOLDING LADDER

Manual for Caterpillar D9R Dozer Complete with Wrap-around Walkways



Model No.: PSA-D9R-RHW-FL
Serial No.: LD9R-RHW-001 to ~
Date Manufactured: July 2011

FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



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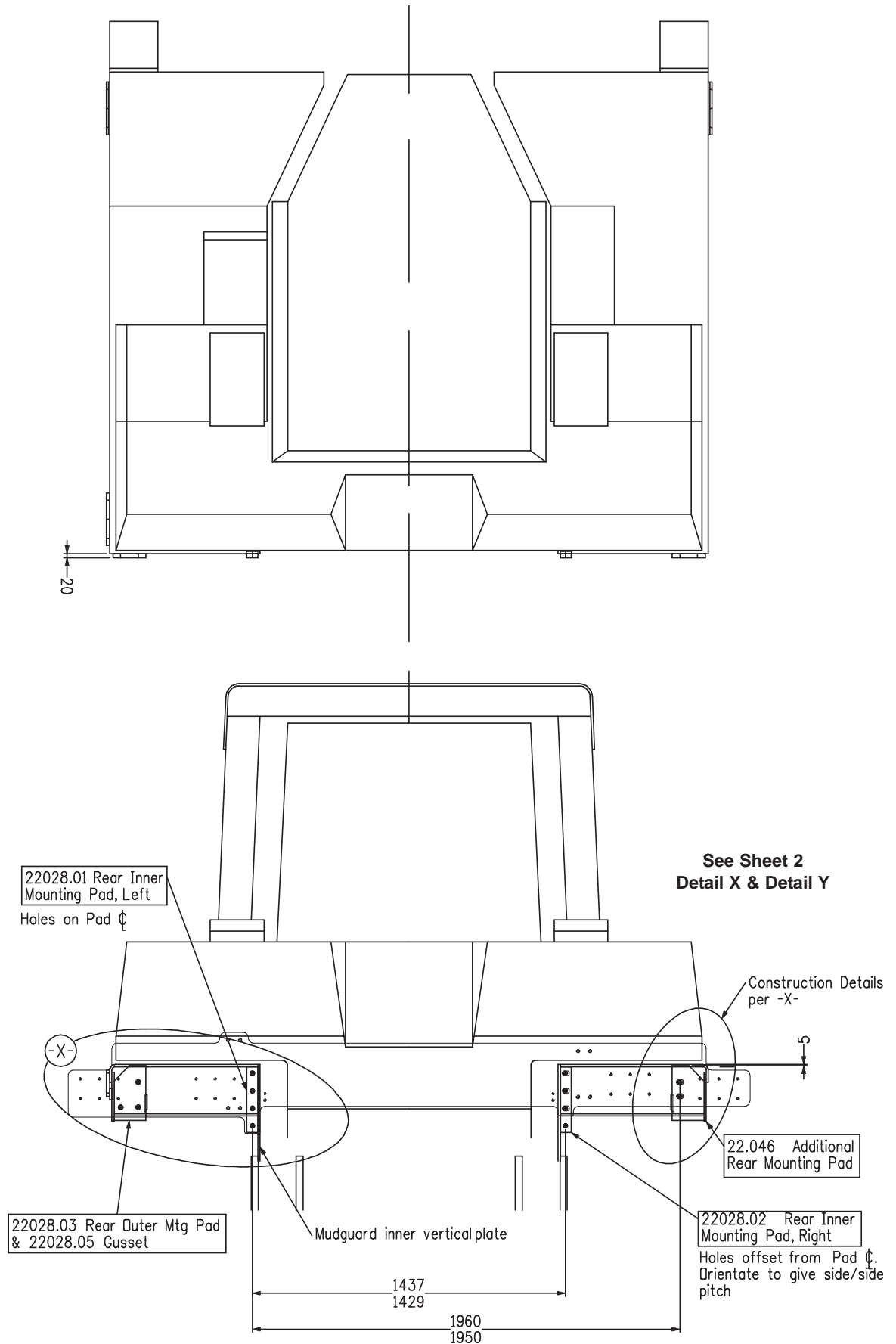
Page 3	Section 1 <u>Installation and Mounting Instructions</u> Installation Drawings
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Caterpillar D9R- Dozer (Full Walkways)



Section 1 Installation Instruction Drawings - Mountings 22044 Sheet 1



POWER STEP

DETAIL X

22028.01 Rear Inner Mounting Pad, Left

Notch inclined plate if necessary

10°

10° Below inclined plate

6°

6°

6°

6°

22028.03 Rear Outer Mtg Pad & 22028.05 Gusset

637

25

DETAIL Y

Left Side, Rear Isolator Mounting Pad 22045.03

Left Side, Rear Isolator Pad Spacer 22045.04

1877

22.5

37.5

25

10

Fuel Tank

6°

6°

6°

6°

3 sides where possible

Ø 8

245

16

All attachments at rear protrude 20 behind mudguard.

DETAIL Z

Side, Front Isolator Mounting Plate 22045.01

Side, Front Isolator Mounting Pad 22045.02

Ø1 bolts to '02'. Not weld.

245

1877

22.5

37.5

10

25

Y

Z

Side, Front Isolator Mounting Plate 22045.01

Side, Front Isolator Mounting Pad 22045.02

Construction Details per -Z-

Rear edge of mudguard inner vertical plate

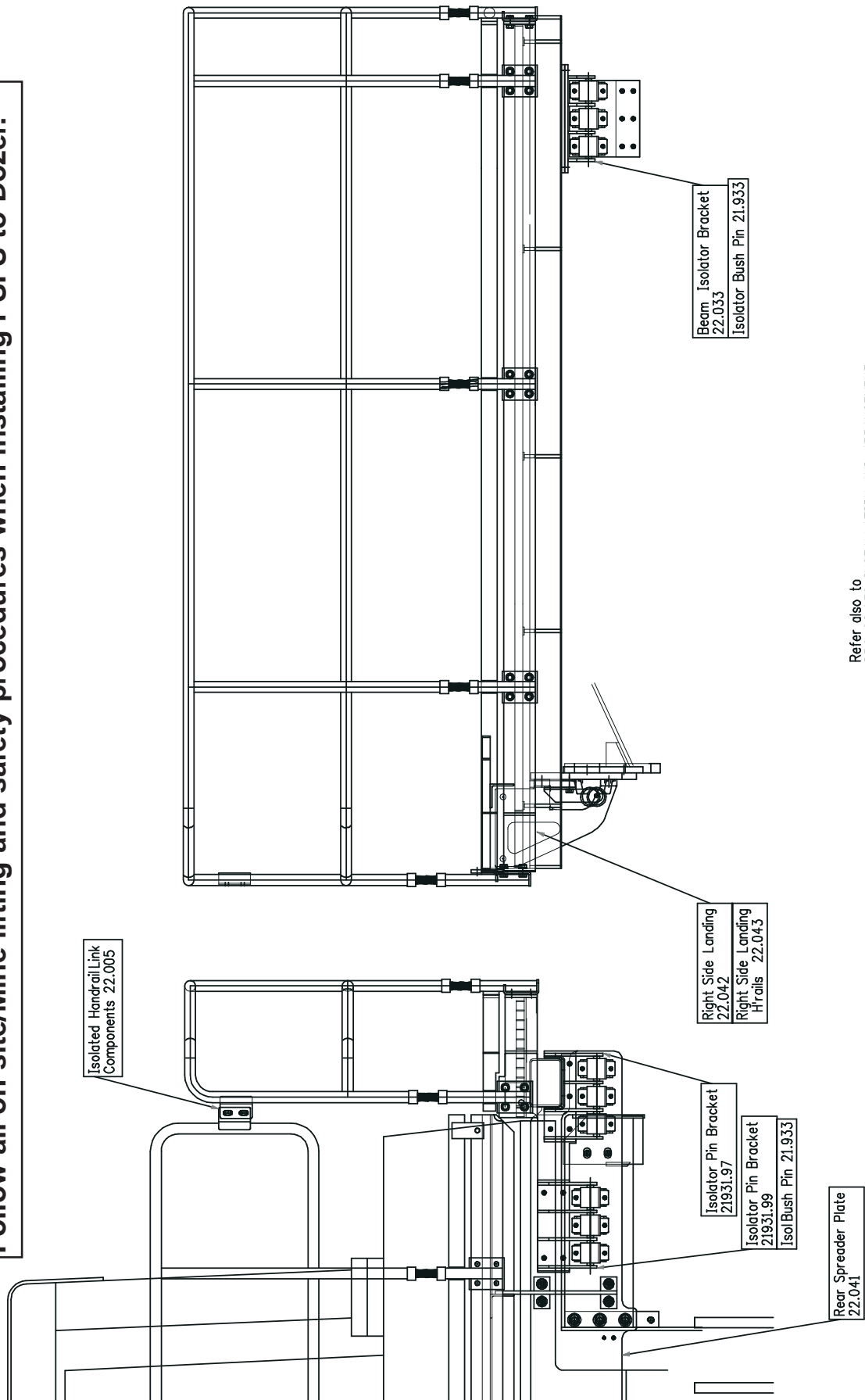
FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



Section 1 Installation Instruction Drawings - Isolator Mountings 22048

NOTE
Follow all on-site/Mine lifting and safety procedures when installing PSFS to Dozer.



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Caterpillar D9R- Dozer (Full Walkways)



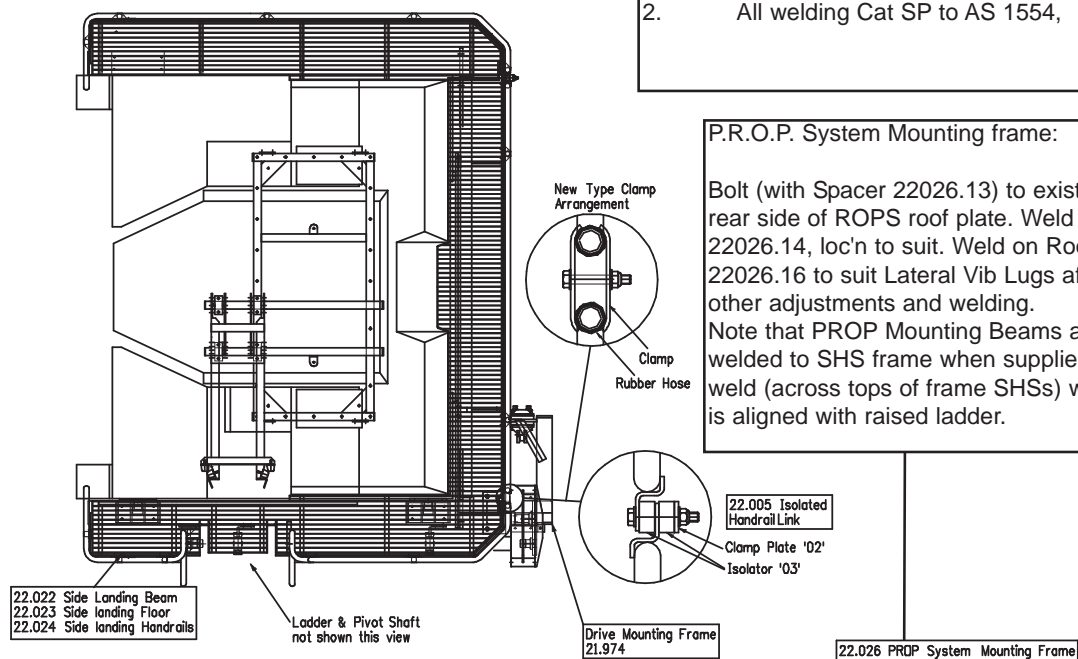
Section 1 Installation Instruction Drawings - 22032A

NOTE

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

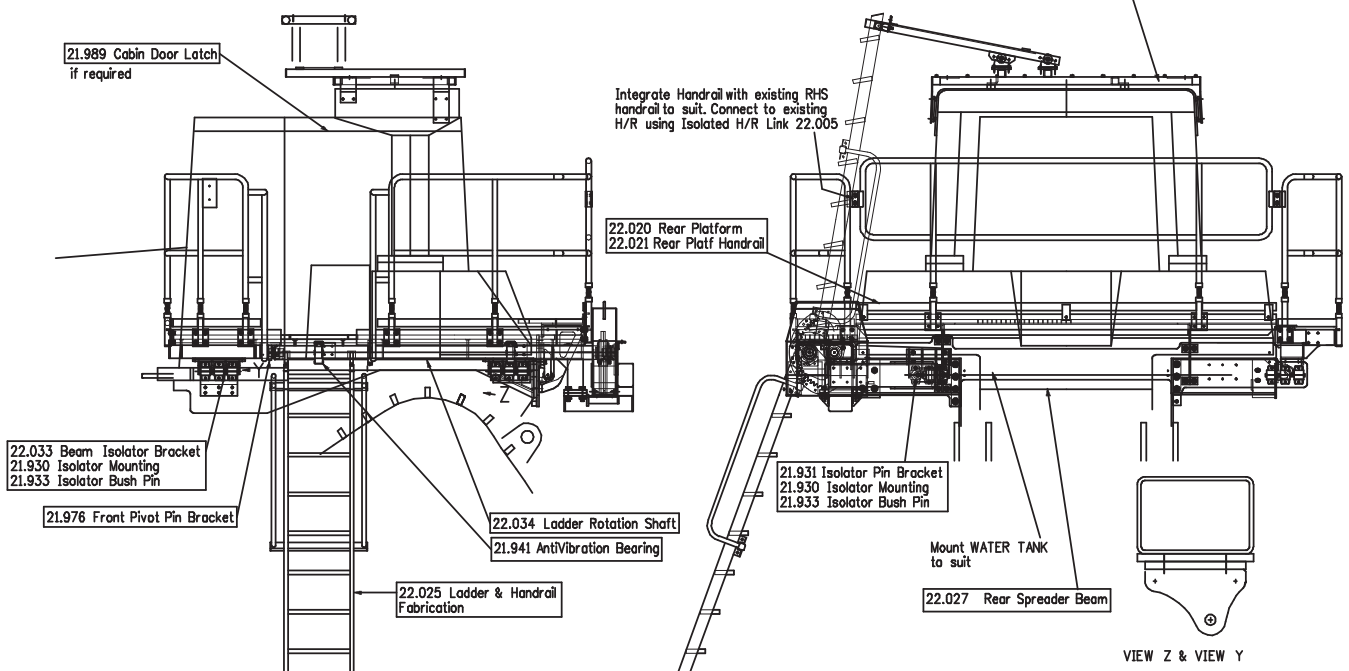
NOTES.

1. 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.
2. All welding Cat SP to AS 1554, 8cfw uno.



P.R.O.P. System Mounting frame:

Bolt (with Spacer 22026.13) to existing pads on rear side of ROPS roof plate. Weld on Front Pad 22026.14, loc'n to suit. Weld on Roof Buttons 22026.16 to suit Lateral Vib Lugs after completing other adjustments and welding.
Note that PROP Mounting Beams are not fully welded to SHS frame when supplied. Complete weld (across tops of frame SHSs) when PROP is aligned with raised ladder.

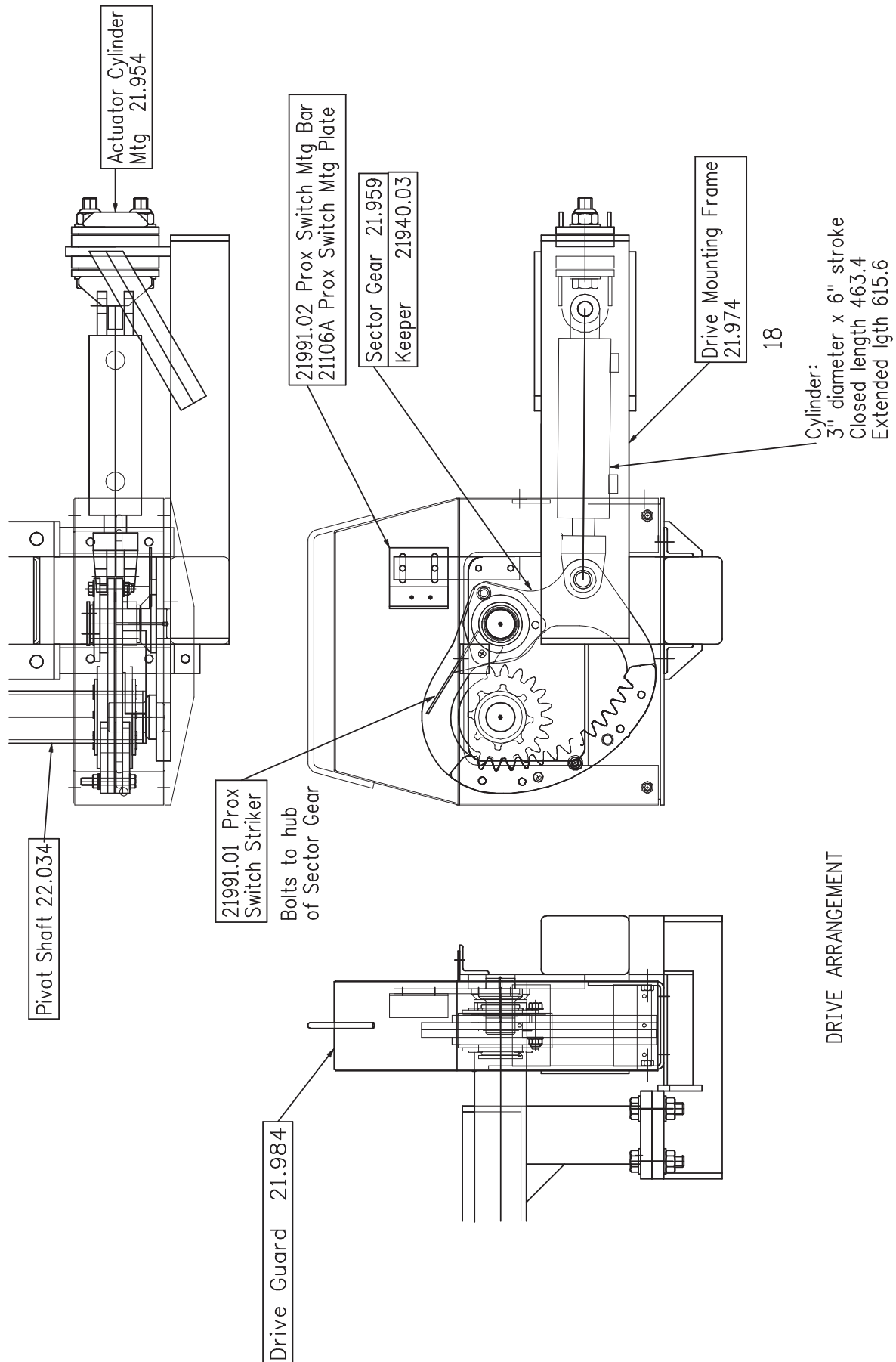


FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



Section 1 Drive Arrangement - Ref. Dwg. 22 032



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Caterpillar D9R- Dozer (Full Walkways)



Section 1 Installation and Mounting Instructions (cont.)

Maintenance Notes

NOTE

Follow all on-site/Mine lifting and safety procedures when installing PSFS 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).

FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



Section 2 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

FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



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 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].

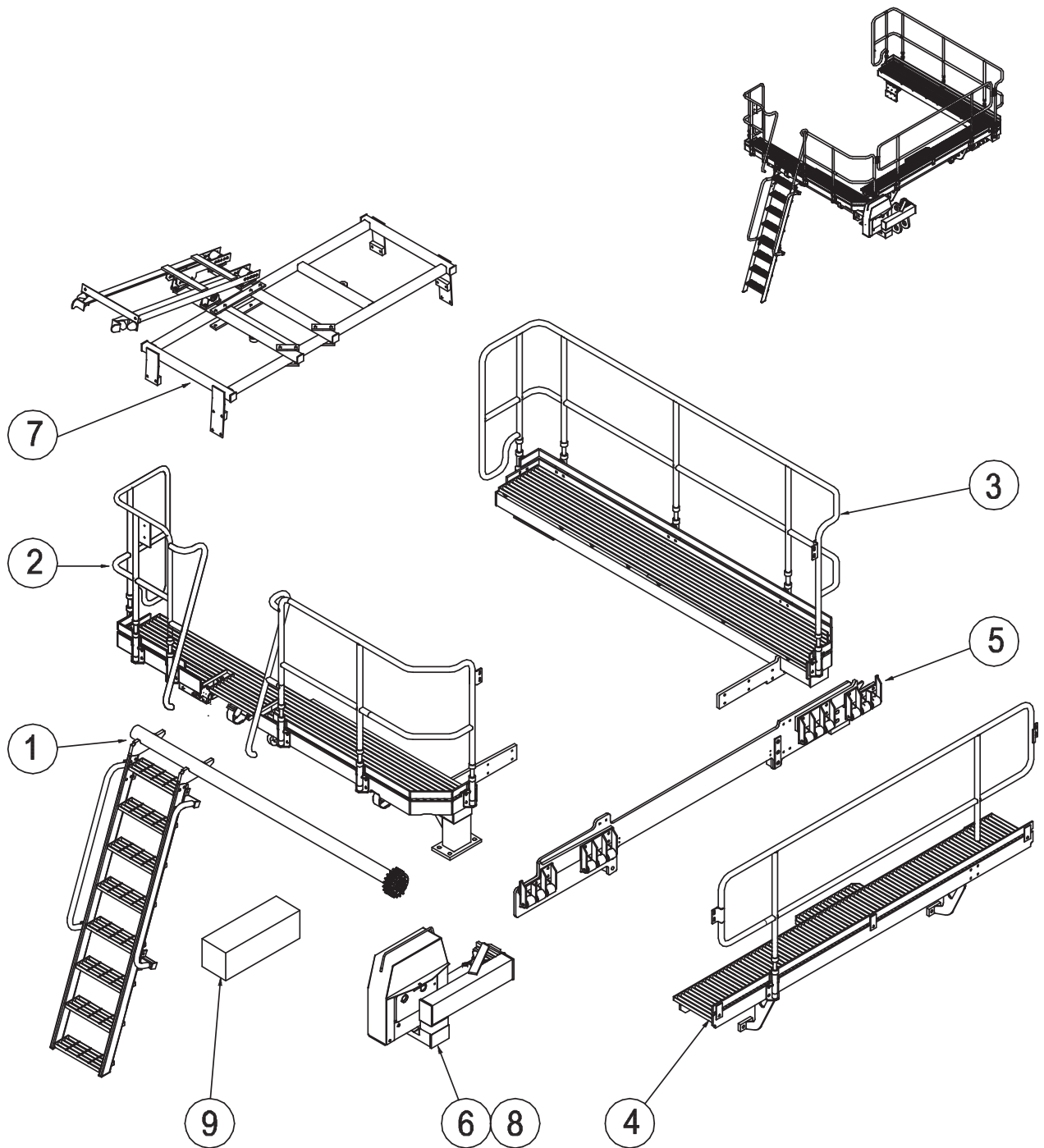
Test by raising and lowering the Power Step a couple of times and adjust again if necessary.

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Caterpillar D9 Dozer (Full Walkways)



Section 4 Assembly Complete



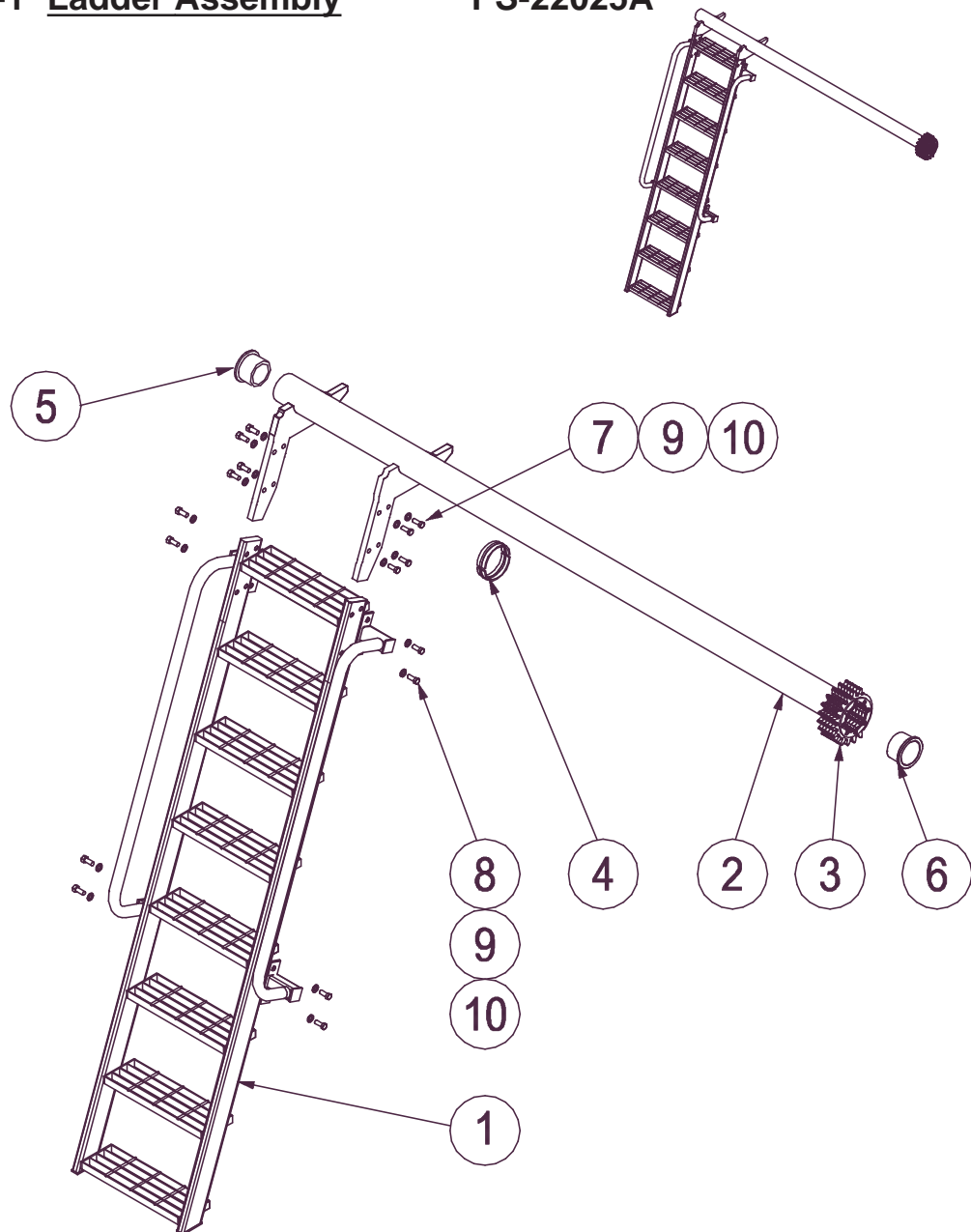
FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



Section 4-1 Ladder Assembly

PS-22025A



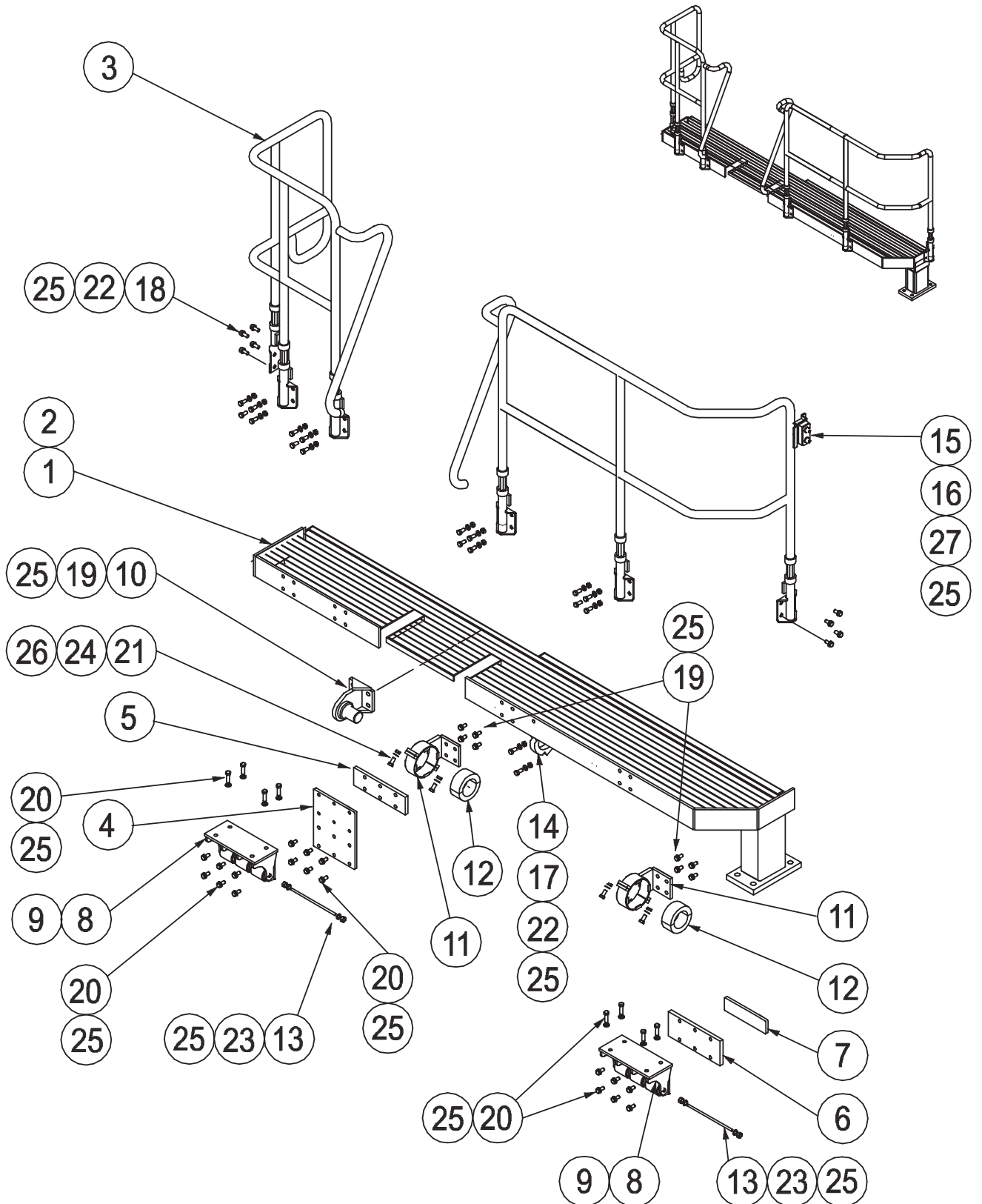
Item	Part No.	Part Name	Qty		
1	PS-22025	LADDER & HANDRAIL FABRICATION	1		
2	PS-22034	ROTATION SHAFT	1		
3	PS-21958	PINION ASSEMBLY	1		
4	PS-21926-01	LADDER SHAFT PIVOT BUSH-MIDDLE	1		
5	PS-21926-02	LADDER SHAFT PIVOT BUSH-NON DRIVE END	1		
6	PS-21926-03	LADDER SHAFT PIVOT BUSH- DRIVE END	1		
7	CPS-M12X45	BOLT-M12 x 45	8		
8	CPS-M12X30	BOLT-M12 x 30	8		
9	CPS-M12NZIP	NUT-M12	16		
10	CPS-M8NZIP	WASHER-M12	32		

FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



Section 4-2 Landing Assembly LHS PS-22022A



FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



Section 4-2 Landing Assembly LHS PS-22022A

See Drawing Page 13

Item	Part No.	Part Name	Qty		
1	PS-22022	SIDE LANDING BEAM	1		
2	PS-22023	SIDE LANDING FLOOR	1		
3	PS-22024	HANDRAIL	1		
4	PS-22045-01	ISOLATOR MOUNTING PLATE-FRONT	1		
5	PS-22045-02	ISOLATOR MOUNTING PAD-FRONT	1		
6	PS-22045-03	ISOLATOR MOUNTING PAD-REAR	1		
7	PS-22045-04	ISOLATOR PAD SPACER-REAR	1		
8	PS-22033	BEAM ISOLATOR BRACKET	2		
9	PS-21930A	ISOLATOR MOUNTINGS	6		
10	PS-21976	FRONT PIVOT PIN BRACKET	1		
11	PS-21941	ANTI VIBRATION BEARING	2		
12	PS-21941-06	RUBBER BUSH	2		
13	PS-21933	ISOLATOR BUSH PIN	2		
14	PS-21925	MIDDLE BEARING MOUNTING	1		
15	PS-22005-02/03	ISOLATOR RUBBER/CLAMP	2		
16	CPS-M12X75ZP	BOLT-M12 x 75	2		
17	CPS-M12X65ZP	BOLT-SOCKET HEAD-M12 x 65	2		
18	CPS-M12X35ZP	BOLT-M12 x 35	24		
19	CPS-M12X30ZP	BOLT-M12 x 30	12		
20	CPS-M12X25ZP	BOLT-M12 x 25	26		
21	CPS-M8X35ZP	BOLT-M8 x 35	8		
22	CPS-M12NZP	NUT-M12	24		
23	CPS-1/2"NN	NUT-NYLOC-1/2"UNC	4		
24	CPS-M8NN	NUT-NYLOC-M8	8		
25	CPS-M12WH	WASHER-HARDENED-M12	96		
26	CPS-M8WH	WASHER-HARDENED-M8	16		
27	CPS-M12NN	NUT-NYLOC-M12	2		

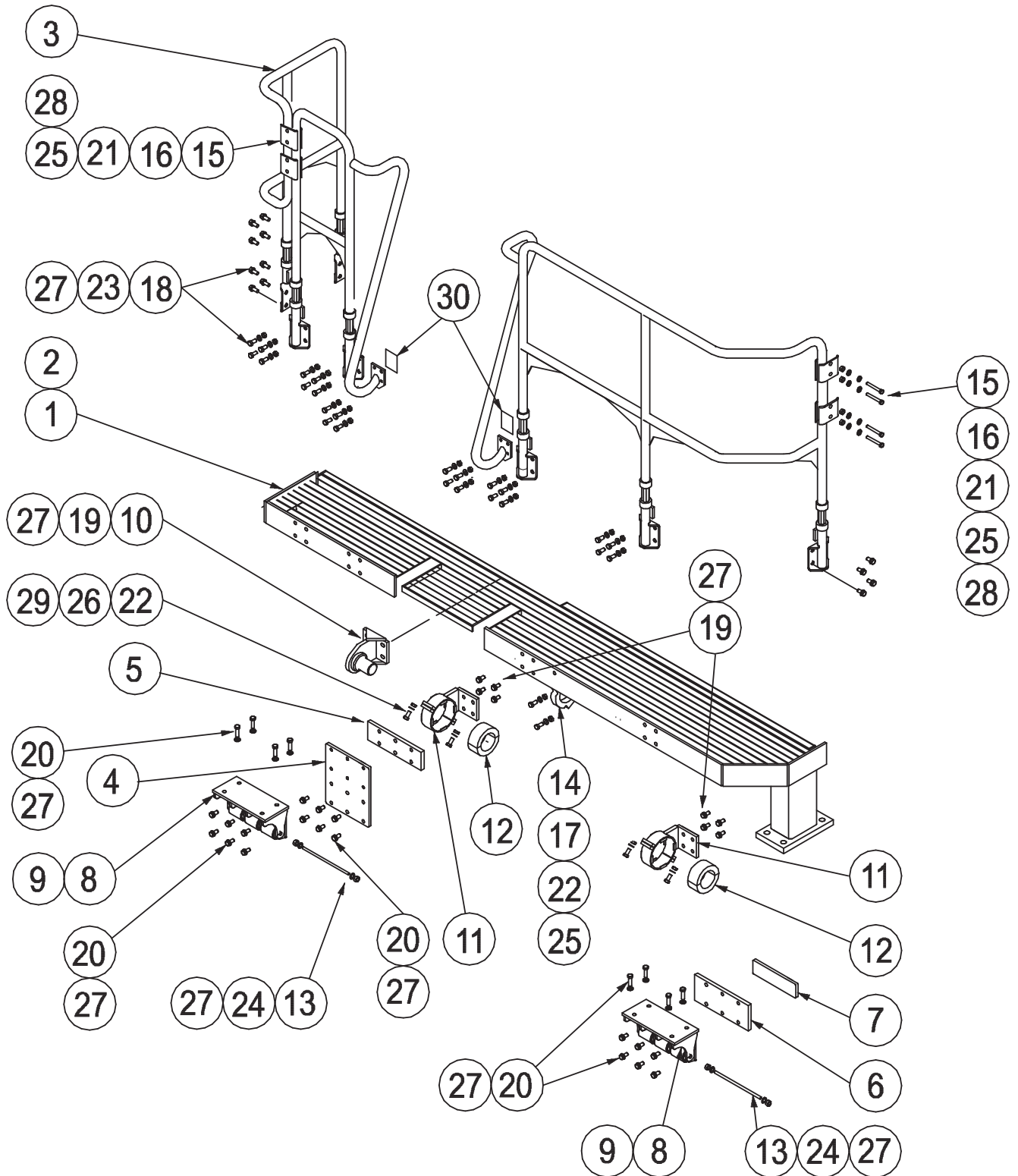
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Caterpillar D9R- Dozer (Full Walkways)



Section 4-2 Landing Assembly LHS
See Drawing Page 12

PS-22022A-NG



FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



Section 4-2 Landing Assembly LHS PS-22022A-NG

See Drawing Page 15

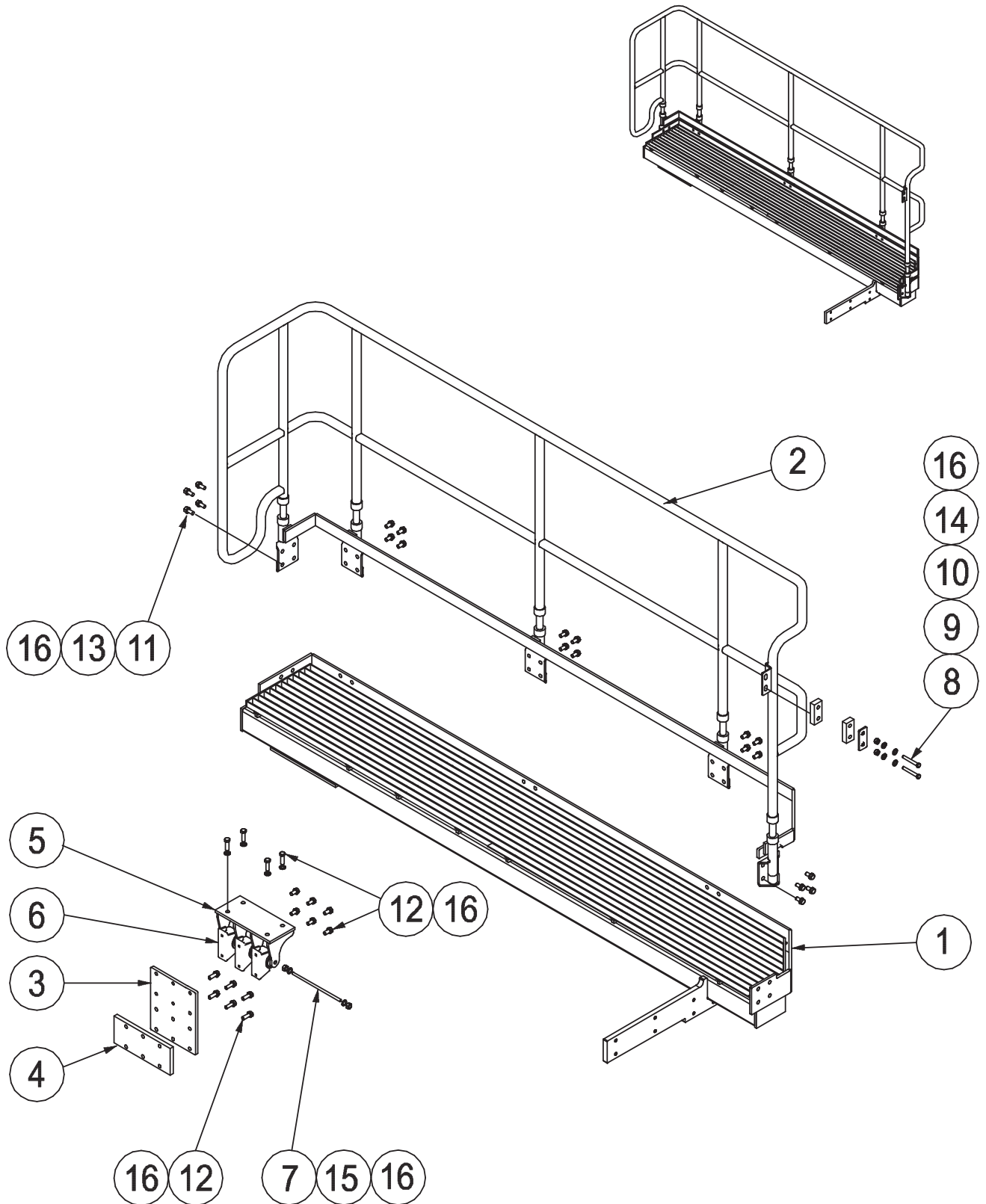
Item	Part No.	Part Name	Qty		
1	PS-22022	SIDE LANDING BEAM	1		
2	PS-22023	SIDE LANDING FLOOR	1		
3	PS-22024-NG	HANDRAIL-NEW GENERATION	1		
4	PS-22045-01	ISOLATOR MOUNTING PLATE-FRONT	1		
5	PS-22045-02	ISOLATOR MOUNTING PAD-FRONT	1		
6	PS-22045-03	ISOLATOR MOUNTING PAD-REAR	1		
7	PS-22045-04	ISOLATOR PAD SPACER-REAR	1		
8	PS-22033	BEAM ISOLATOR BRACKET	2		
9	PS-21930A	ISOLATOR MOUNTINGS	6		
10	PS-21976	FRONT PIVOT PIN BRACKET	1		
11	PS-21941	ANTI VIBRATION BEARING	2		
12	PS-21941-06	RUBBER BUSH	2		
13	PS-21933	ISOLATOR BUSH PIN	2		
14	PS-21925	MIDDLE BEARING MOUNTING	1		
15	PS-HRI-C11	RUBBER HOSE-PIRTEC	4		
16	PS-HRI-A06	HANDRAIL POST CLAMP-DOUBLE CLAMP ASSY	4		
17	CPS-M12X65ZP	BOLT-SOCKET HEAD-M12 x 65	2		
18	CPS-M12X35ZP	BOLT-M12 x 35	36		
19	CPS-M12X30ZP	BOLT-M12 x 30	12		
20	CPS-M12X25ZP	BOLT-M12 x 25	26		
21	CPS-M12X75ZP	BOLT-M10 x 75	8		
22	CPS-M8X35ZP	BOLT-M8 x 35	8		
23	CPS-M12NZP	NUT-M12	36		
24	CPS-1/2"NN	NUT-NYLOC-1/2"UNC	4		
25	CPS-10NN	NUT NYLOC-M10	8		
26	CPS-M8NN	NUT-NYLOC-M8	8		
27	CPS-M12WH	WASHER-HARDENED-M12	108		
28	CPS-M10WH	WASHER-HARDENED-M10	16		
29	CPS-M8WH	WASHER-HARDENED-M8	8		
30	PS-HRI-CO3	HANDRAIL RUBBER BLOCK	2		

FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



Section 4-3 Landing Assembly RHS PS-22042A



FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



Section 4-3 Landing Assembly RHS

PS-22042A

See Drawing Page 17

Item	Part No.	Part Name	Qty		
1	PS-22042	LANDING ASSEMBLY-RHS	1		
2	PS-22043	HANDRAIL-RHS	1		
3	PS-22045-01	ISOLATOR MOUNTING PLATE-FRONT	1		
4	PS-22045-02	ISOLATOR MOUNTING PAD-FRONT	1		
5	PS-22033	BEAM ISOLATOR BRACKET	1		
6	PS-21930A	ISOLATOR MOUNTINGS	3		
7	PS-21933	ISOLATOR BUSH PIN	1		
8	PS-22005-02	ISOLATOR CLAMP PLATE-HANDRAIL LINK	2		
9	PS-22005-03	ISOLATOR-HANDRAIL LINK	1		
10	CPS-M12X75ZP	BOLT-M12 x 75	2		
11	CPS-M12X35ZP	BOLT-M12 x 35	16		
12	CPS-M12X35ZP	BOLT-M12 x 25	16		
13	CPS-M12NZP	NUT-M12	16		
14	CPS-M12NN	NUT NYLOC-M12	2		
15	CPS-1/2"NN	NUT-NYLOC-1/2"UNC	2		
16	CPS-M12WH	WASHER-HARDENED-M12	54		

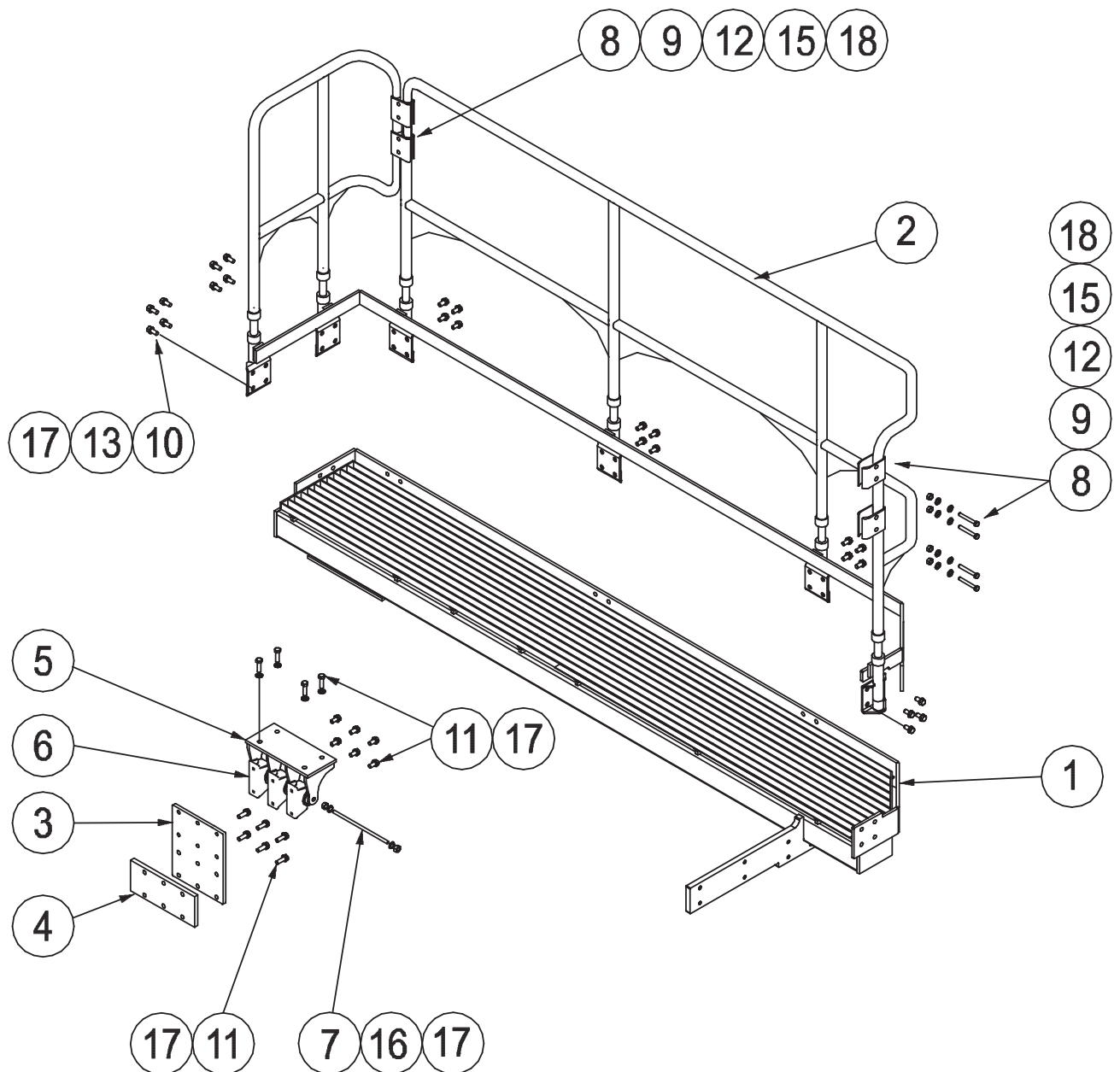
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Caterpillar D9R- Dozer (Full Walkways)



Section 4-3 Landing Assembly RHS
See Parts List Pg.20

PS-22042A-NG



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Caterpillar D9R- Dozer (Full Walkways)



Section 4-3 Landing Assembly RHS

PS-22042A-NG

See Drawing Page 19

Item	Part No.	Part Name	Qty		
1	PS-22042	LANDING ASSEMBLY-RHS	1		
2	PS-22043-NG	HANDRAIL-RHS- NEW GENERATION	1		
3	PS-22045-01	ISOLATOR MOUNTING PLATE-FRONT	1		
4	PS-22045-02	ISOLATOR MOUNTING PAD-FRONT	1		
5	PS-22033	BEAM ISOLATOR BRACKET	1		
6	PS-21930A	ISOLATOR MOUNTINGS	3		
7	PS-21933	ISOLATOR BUSH PIN	1		
8	PS-HRI-C11	RUBBER HOSE-PIRTEC	4		
9	PS-HRI-A06	HANDRAIL POST CLAMP-DOUBLE CLAMP ASSY.	4		
10	CPS-M12X35ZP	BOLT-M12 x 35	16		
11	CPS-M12X25ZP	BOLT-M12 x 25	2		
12	CPS-M10X75ZP	BOLT-M10 x 75	8		
13	CPS-M12NZP	NUT-M12	16		
14	CPS-M12NN	NUT NYLOC-M12	16		
15	CPS-M10NN	NUT NYLOC-M10	8		
16	CPS-1/2"NN	NUT-NYLOC-1/2"UNC	2		
17	CPS-M12WH	WASHER-HARDENED-M12	54		
18	CPS-M10WH	WASHER-HARDENED-M10	16		

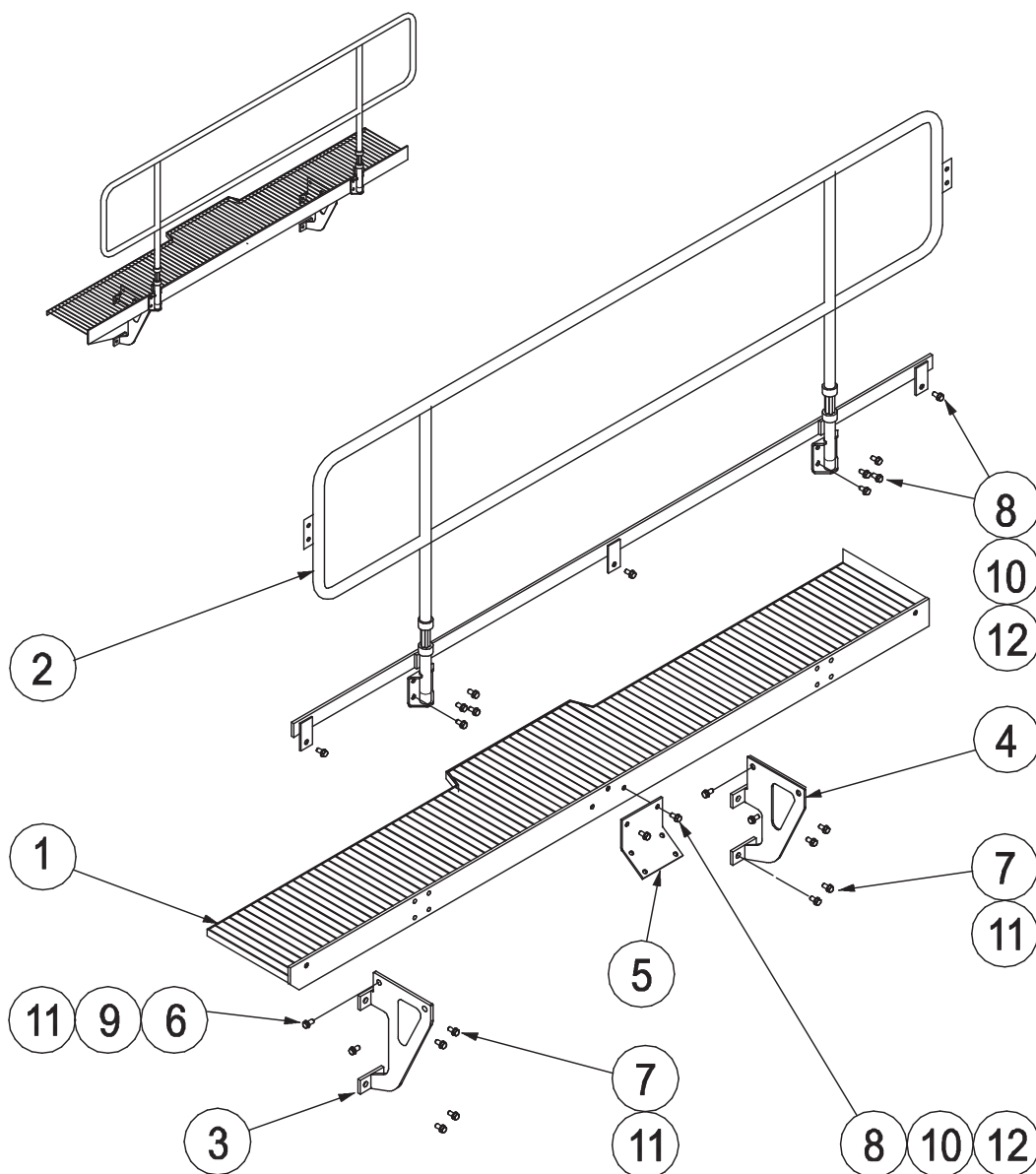
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Caterpillar D9R- Dozer (Full Walkways)



Section 4-4 Landing Assembly - Rear

PS-22020A



Item	Part No.	Part Name	Qty		
1	PS-22020	LANDING-REAR	1		
2	PS-22021	HANDRAILS-REAR	1		
3	PS-22020-05	MOUNTING BRACKET-LHS	1		
4	PS-22020-06	MOUNTING BRACKET-RHS	1		
5	PS-21990	RIPPER LIGHT BRACKET	1		
6	CPS-M16X50ZP	BOLT-M16 x 50	4		
7	CPS-M16X30ZP	BOLT-M16 x 30	8		
8	CPS-M12X35ZP	BOLT-M12 x 35	13		
9	CPS-M16NZP	NUT-M16	4		
10	CPS-M12NZP	NUT-M12	13		
11	CPS-M16WH	WASHER-HARDENED-M16	16		
12	CPS-M12WH	WASHER-HARDENED-M12	26		

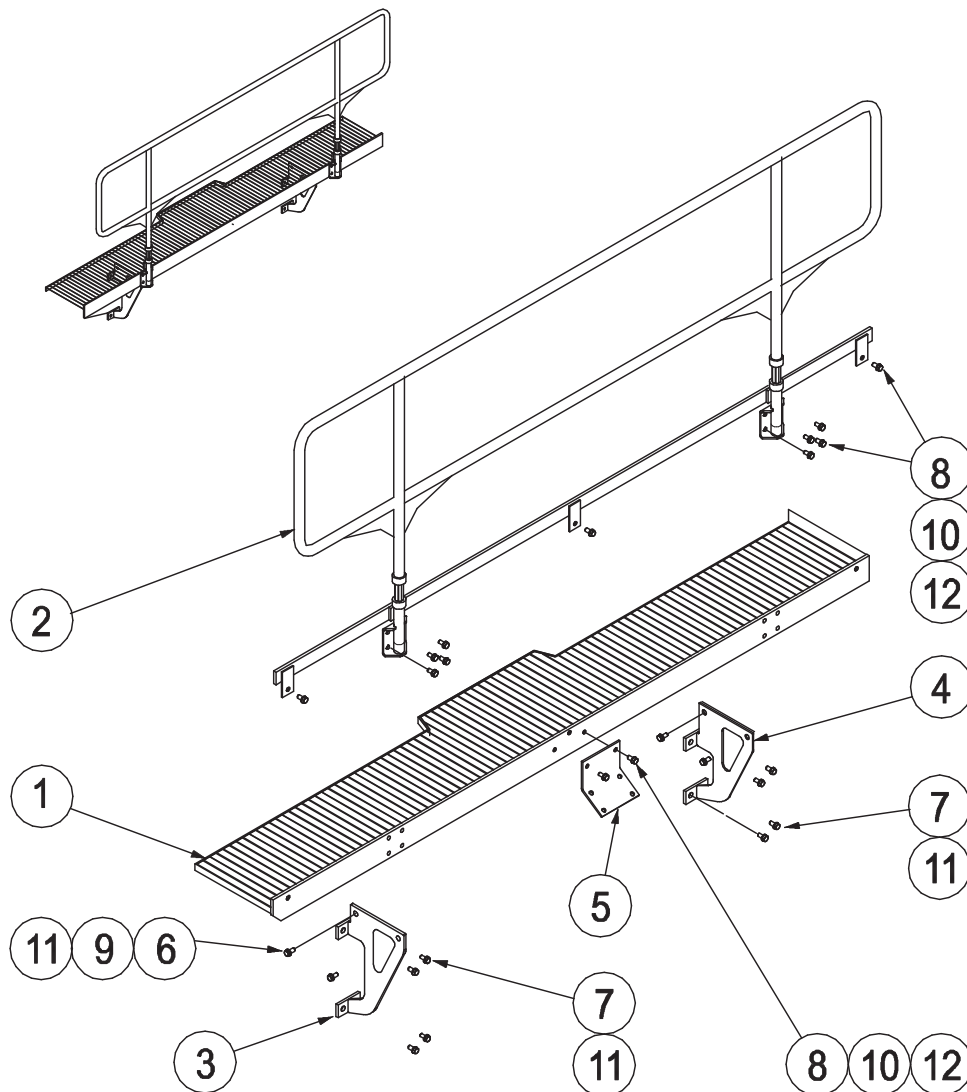
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Caterpillar D9R- Dozer (Full Walkways)



Section 4-4 Landing Assembly - Rear

PS-22020A-NG



Item	Part No.	Part Name	Qty		
1	PS-22020	LANDING-REAR	1		
2	PS-22021-NG	HANDRAILS-REAR- NEW GENERATION	1		
3	PS-22020-05	MOUNTING BRACKET-LHS	1		
4	PS-22020-06	MOUNTING BRACKET-RHS	1		
5	PS-21990	RIPPER LIGHT BRACKET	1		
6	CPS-M16X45ZP	BOLT-M16 x 45	4		
7	CPS-M16X30ZP	BOLT-M16 x 30	8		
8	CPS-M12X35ZP	BOLT-M12 x 35	13		
9	CPS-M16NZP	NUT-M16	4		
10	CPS-M12NZP	NUT-M12	13		
11	CPS-M16WH	WASHER-HARDENED-M16	16		
12	CPS-M12WH	WASHER-HARDENED-M12	26		

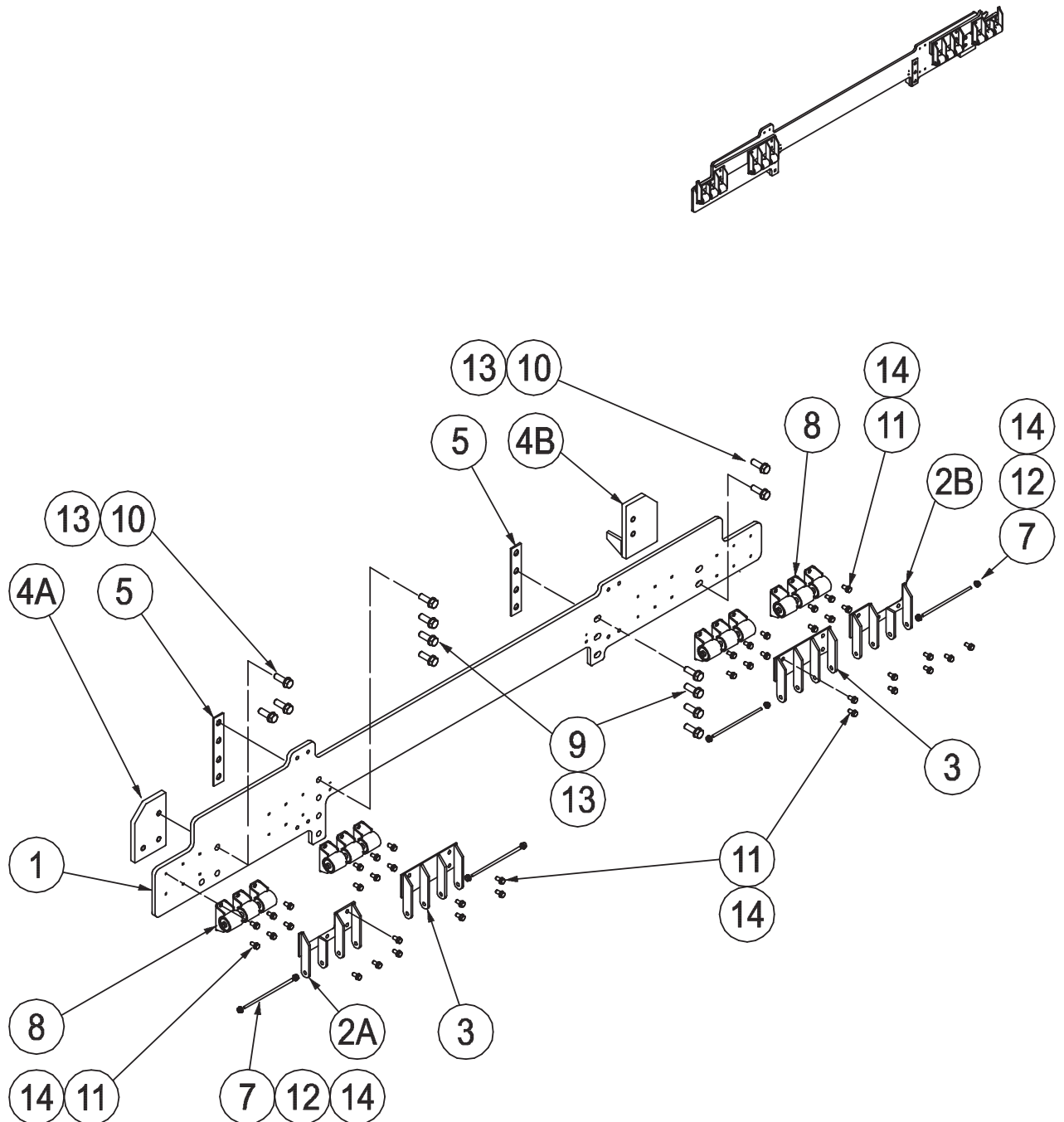
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Caterpillar D9R- Dozer (Full Walkways)



Section 4-5 Spreader Assembly

PS-22041A



FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



Section 4-5 Spreader Assembly PS-22041A

See Drawing Page 23

Item	Part No.	Part Name	Qty		
1	PS-22041	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		
4A	PS-22028-03/05	MOUNTING PAD-OUTER-LEFT	1		
4B	PS-22046	MOUNTING PAD-OUTER-RIGHT	1		
5	PS-22028-01	MOUNTING PAD-INNER-LEFT	1		
6	PS-22028-02	MOUNTING PAD-INNER-RIGHT	1		
7	PS-21933	ISOLATOR BUSH PIN	4		
8	PS-21930A	ISOLATOR MOUNTING	12		
9	PS-M20X45ZP	BOLT-M20 x 45	7		
10	PS-M20X35ZP	BOLT-M20 x 35	5		
11	CPS-M12X25ZP	BOLT-M12 x 25	40		
12	CPS-1/2"NN	NUT-NYLOC-1/2" UNC	8		
13	PS-M20WH	WASHER-HARDENED-M20	12		
14	CPS-M12WH	WASHER-HARDENED-M12	48		

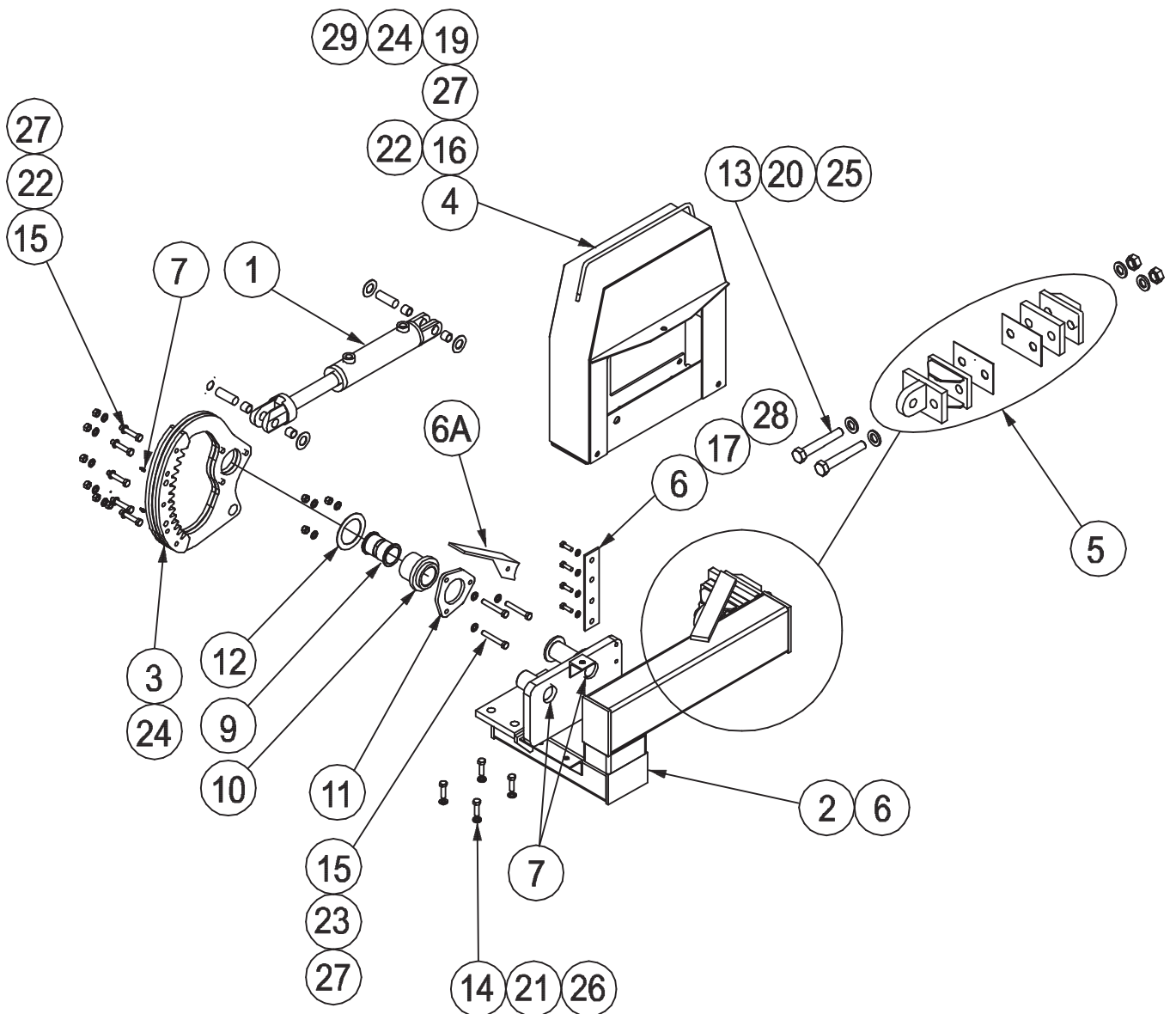
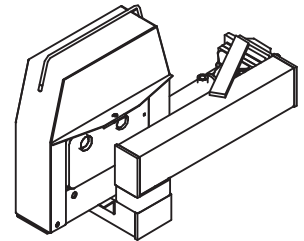
FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



Section 4-6 Drive Unit Assembly

PS-21974A



FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



Section 4-6 Drive Unit Assembly

PS-21974A

See Drawing Page 25

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		

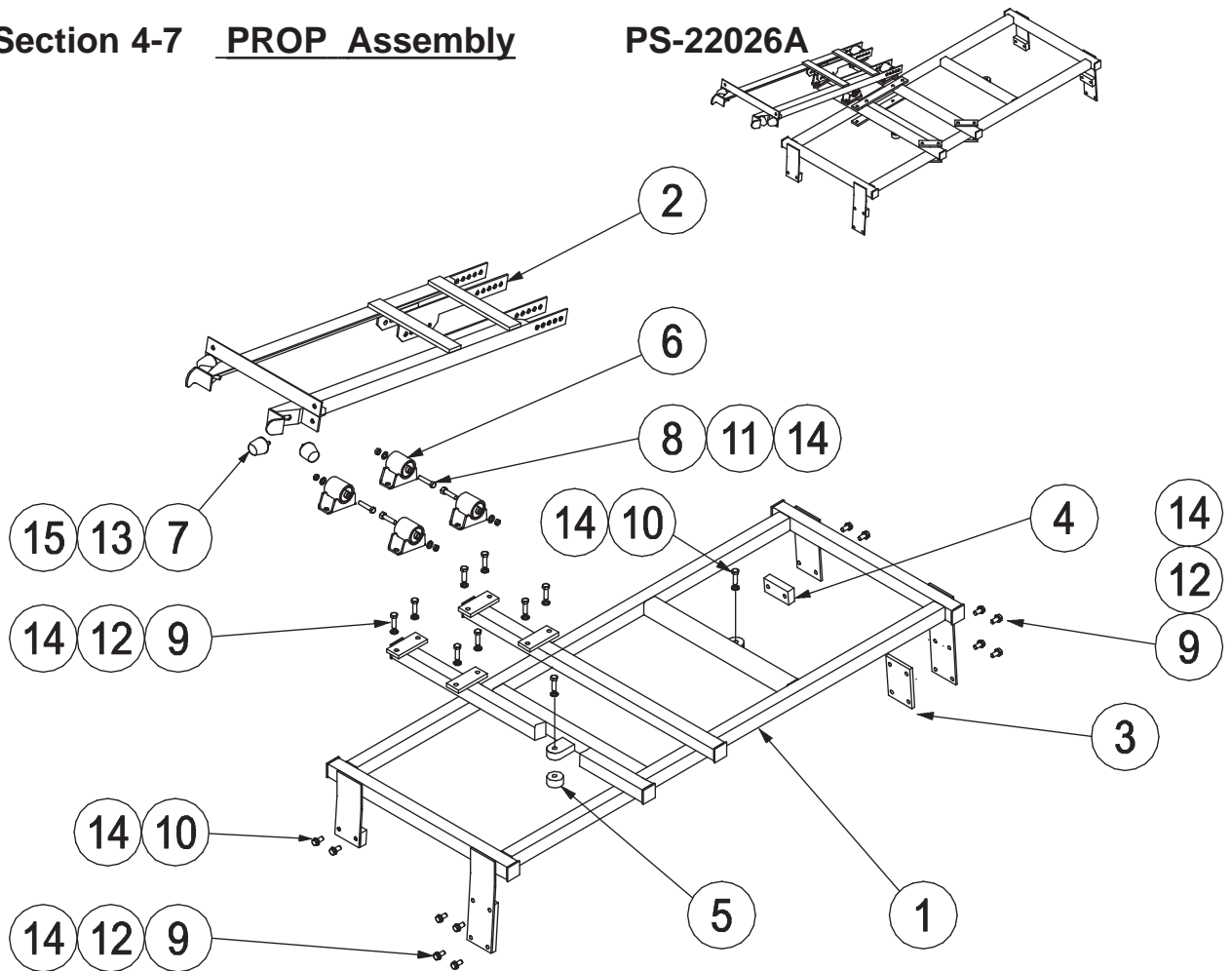
FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



Section 4-7 PROP Assembly

PS-22026A



Item	Part No.	Part Name	Qty		
1	PS-22026	PROP MOUNTING FRAME	1		
2	PS-21945	PROP	1		
3	PS-22026-13	REAR CLEAT SPACER	2		
4	PS-22026-14	FRONT CLEAT BOLTING PAD	2		
5	PS-22026-16	ROOF BUTTON	2		
6	PS-21930A	ISOLATOR MOUNTING	4		
7	PS-40003	BUFFER	4		
8	CPS-M12X120ZP	BOLT-M12 x 120	4		
9	CPS-M12X40ZP	BOLT-M12 x 40	8		
10	CPS-M12X30ZP	BOLT-M12 x 30	6		
11	CPS-M12NN	NUT-NYLOC-M12	4		
12	CPS-M12ZP	NUT-M12	16		
13	CPS-M10ZP	NUT-M10	4		
14	CPS-M12WH	WASHER-HARDENED-M12	46		
15	CPS-M10WH	WASHER-HARDENED-M10	4		

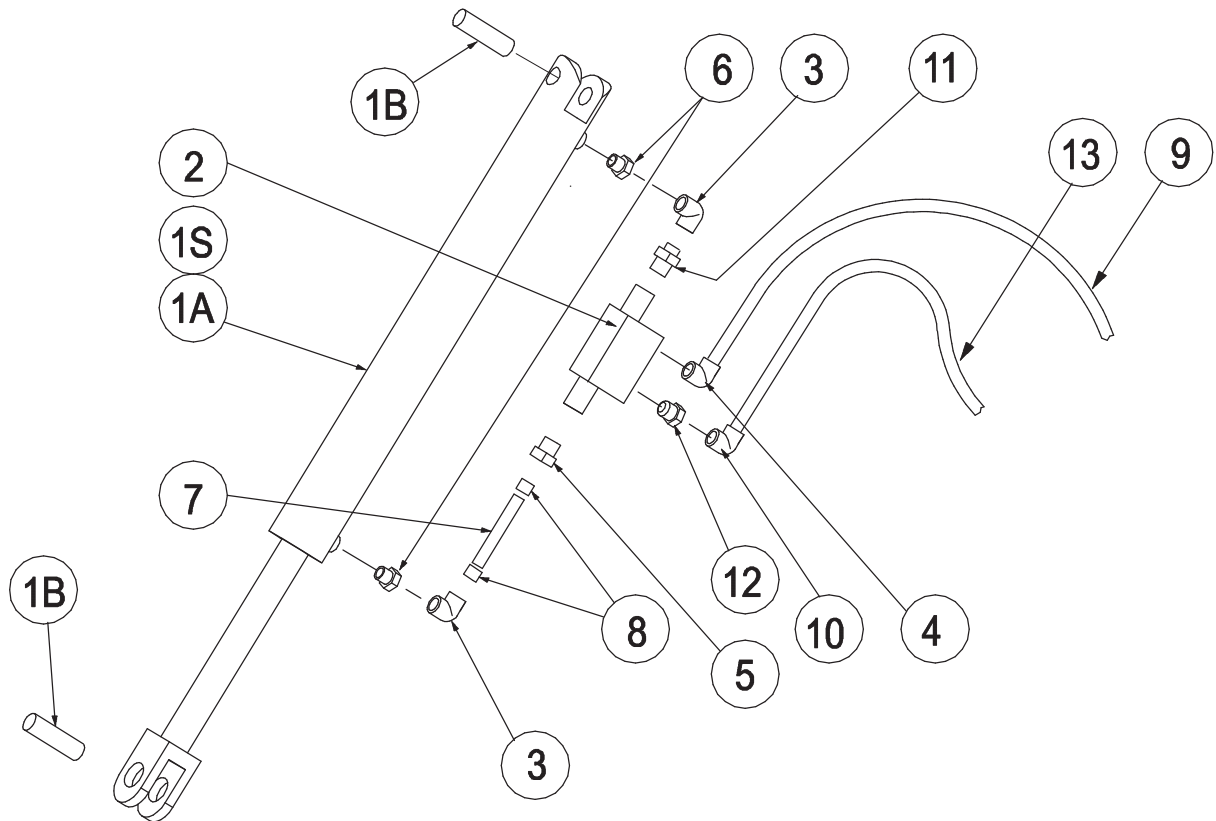
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Caterpillar D9R- Dozer (Full Walkways)



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	PS-61163	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

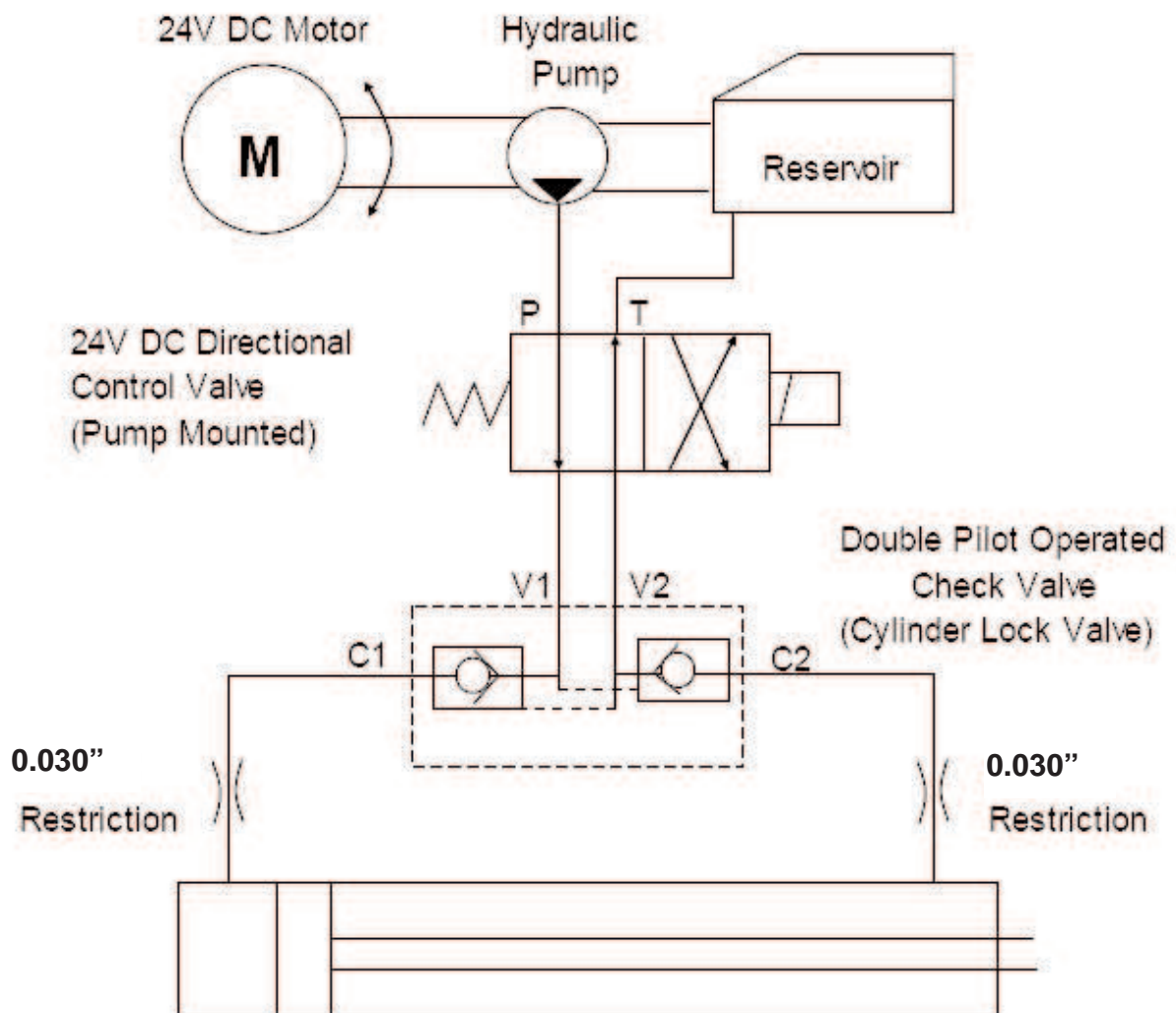
Caterpillar D9R- Dozer (Full Walkways)



Section 4-8 Hydraulic Cylinder (Valve Diagram)

See also Drawing Page 27

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



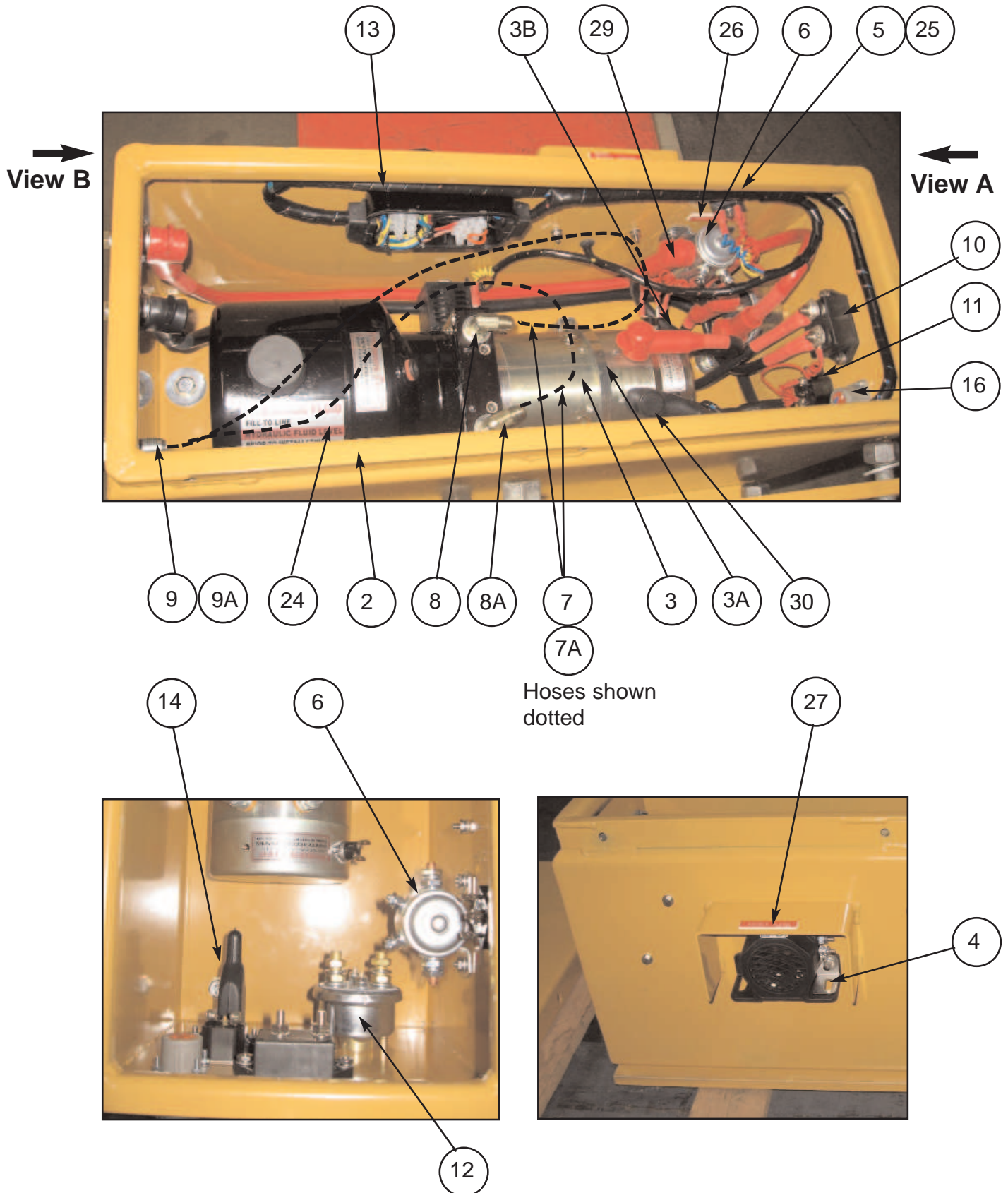
FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



Section 4-9 Power Pack
See Parts Page 32

PS-80103A-SLD



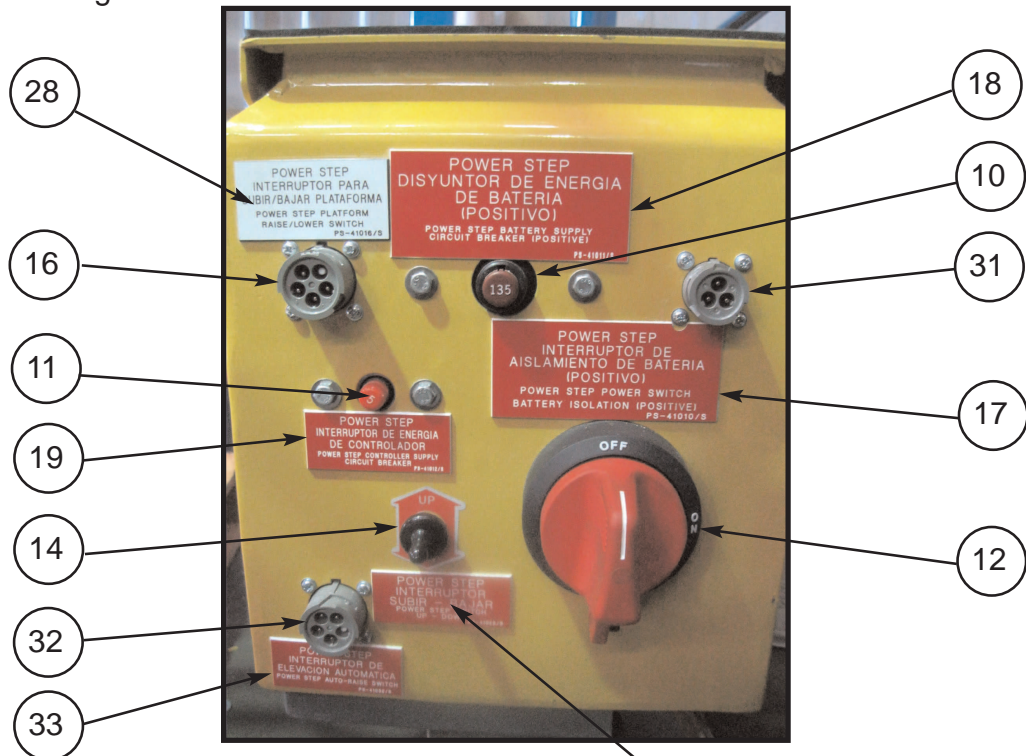
FOLDING LADDER Caterpillar D9R- Dozer (Full Walkways)



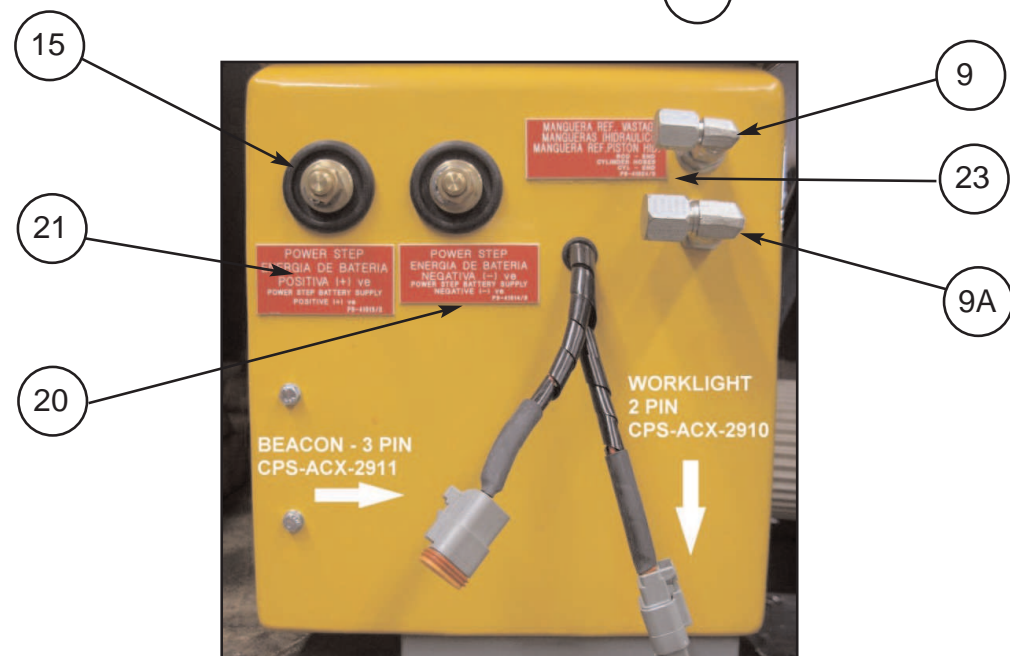
Section 4-9 Power Pack

PS-80103A-SLD

See Parts List Pg 32



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 D9R- Dozer (Full Walkways)



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

See Photos Pg 30 & 31

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

FOLDING LADDER

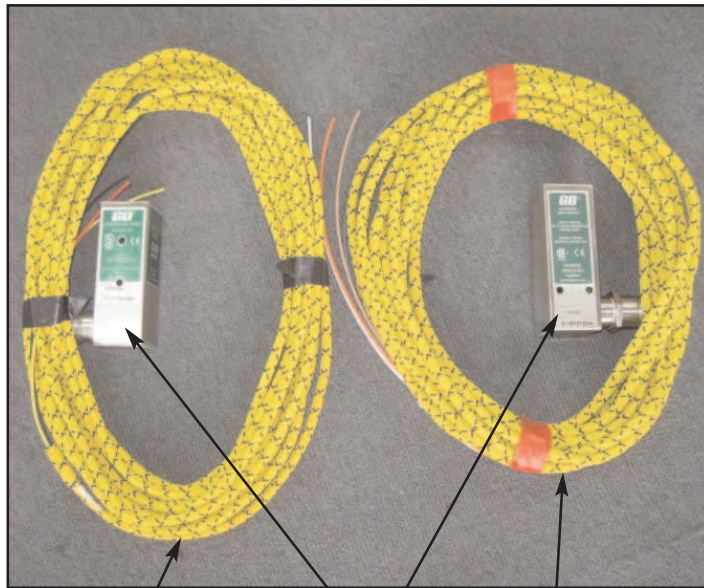
Caterpillar D9R- Dozer (Full Walkways)



Section 4-10 Electrical Controls

Proximity Switch Assembly

Mounted on Fixed Landing



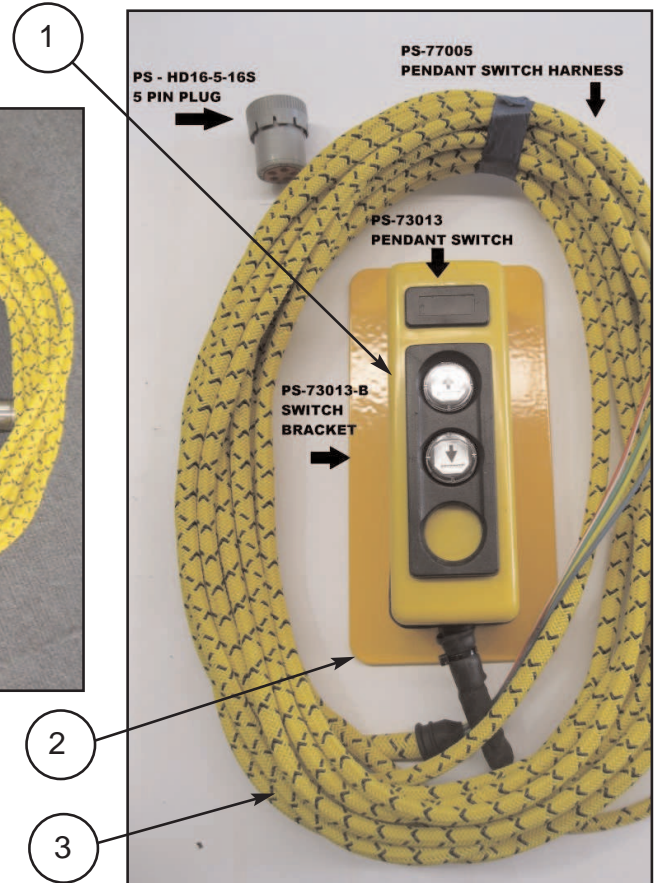
5

6

4

Control Pendant Switch

Mounted on Handrail



1

2

3

Cab Harness & Equipment

Refer Wiring Harness Drawings



7

8

FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



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

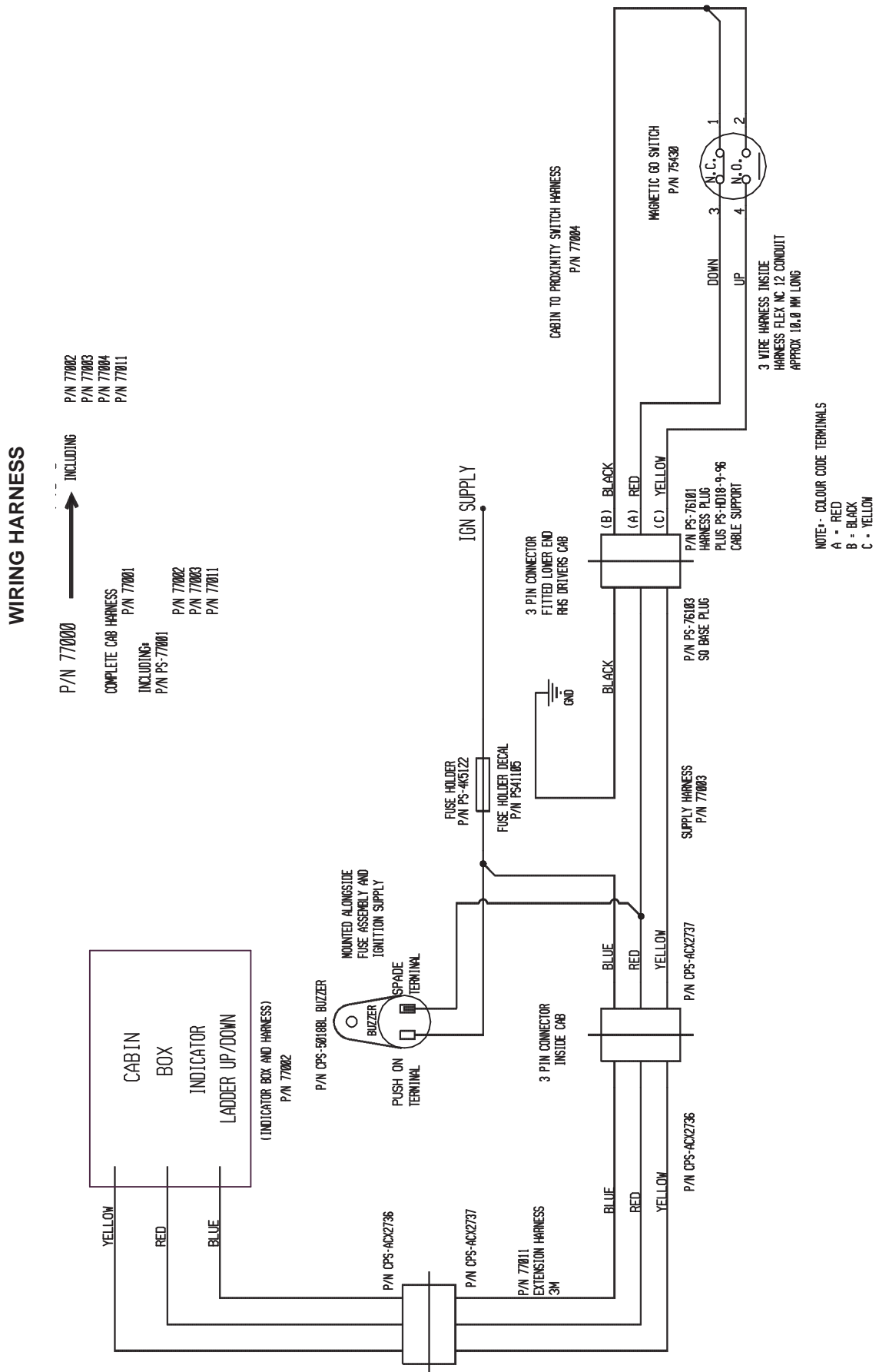
**LOW OR FAULTY BATTERIES WILL VOID
WARRANTY ON THE POWER PACK AND ALL
ELECTRICAL SWITCHES AND COMPONENTS**

FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



Section 4-10 Electrical Controls - Wiring Page.1

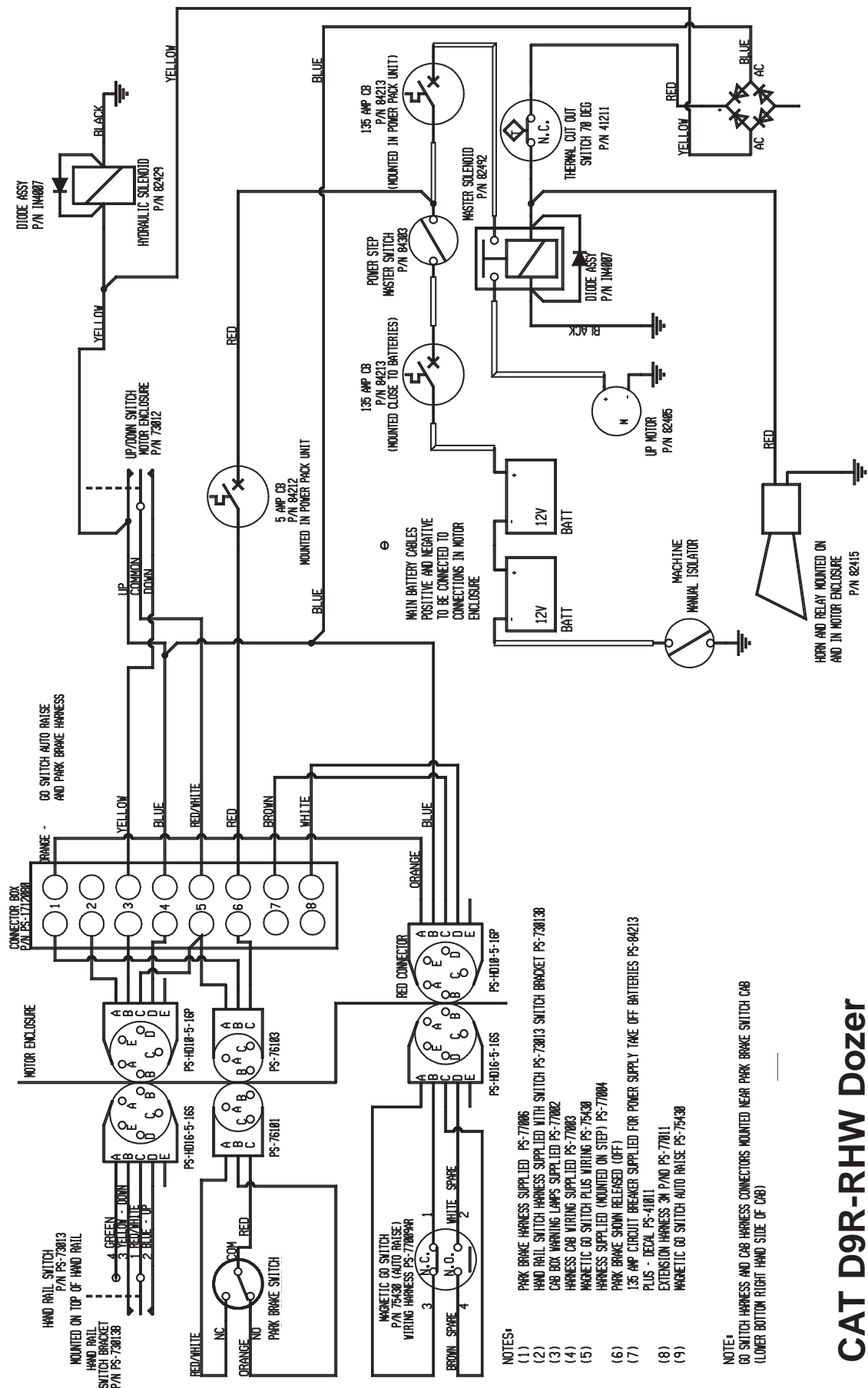


FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



Section 4-10 Electrical Controls - Wiring Page 2



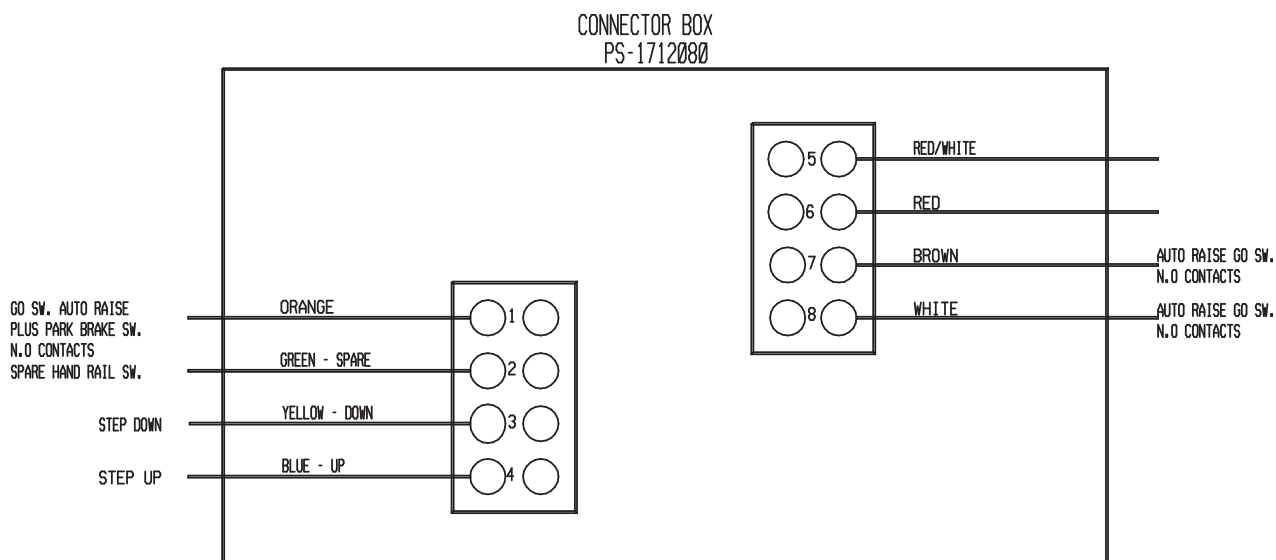
CAT D9R-RHW Dozer

FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



Section 4-10 Electrical Controls - Wiring Page 3



PARK BRAKE HARNESS	-	P/N PS-77006-PB	3 PIN PLUG CONNECTOR PINS MOTOR ENCLOSURE	
RED	-	COM	(C)	LENGTH 10M
RED/WHITE	-	N.C.	(A)	(HARNESS FLEX NO 12)
ORANGE	-	N.O.	(B)	

GO SWITCH HARNESS (AUTO RAISE)	-	P/N PS-77009-AR	5 PIN PLUG CONNECTOR PINS MOTOR ENCLOSURE	
BLUE	-	NO 1 TERMINAL N.C. CONTACT	(B)	LENGTH 10M
WHITE (SPARE)	-	NO 2 TERMINAL N.O. CONTACT	(D)	(HARNESS FLEX NO 12)
ORANGE	-	NO 3 TERMINAL N.C. CONTACT	(A)	
BROWN (SPARE)	-	NO 4 TERMINAL N.O. CONTACT	(C)	

GO SWITCH HARNESS (CABIN TO GO SWITCH) (CABIN INDICATOR LADDER UP/DOWN)	-	P/N PS-77004	3 PIN PLUG CONNECTOR PINS LOWER R/H OUTSIDE CAB	
BLACK	-	NO 1 TERMINAL N.C. CONTACT	(B)	LENGTH 10M
BLACK	-	NO 2 TERMINAL N.O. CONTACT		(HARNESS FLEX NO 12)
(BRIDGE NO 1 AND NO 2 IN GO SW)				
RED	-	NO 3 TERMINAL N.C. CONTACT	(A)	
YELLOW	-	NO 4 TERMINAL N.O. CONTACT	(C)	

HAND RAIL SWITCH HARNESS (P/NO 77010) (HANDRAIL SW TO POWER PACK BOX)			5 PIN PLUG CONNECTOR PINS MOTOR ENCLOSURE	
COLOUR	SW CONTACTS	TERMINAL NO		
RED/WHITE	- NO 1 -	NO 5	(C)	LENGTH 10M
BLUE	- NO 2 -	NO 4	(D)	(HARNESS FLEX NO 12)
YELLOW	- NO 3 -	NO 3	(B)	
GREEN	- NO 4 -	NO 2	(A)	

FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



Section 4-10 Electrical Controls - Wiring Page 4

GO SWITCH - CABIN INDICATOR P/S-77002

SUPPLIED WITH CONNECTOR P/N CPS-ACX2736

UP/DOWN LIGHTS

N.C.	-	RED	-	BLACK] LINKED
N.O.	-	YELLOW	-	BLACK	

HAND CONTROL SWITCH - MOUNTED ON HANDRAILS - P/N 73013

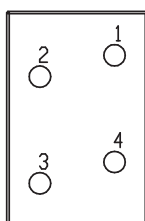
POWER STEP WIRING HARNESS (10M) AND CONNECTIONS SUPPLIED

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



P/N PS-77013

HARNESS AND CONNECTIONS SUPPLIED WITH SWITCH P/N 77013 (NOT REQUIRED)

1	-	POWER	-	GREEN] [FRS POWER PACK SYSTEM ONLY]
2	-	UP SWITCH	-	WHITE	
3	-	DOWN SWITCH	-	BLACK	
4	-	START/SOL MOTOR	-	RED	

FOLDING LADDER

Caterpillar D9R- Dozer (Full Walkways)



Material Kit supplied

PS-P/PACK-ISO. KIT

