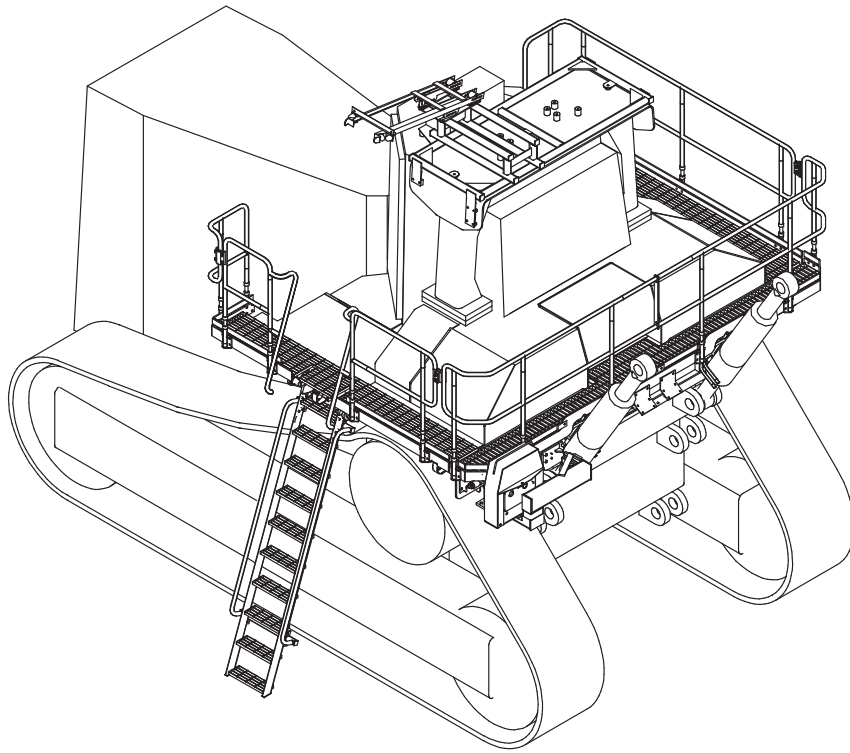


# FOLDING LADDER

## Manual for Cat D11T Dozer Complete with Wrap-around Walkways



Model No.PSA-D11T-F/L+RHWW  
Serial No.:D11T-RHW-001 - ~  
Date Manufactured: April 2008

# FOLDING LADDER

## Caterpillar D11T Dozer



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# FOLDING LADDER

## Caterpillar D11T Dozer



### Installation and Mounting Instructions

See Drawings 23 185, 23 186 & 23 182 (Page 4,5 & 7)

#### **NOTE**

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

### Installation and Mounting Instructions

#### PROCEDURE

See Dwg **23 185**

1. Remove cover plate at the back of the mudguards then remove horn/s.
2. Fit Bolting Pads/Blocks as shown including pads on the side of the right hand mudguard.
3. Re-locate horn/s to suit.

See Dwg **23 186**

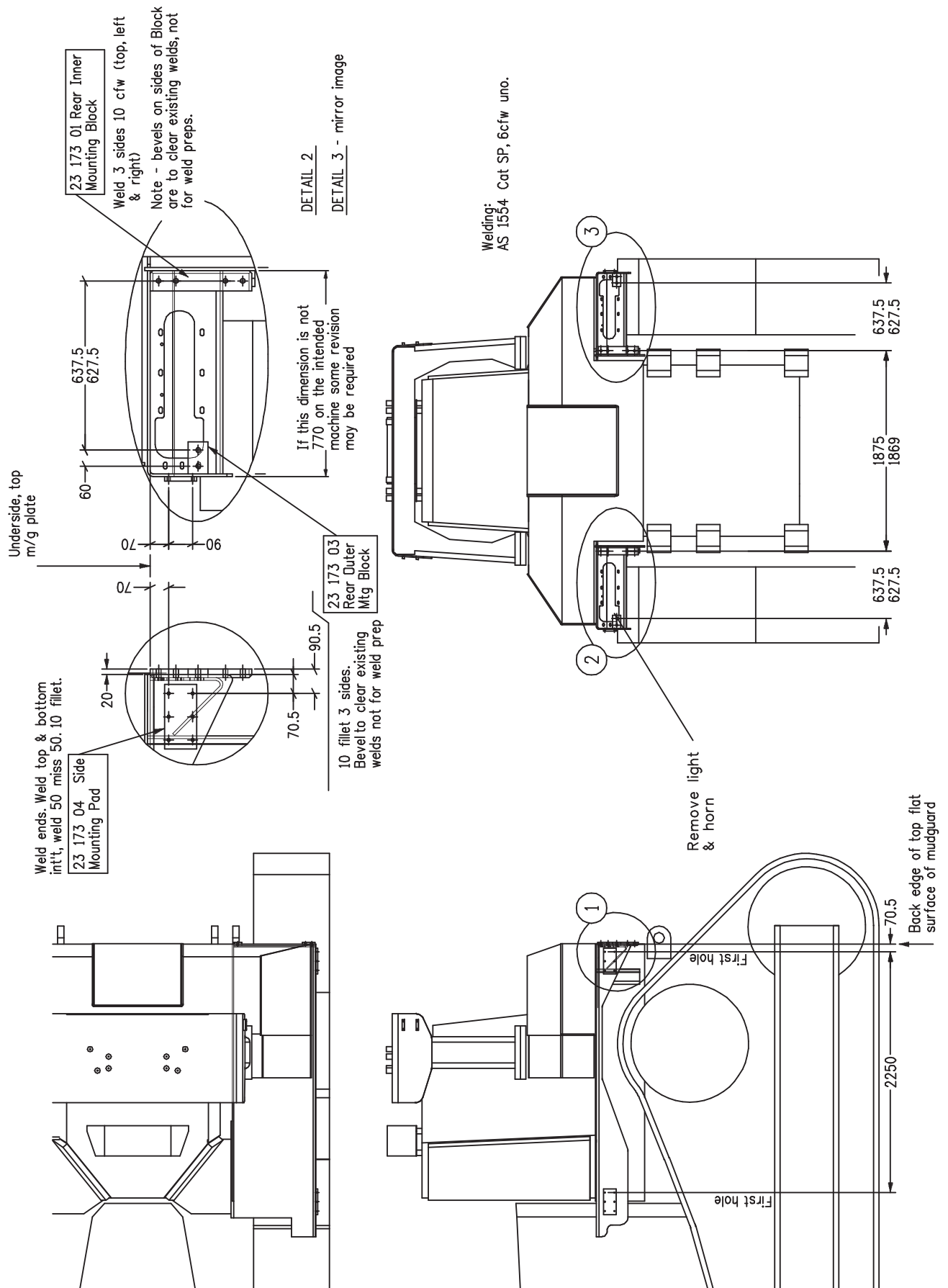
1. Per View 1, fit 23 170 Rear Spreader Plate to the rear of the machine, bolted to the mounting blocks welded to the mudguards etc. Fit Washer Plates (provided) under bolt heads - Washer Plates not shown.
2. Fit Landing Brackets and Isolators to Spreader Plate, **View 1**.
3. Fit Isolators to mounting plates welded to sides of mudguards per View 1. Right side of machine also. Fit Isolator Pin Brackets to Isolators. Note (per **View 2**) that the 'neck' of the Isolator Pin Bracket is offset - install with the neck near to the machine & therefore the rectangular bolting plate away from the machine.
4. Per **View 3**, put the left side landing (complete with ladder) on the Isolator Pin Brackets (Item iii.) and bolt on. See also **View 4**. Also fit Isolator Pin Brackets to the arm on the rear end of the side landing main beam and attach to Isolators (on Spreader Plate) using Isolator Bush Pin.
5. Fit right side landing, same as left side.
6. Per **View 6**, fit Rear Landing to brackets on Spreader Plate. Spreader bars under floor of rear landing come down on the inside of the supporting bracket. Bracket bolting flanges point away from m/c. See also **View 8**.
7. Fit also Rear Landing Handrail (in 2 pieces) to Rear Landing. Bolt halves together at joining flange and join toeboard with splice piece. Weld Isolator Handrail Link to handrail/s to suit, left and right sides.
8. Grease the gears in the drive mechanism.
9. Per **View 7**, fit Flooring Extension to the side walkways beside the fuel tank and accessories enclosure. Trim Extension to suit. Weld to suit.

# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 1 Installation Instruction Drawings - 23 185

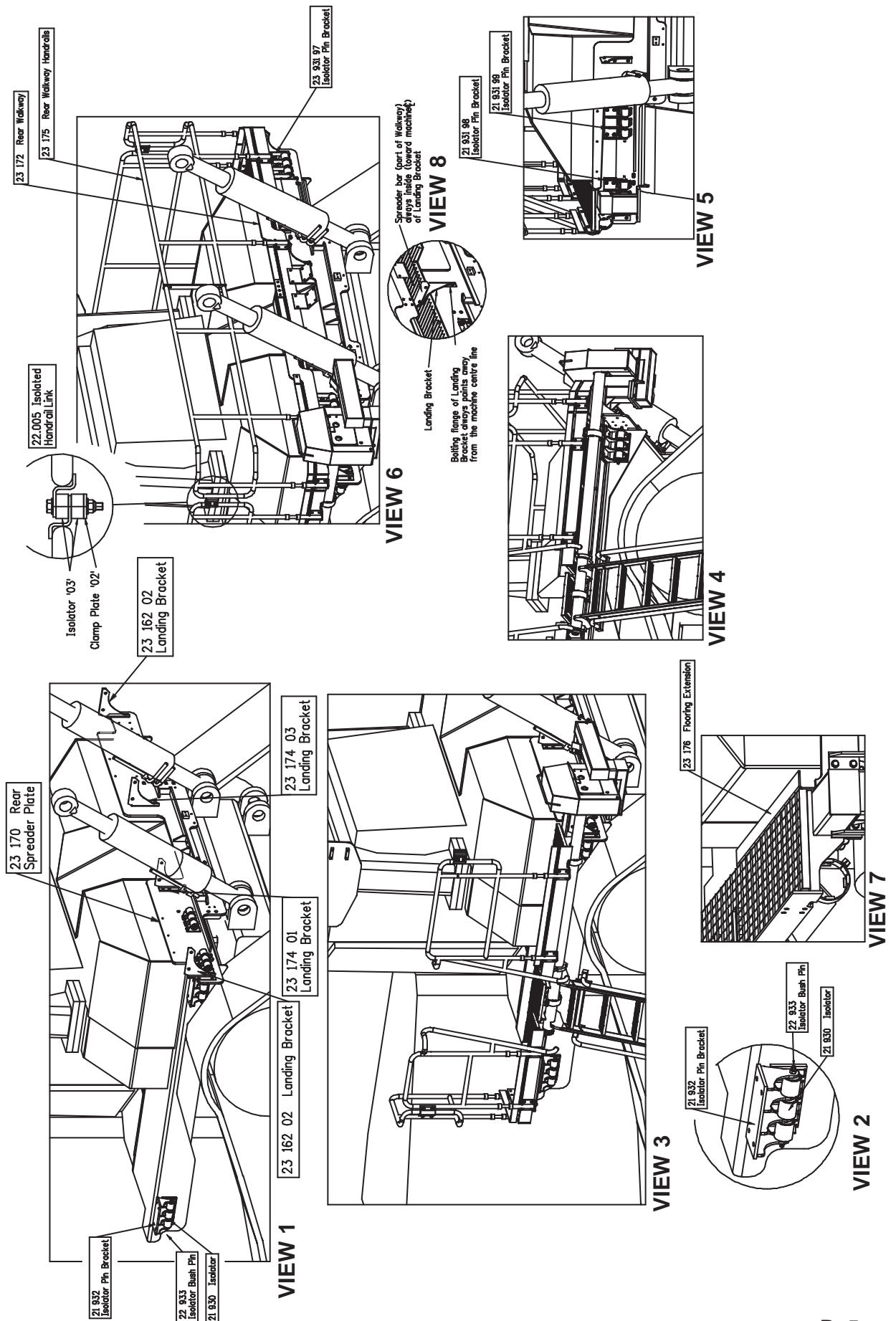


# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 1 Installation Instruction Drawings - 23 186



# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 1 Installation Instruction Drawings

**Prop System - 23 182** See Page 7

#### **NOTE**

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

#### **PROCEDURE**

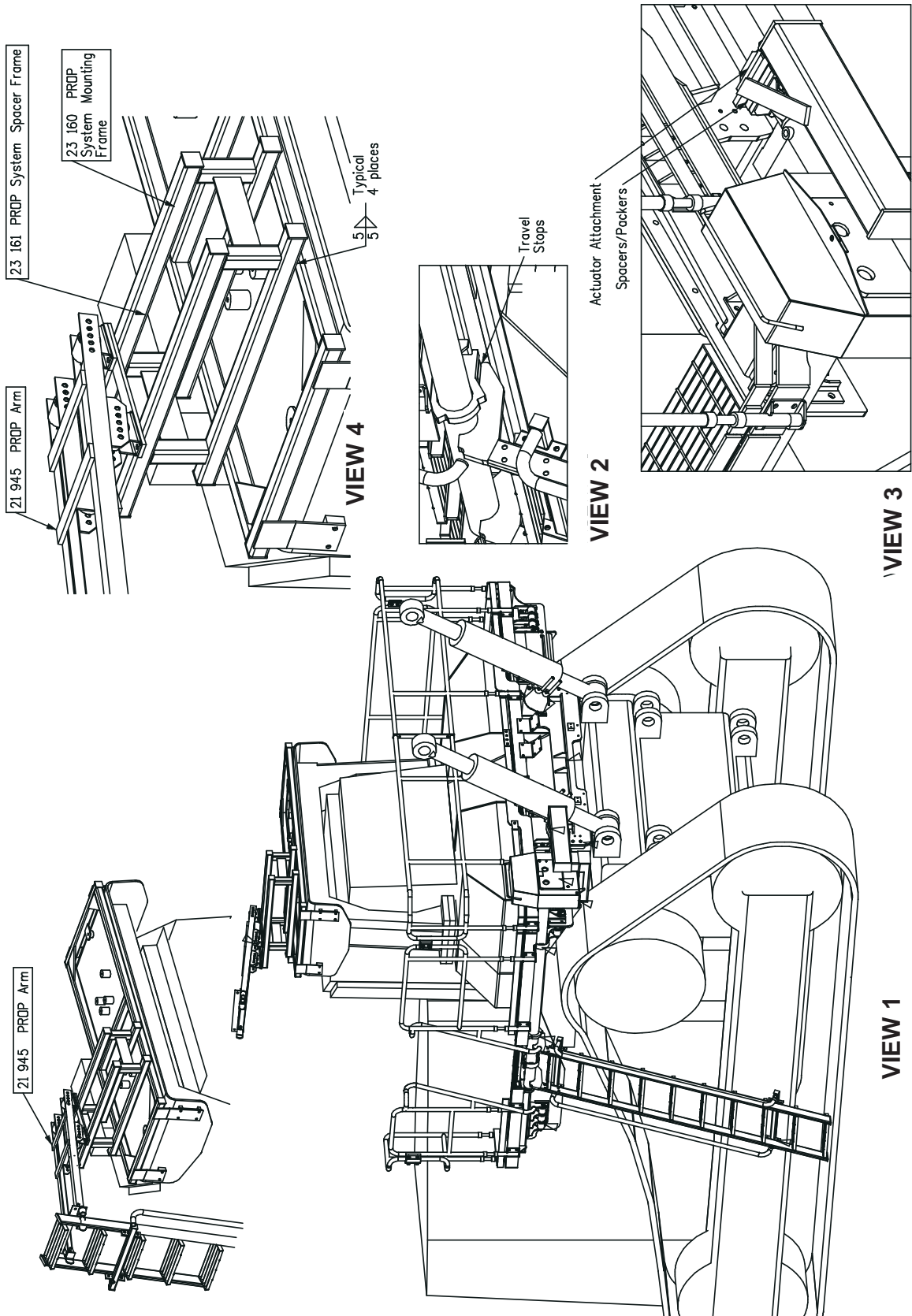
1. Lower ladder as far as it will go. Ensure its' lowered travel is limited by the stops at the top of the ladder (see View 2) and not by the drive mechanism. If the drive mechanism is limiting down travel, re-arrange spacers/packers behind the actuator attachment so the ladder stops limit the travel - see View 3.
2. Fit the Prop System Mounting Frame to the ROPS over the cabin per View 1. Use existing bolting blocks at the back + Bolting Pad 23 160 14 at the front. Also weld ROPS Roof Button 23 160 16 to the ROPS roof, 3 off. Spacers 23 160 13 might be required under the rear cleats.
3. Raise the ladder as far as it will go. Per View 1, bolt the PROP Arm 21 945 to the Spacer Frame 23 161 using the middle of five holes available for the isolator bush bolts. Locate the assembled PROP Arm and Spacer Frame so as to engage the ladder centrally and support it in the middle of its' range of free movement (slap). Weld the blocks in place, per View 4

# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 1 Installation Instruction Drawings - 23 182





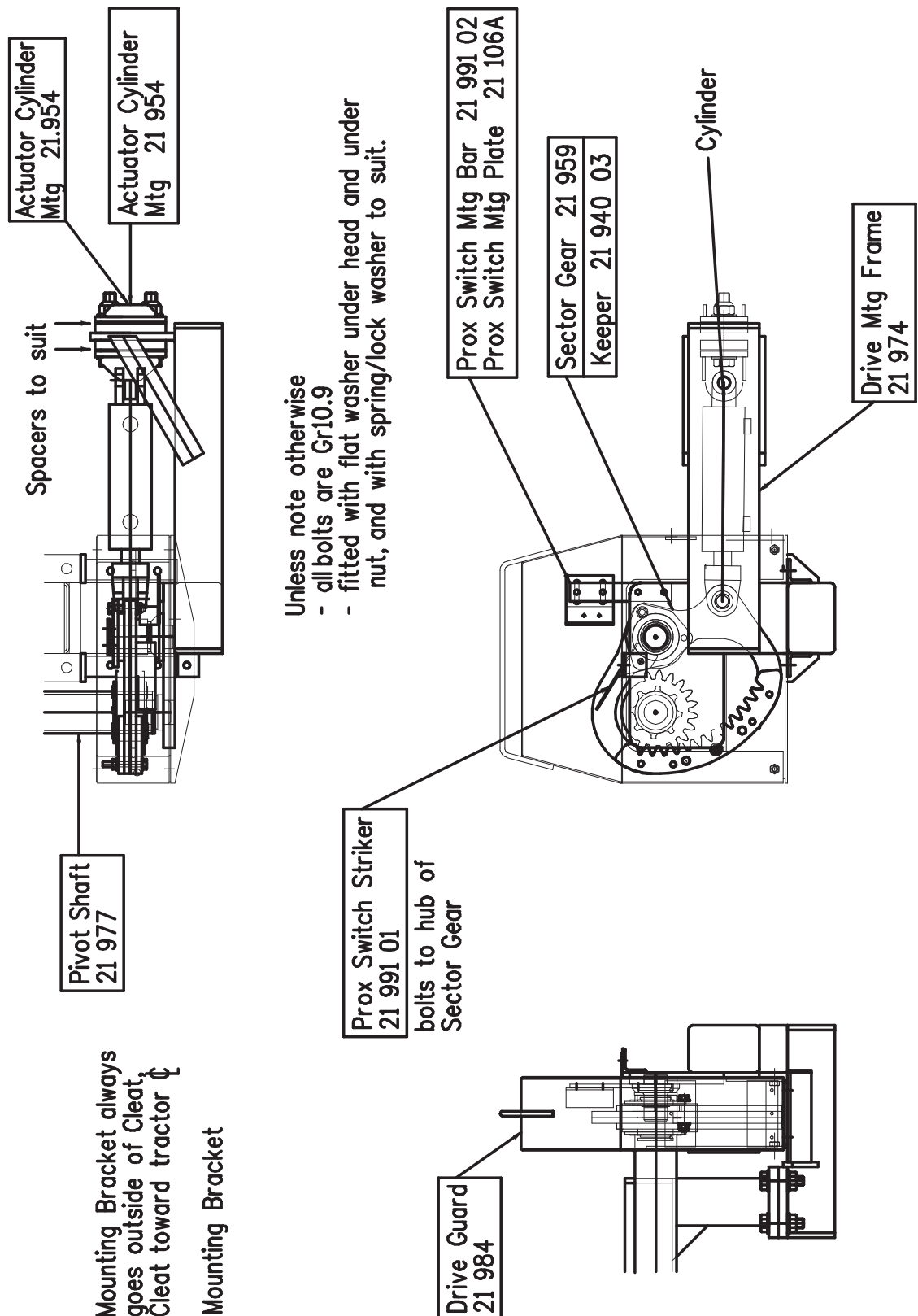
# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 1 Installation Instruction Drawings - 22 520

#### Drive Arrangement





# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 1 Installation and Mounting Instructions

#### 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).

# FOLDING LADDER

## Caterpillar D11T 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**

#### **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 LADDER

## Caterpillar D11T 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 truck 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 truck.

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].

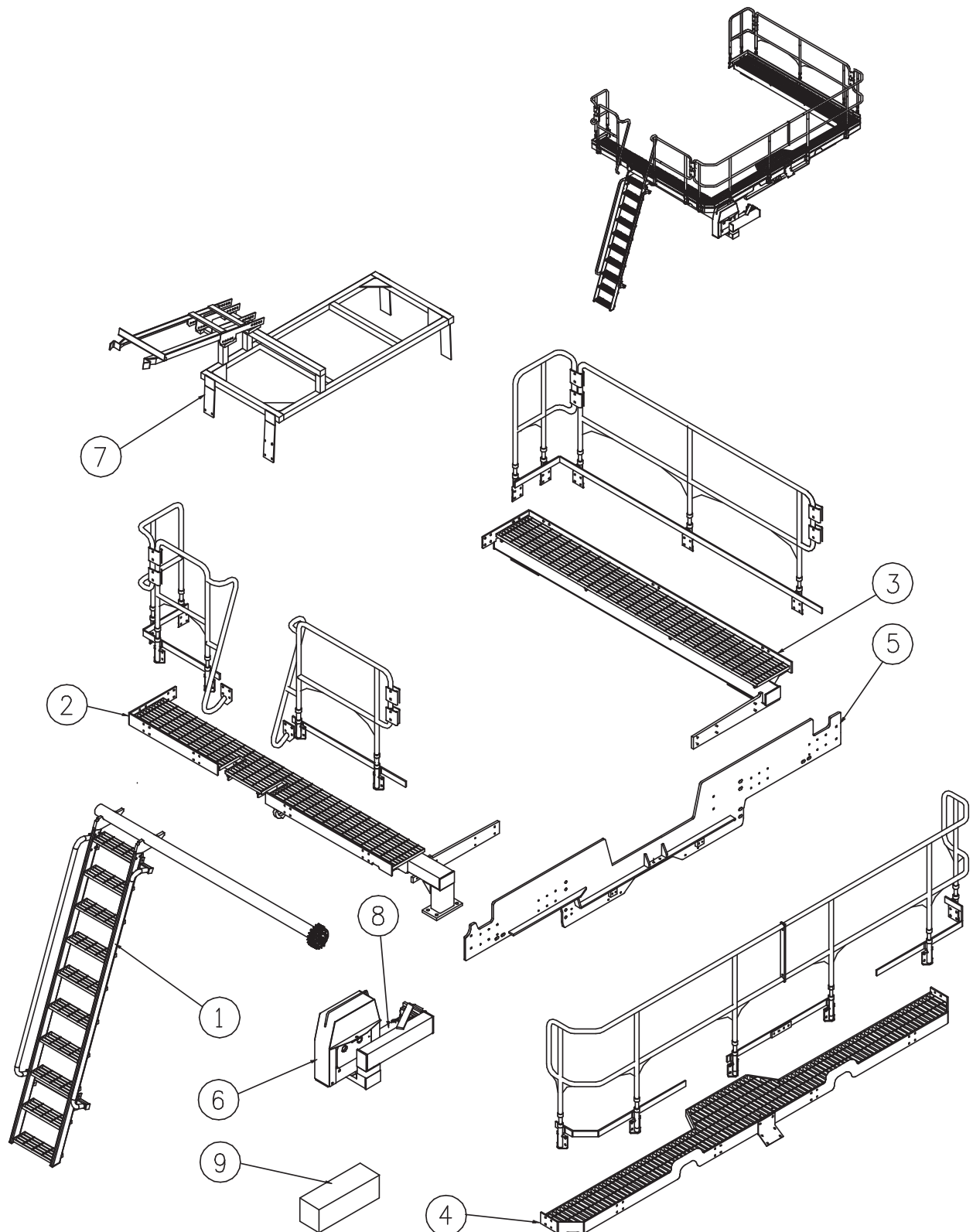
Test by raising and lowering the Power Step a couple of times and adjust again if necessary.

# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 4 Assembly Complete

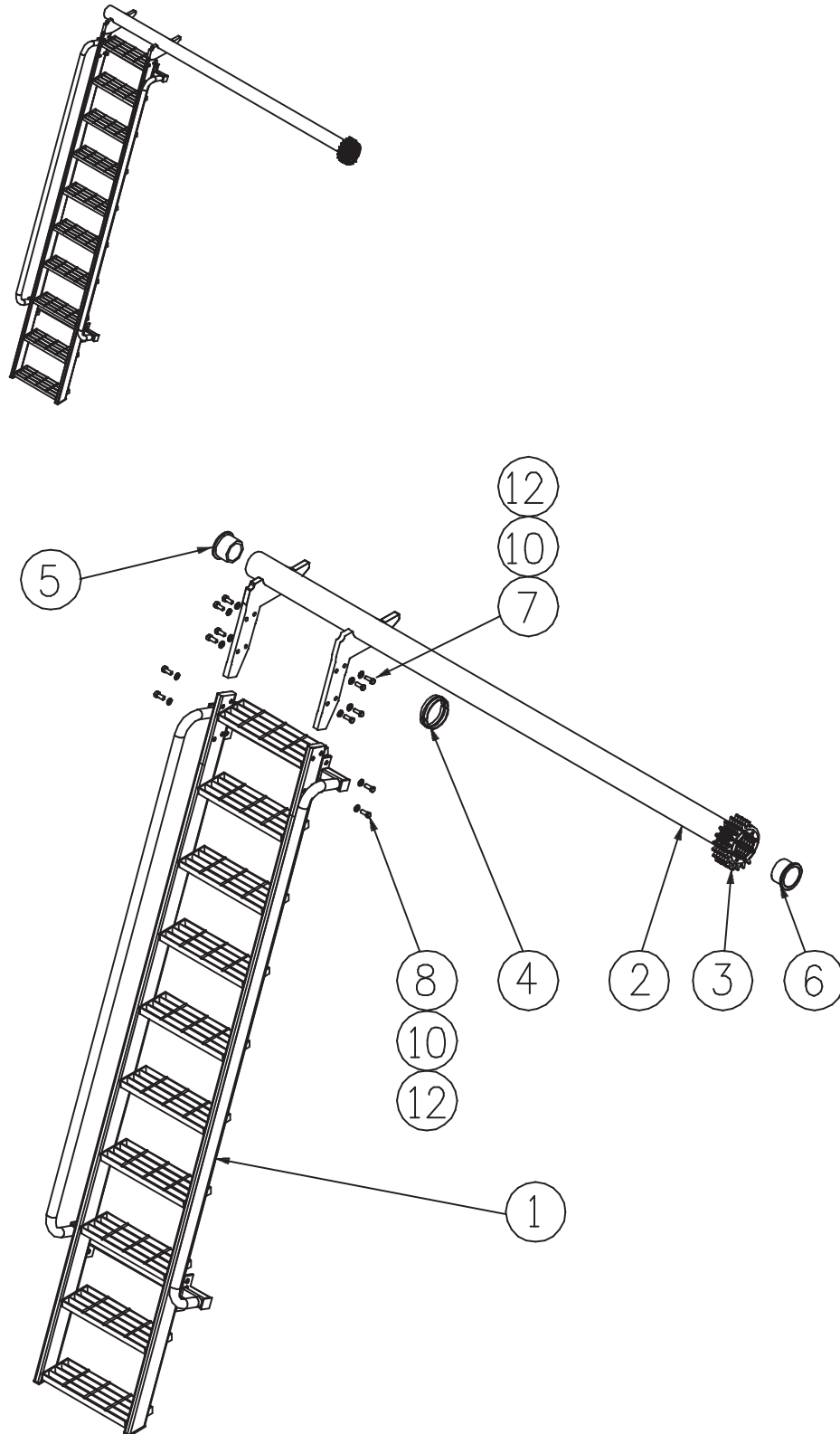


# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 4-1 Ladder Assembly



# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 4-1 Ladder Assembly

See Drawing Page 13

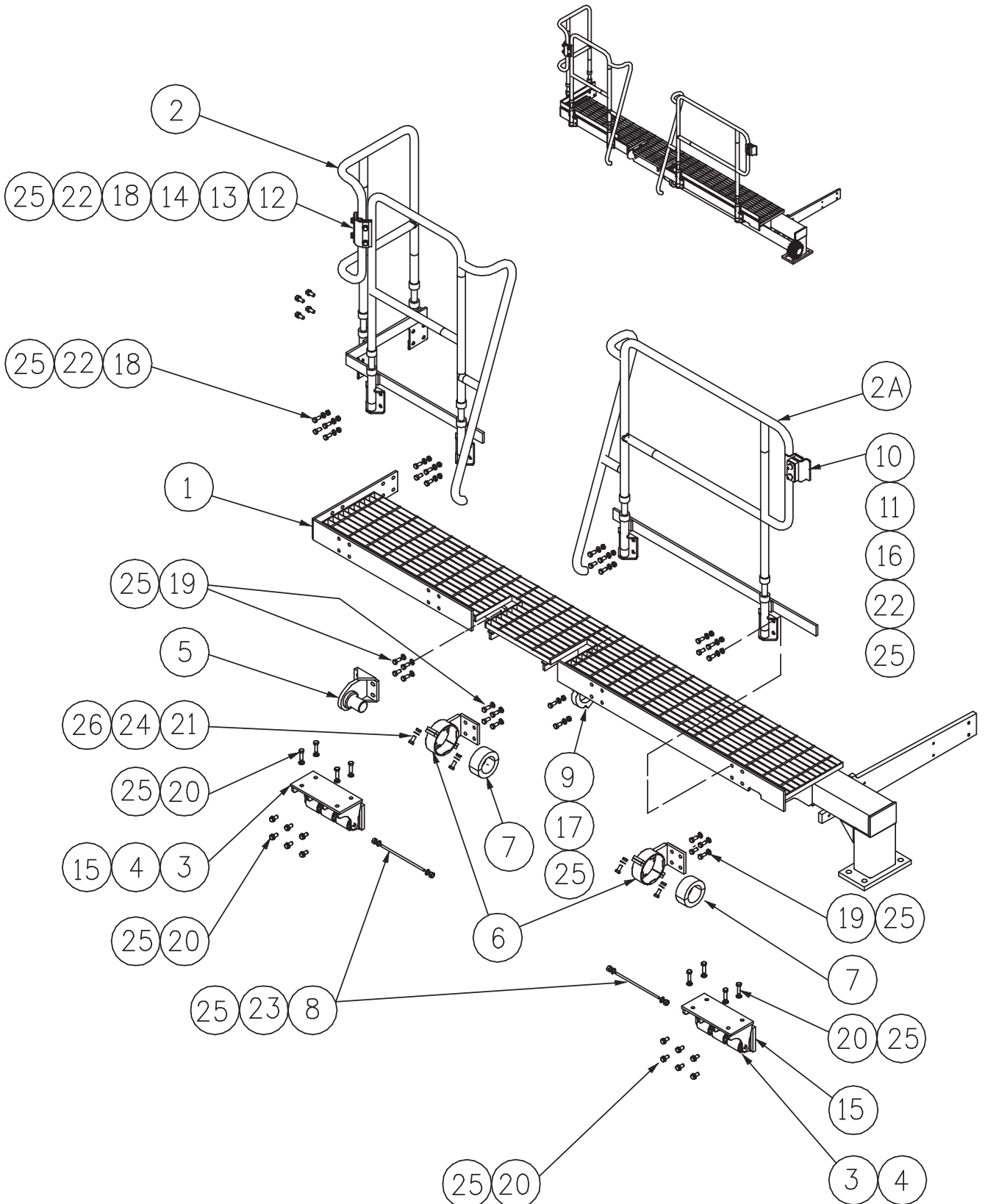
Item	Part No.	Part Name	Qty		
1	PS-21924	LADDER & HANDRAIL FABRICATION	1		
2	PS-21977	ROTATION SHAFT	1		
3	PS-21958	PINION ASSEMBLY	1		
4	PS-21926-01	LADDER SHAFT PIVOT BUSH-MIDDLE	1		
5	PS-21926-02	LADDER SHAFT PIVOT BUSH-NON DRIVE END	1		
6	PS-21926-03	LADDER SHAFT PIVOT BUSH- DRIVE END	1		
7	CPS-M12X45	BOLT-M12 x 45	8		
8	CPS-M12X30	BOLT-M12 x 30	8		
9	CPS-M12NZP	NUT-M12	8		
10	CPS-M12NZP	WASHER-M12	16		

# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 4-2 Landing Assembly LHS. PP-22786A





# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 4-2 Landing Assembly LHS. PS-22786A

See Drawing Page 15

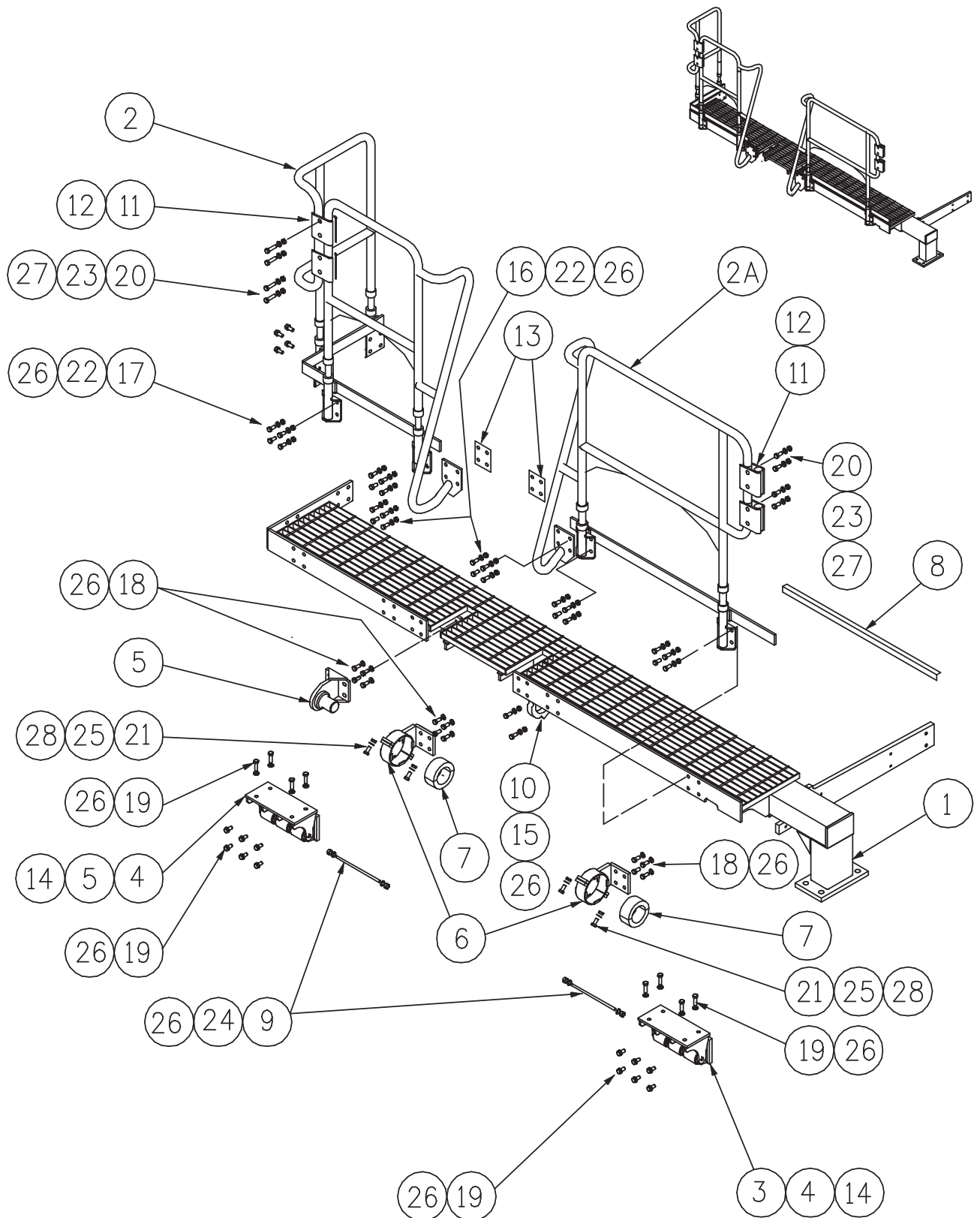
Item	Part No.	Part Name	Qty		
1	PS-22786	LHS LANDING	1		
2	PS-22787-A	HANDRAIL- FRONT-LHS	1		
2A	PS-22787-B	HANDRAIL- REAR-LHS	1		
3	PS-21932	ISOLATOR PIN BRACKETS	2		
4	PS-21930A	ISOLATOR MOUNTING ASSY.	6		
5	PS-21976	FRONT PIVOT PIN BRACKET	1		
6	PS-21941	ANTI VIBRATION BEARING	2		
7	PS-21941-06	RUBBER BUSH	2		
8	PS-21933	ISOLATOR BUSH PIN	2		
9	PS-21925	MIDDLE BEARING MOUNTING	1		
10	PS-22005-01	ANGLE BRACKET	2		
11	PS-22005-03/02	ISOLATOR RUBBER CLAMP	2		
12	PS-23173-04	MOUNTING BAR	2		
13	PS-22789-02	CLAMP BAR	2		
14	PS-22789-03	ISOLATOR ELEMENT	1		
15	PS-23173-04	SIDE MOUNTING PAD	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	28		
19	CPS-M12X30ZP	BOLT-M12 x 30	12		
20	CPS-M12X25ZP	BOLT-M12 x 25	20		
21	CPS-M8X35ZP	BOLT-M8 x 35	8		
22	CPS-M12NZP	NUT-M12	30		
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		

# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 4-2 Landing Assembly LHS. PP-22786-NG Updated Handrails



# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 4-2 Landing Assembly LHS. PP-22786-NG Updated Handrails

See Drawing Page 17

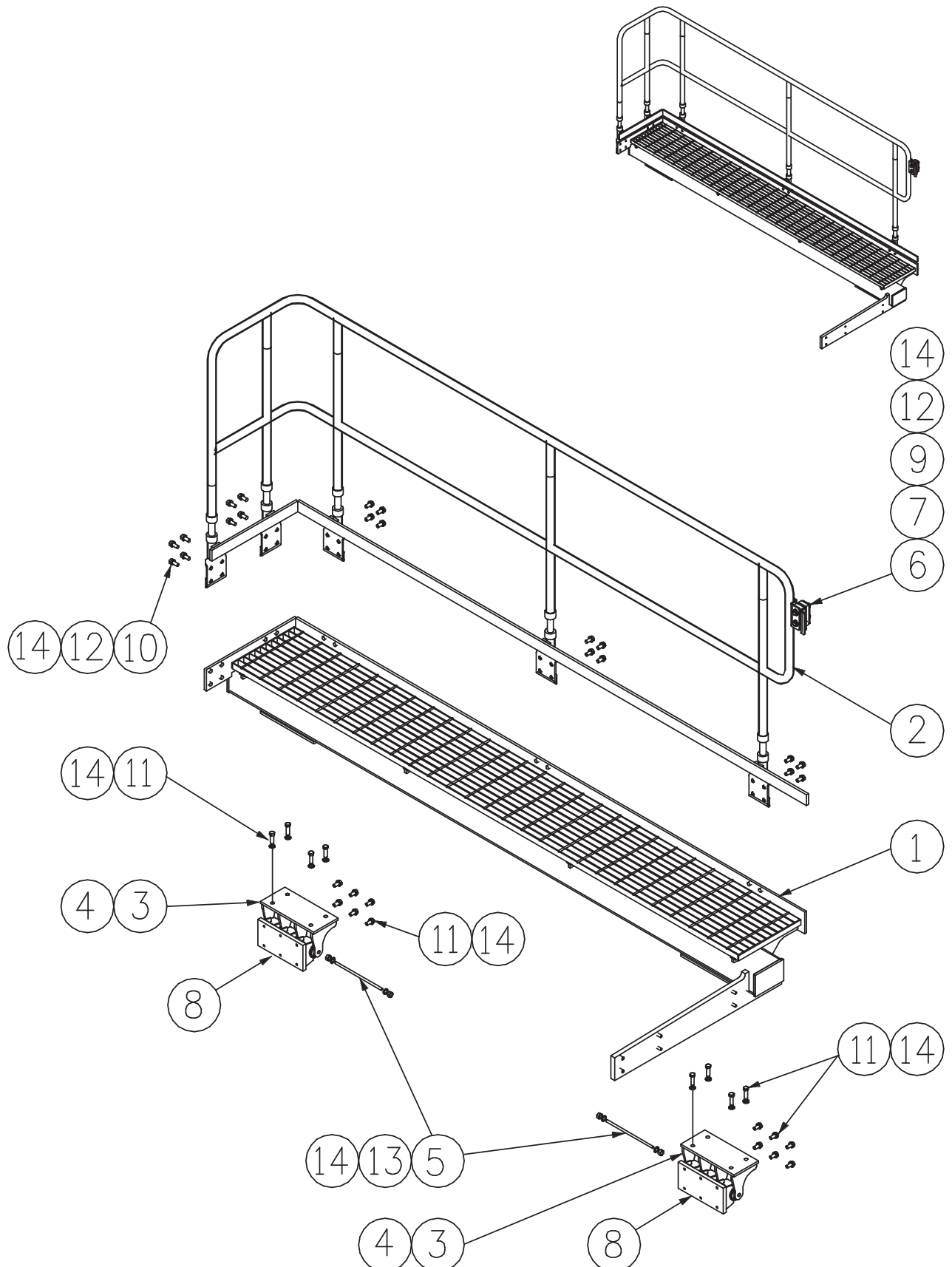
Item	Part No.	Part Name	Qty		
1	PS-22786	LHS LANDING	1		
2	PS-22787-A-NG	HANDRAIL- FRONT-LHS-NEW GENERATION	1		
2A	PS-22787-B-NG	HANDRAIL- REAR-LHS-NEW GENERATION	1		
3	PS-21932	ISOLATOR PIN BRACKETS	2		
4	PS-21930A	ISOLATOR MOUNTING ASSY.	6		
5	PS-21976	FRONT PIVOT PIN BRACKET	1		
6	PS-21941	ANTI VIBRATION BEARING	2		
7	PS-21941-06	RUBBER BUSH	2		
8	PS-23176	FLOORING EXTENSION	1		
9	PS-21933	ISOLATOR BUSH PIN	2		
10	PS-21925	MIDDLE BEARING MOUNTING	1		
11	PS-HRI-C11	RUBBER HOSE Pirtek IRR-032 x 120	8		
12	PS-HRI-A06	HANDRAIL POST - DOUBLE CLAMP ASSY.	4		
13	PS-HRI-C03	HANDRAIL RUBBER BLOCK	2		
14	PS-23173-04	SIDE MOUNTING PLATE	2		
15	CPS-M12X65ZP	BOLT-SOCKET HEAD-M12 x 65	2		
16	CPS-M12X45ZP	BOLT-M12 x 45	8		
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-M10X75ZP	BOLT-M10 x 75	8		
21	CPS-M8X35ZP	BOLT-M8 x 35	8		
22	CPS-M12NZP	NUT-M12	30		
23	CPS-M10NZP	NUT-M10	8		
24	CPS-1/2"NN	NUT-NYLOC-1/2"UNC	4		
25	CPS-M8NN	NUT-NYLOC-M8	8		
26	CPS-M12WH	WASHER-HARDENED-M12	96		
27	CPS-M10WH	WASHER-HARDENED-M10	8		
28	CPS-M8WH	WASHER-HARDENED-M8	16		

# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 4-3 Landing Assembly RHS. 22784A



# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 4-3 Landing Assembly RHS. 22784A

See Drawing Page 19

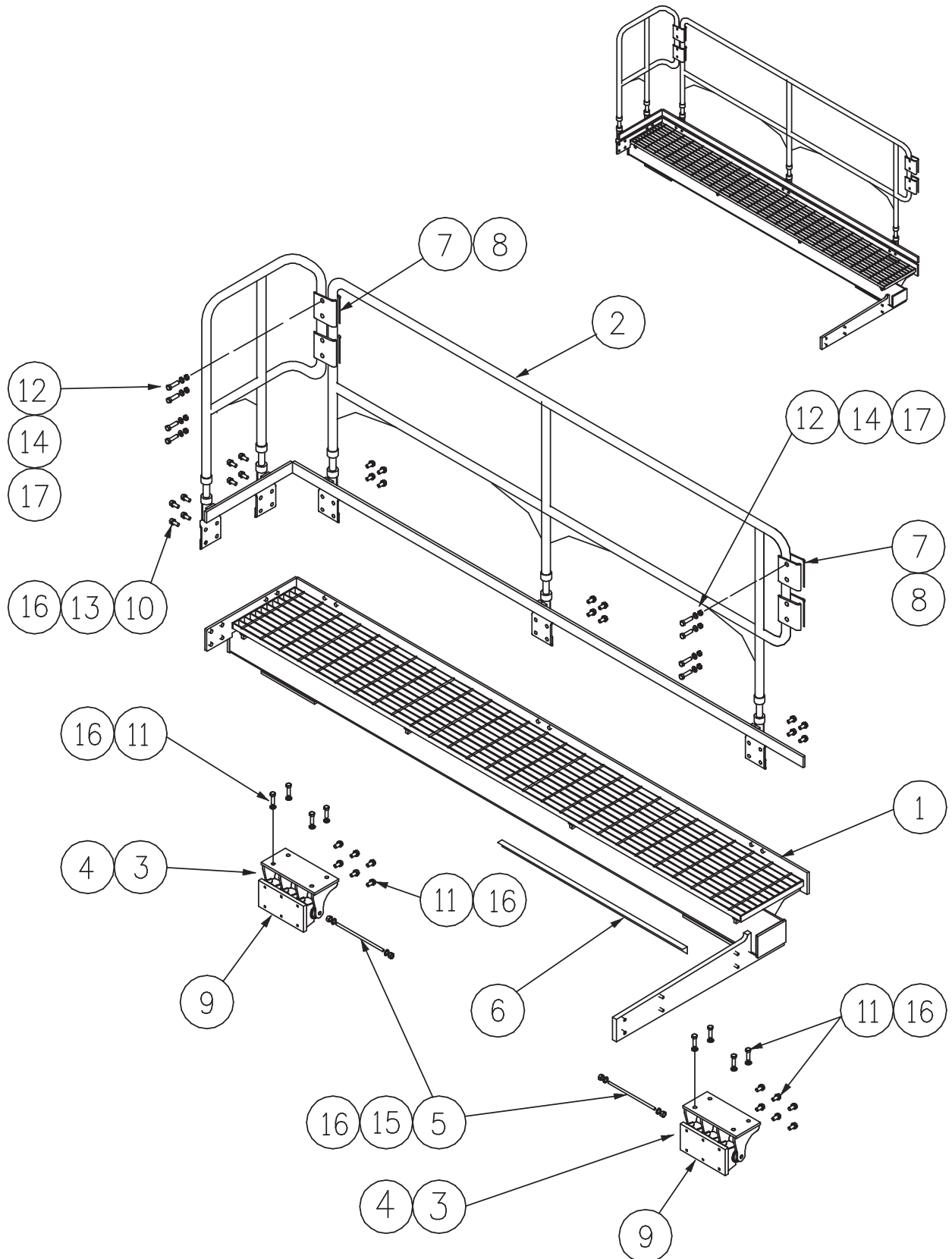
Item	Part No.	Part Name	Qty		
1	PS-22784	LANDING ASSEMBLY RHS	1		
2	PS-22788	HANDRAIL RHS	1		
3	PS-21932	ISOLATOR PIN BRACKET	2		
4	PS-21930	ISOLATOR MOUNTINGS	6		
5	PS-21933	ISOLATOR BUSH PIN	2		
6	PS-22005-01	ANGLE BRACKET	2		
7	PS-22005-03	ISOLATOR RUBBER	2		
8	PS-23173-04	SIDE MOUNTING PAD	2		
9	CPS-M12X75ZP	BOLT-M12 x 75	2		
10	CPS-M12X35ZP	BOLT-M12 x 35	20		
11	CPS-M12X25ZP	BOLT-M12 x 25	20		
12	CPS-M12NZP	NUT-M12	22		
13	CPS-1/2"NN	NUT- NYLOC-1/2" UNC	4		
14	CPS-M12WH	WASHER-HARDENED-M12	68		

# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 4-3 Landing Assembly RHS 22784A-NG Updated Handrails



# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 4-3 Landing Assembly RHS. 22784A-NG **Updated Handrails**

See Drawing Page 21

Item	Part No.	Part Name	Qty		
1	PS-22784	LANDING ASSEMBLY RHS	1		
2	PS-22788-NG	HANDRAIL RHS- NEW GENERATION	1		
3	PS-21932	ISOLATOR PIN BRACKET	2		
4	PS-21930	ISOLATOR MOUNTINGS	6		
5	PS-21933	ISOLATOR BUSH PIN	2		
6	PS-23176	FLOORING EXTENSION	1		
7	PS-HRI-A06	HANDRAIL POST - DOUBLE CLAMP ASSY.	4		
8	PS-HRI-C11	RUBBER HOSE Pirtek IRR-032 x 120	8		
9	PS-23173-04	SIDE MOUNTING PLATE	2		
10	CPS-M12X35ZP	BOLT-M12 x 35	24		
11	CPS-M12X25ZP	BOLT-M12 x 25	20		
12	CPS-M10X75ZP	BOLT-M10 x 75	8		
13	CPS-M12NZP	NUT-M12	26		
14	CPS-M10NZP	NUT-M10	8		
15	CPS-1/2"NN	NUT- NYLOC-1/2" UNC	4		
16	CPS-M12WH	WASHER-HARDENED-M12	76		
17	CPS-M10WH	WASHER-HARDENED-M10	8		

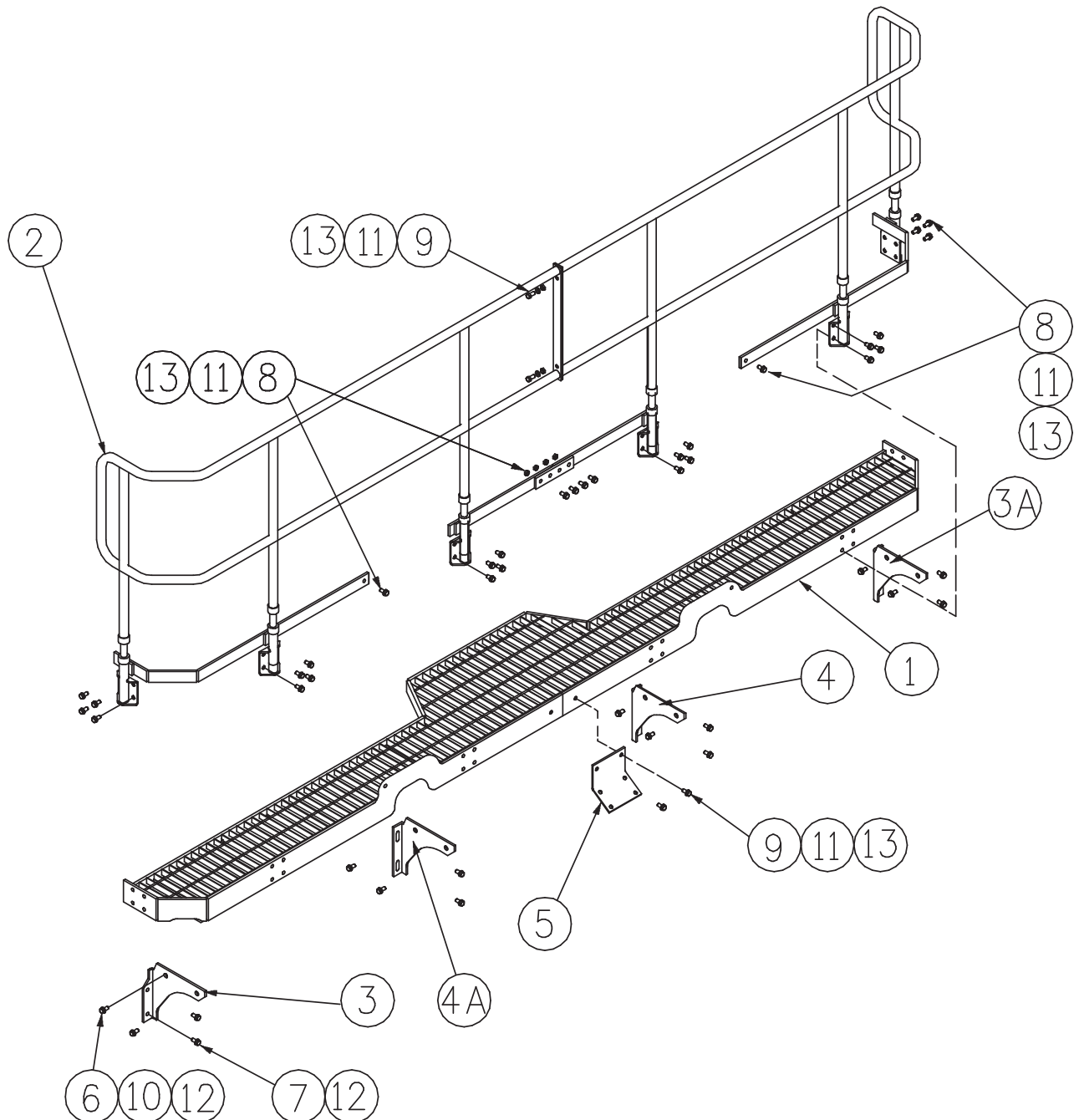


# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 4-4 Landing Assembly Rear 23172A



# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 4-4 Landing Assembly Rear 23172A

See Drawing Page 23

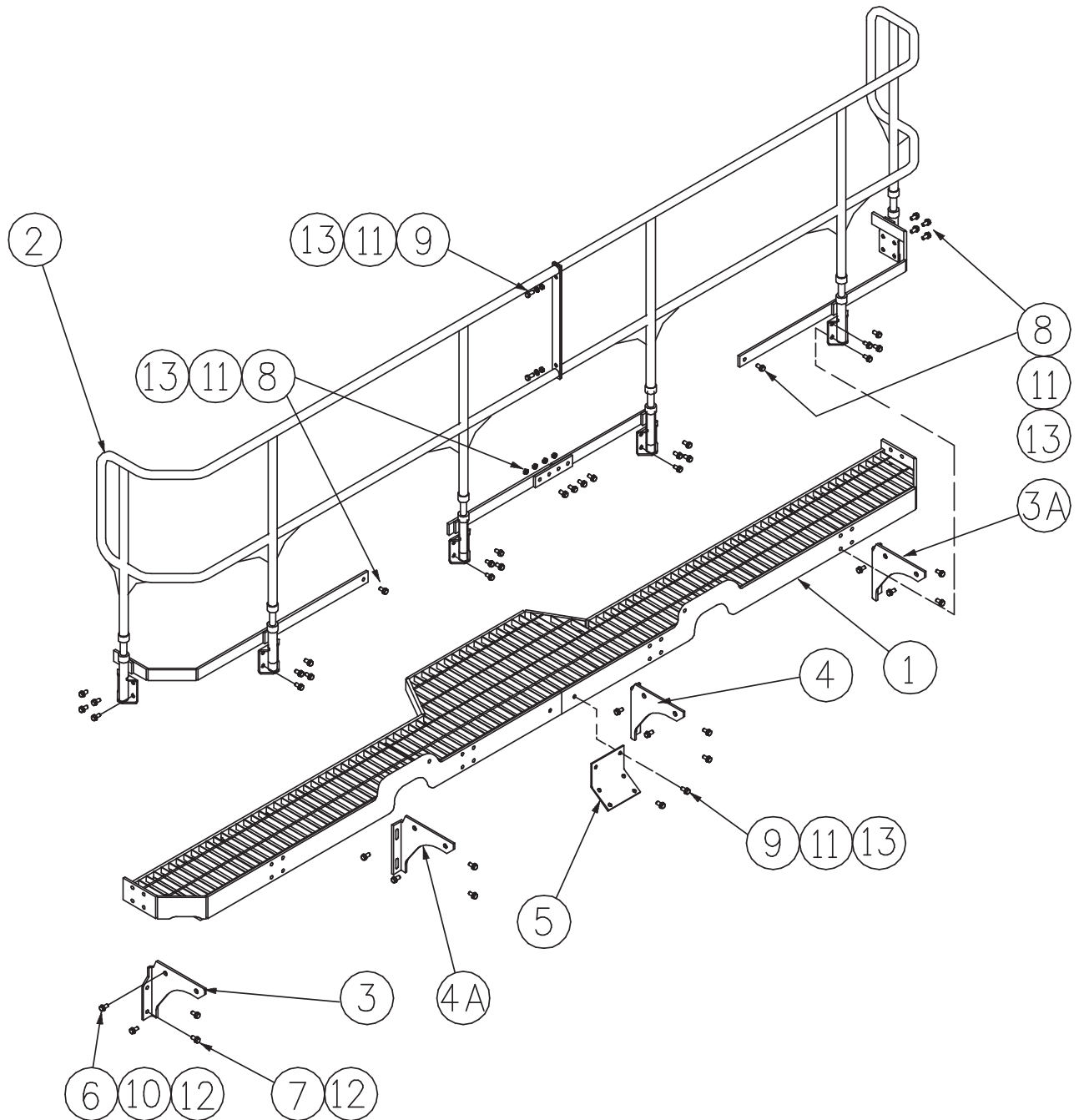
Item	Part No.	Part Name	Qty		
1	PS-23172	LANDING ASSEMBLY-REAR	1		
2	PS-23175	HANDRAILS- REAR	1		
3	PS-23174-02	REAR LANDING BRACKETS - OUTER-LHS	1		
3A	PS-23174-04	REAR LANDING BRACKETS - OUTER-RHS	1		
4	PS-23174-01	REAR LANDING BRACKET - INNER-RHS	1		
4A	PS-23174-03	REAR LANDING BRACKET - INNER-LHS	1		
5	PS-21990	RIPPER LIGHT BRACKET	1		
6	PS-M16X50ZP	BOLT-M16 x 50	8		
7	PS-M16X30ZP	BOLT-M16 x 30	12		
8	PS-M12X35ZP	BOLT-M12 x 35	30		
9	PS-M12X30ZP	BOLT-M12 x 30	4		
10	CPS-M16NZP	NUT-M16	8		
11	CPS-M12NZP	NUT-M12	34		
12	CPS-M16WH	WASHER-HARDENED-M16	28		
13	CPS-M12WH	WASHER-HARDENED-M12	68		

# FOLDING LADDER

## Caterpillar D11T Dozer



Section 4-4 Landing Assembly Rear 23172A-NG Updated Handrails



# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 4-4 Landing Assembly Rear 23172A-NG

Updated Handrails

See Drawing Page 25

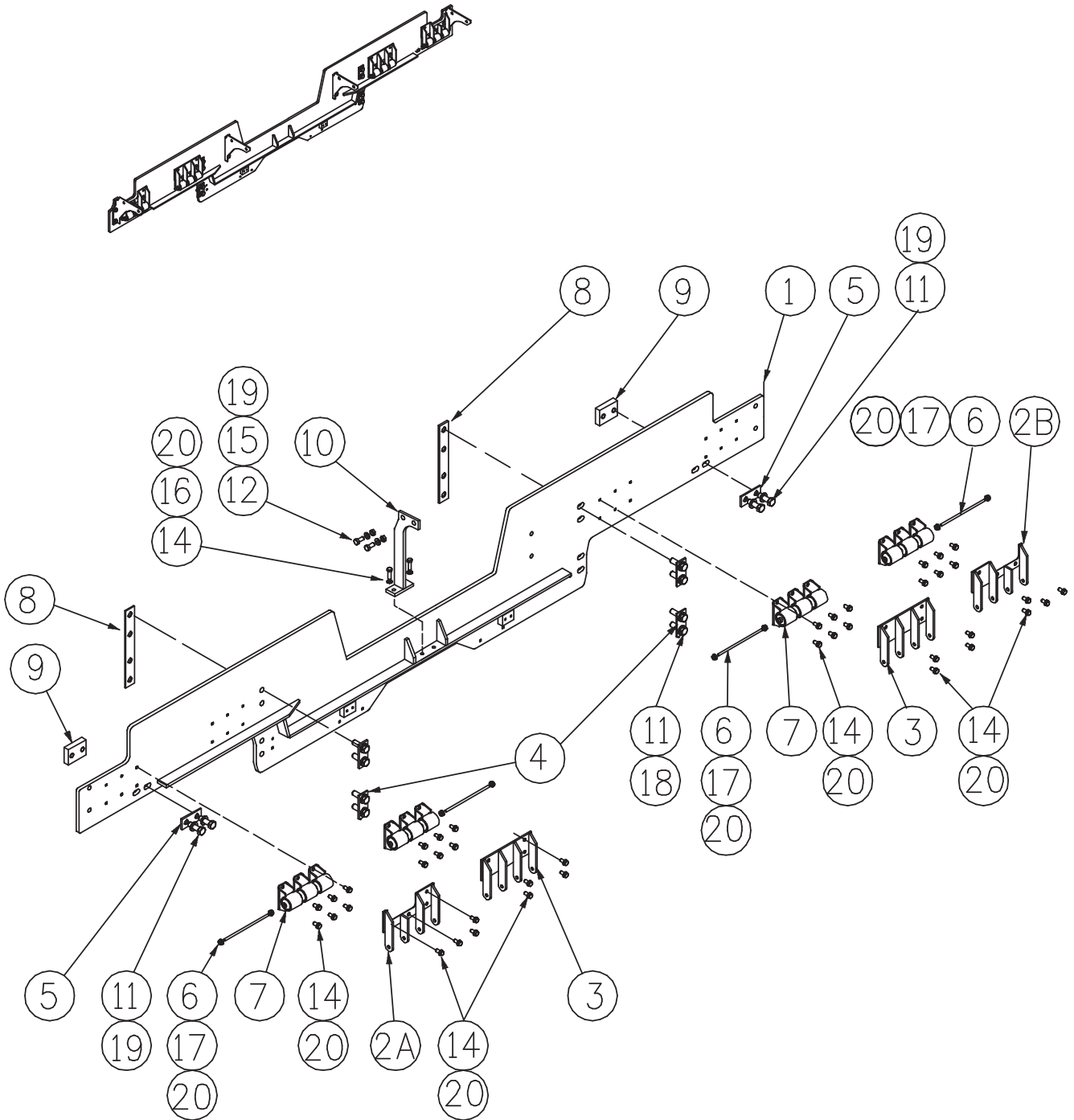
Item	Part No.	Part Name	Qty		
1	PS-23172	LANDING ASSEMBLY - REAR	1		
2	PS-23175-NG	HANDRAILS-REAR - NEW GENERATION	1		
3	PS-23174-02	REAR LANDING BRACKETS - OUTER-LHS	1		
3A	PS-23174-04	REAR LANDING BRACKETS - OUTER-RHS	1		
4	PS-23174-01	REAR LANDING BRACKET - INNER-RHS	1		
4A	PS-23174-03	REAR LANDING BRACKET - INNER-LHS	1		
5	PS-21990	RIPPER LIGHT BRACKET	1		
6	PS-M16X50ZP	BOLT-M16 x 50	8		
7	PS-M16X30ZP	BOLT-M16 x 30	12		
8	PS-M12X35ZP	BOLT-M12 x 35	30		
9	PS-M12X30ZP	BOLT-M12 x 30	4		
10	CPS-M16NZP	NUT-M16	8		
11	CPS-M12NZP	NUT-M12	34		
12	CPS-M16WH	WASHER-HARDENED-M16	28		
13	CPS-M12WH	WASHER-HARDENED-M12	68		

## FOLDING LADDER

### Caterpillar D11T Dozer



## Section 4-5 Spreader Assembly PS-23170A



# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 4-5 Spreader Assembly 23170A

See Drawing Page 27

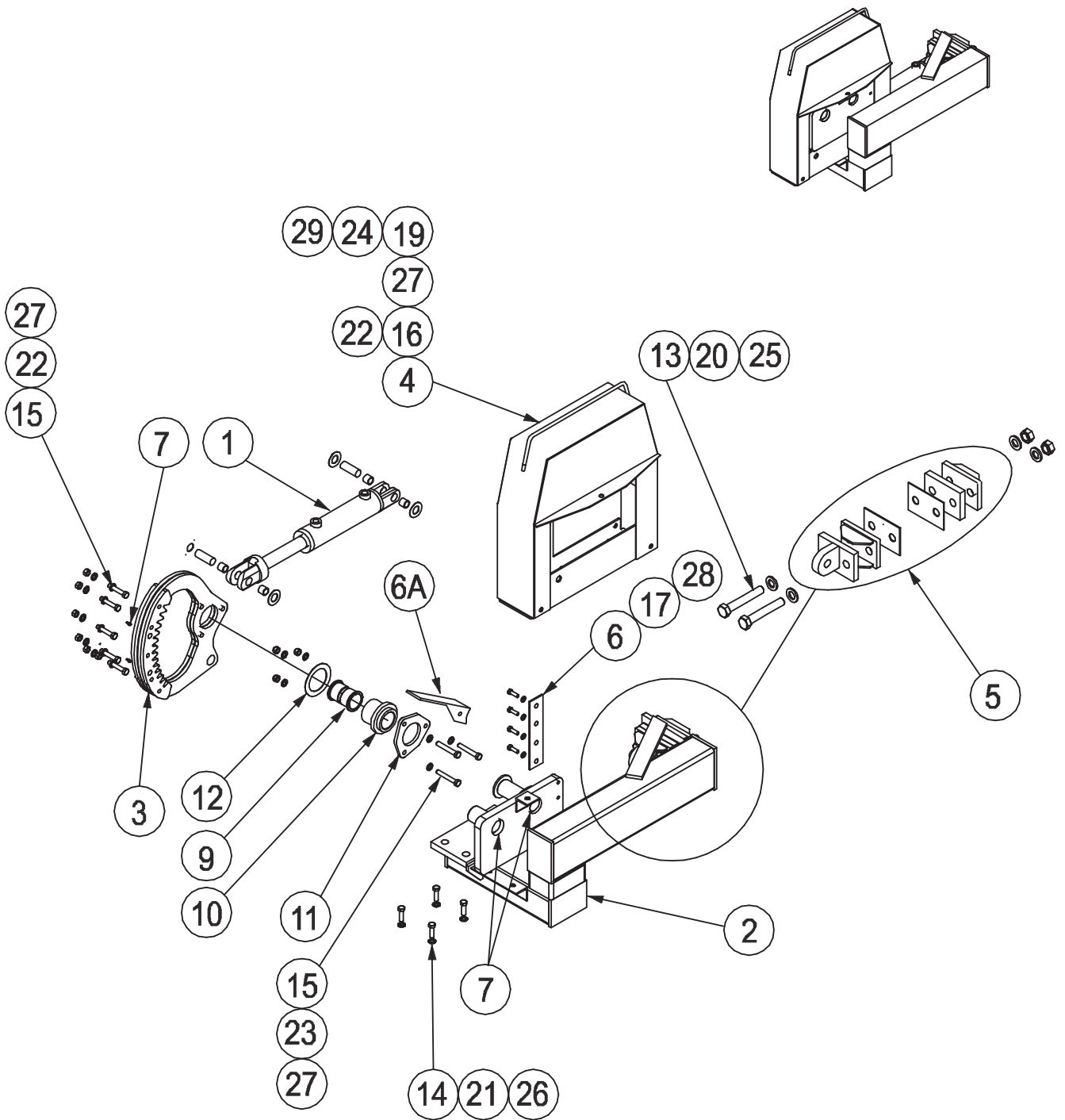
Item	Part No.	Part Name	Qty		
1	PS-23170	SPREADER	1		
2A	PS-21931 98	ISOLATOR PIN BRACKET-OUTER LEFT	1		
2B	PS-21931-97	ISOLATOR PIN BRACKET-OUTER RIGHT	1		
3	PS-21931-99	ISOLATOR PIN BRACKET-INNER	2		
4	PS-23173-05	WASHER PLATES	4		
5	PS-23173-06	WASHER PLATES	2		
6	PS-21933	ISOLATOR BUSH PIN	4		
7	PS-21930A	ISOLATOR MOUNTING ASSY.	12		
8	PS-23173-01	REAR INNER MOUNT BLOCKS	2		
9	PS-23173-03	REAR OUTER MOUNT BLOCKS	1		
10	PS-21929	REAR LANDING POST	2		
11	CPS-M20X60ZP	BOLT-M20 x 60	12		
12	CPS-M16X50ZP	BOLT-M16 x 50	2		
13	CPS-M12X40ZP	BOLT-M12 x 40	2		
14	CPS-M12X25ZP	BOLT-M12 x 25	40		
15	CPS-M16NZP	NUT-M16	2		
16	CPS-M12NZP	NUT-M12	2		
17	CPS-1/2"NN	NUT-NYLOC-1/2" UNC	8		
18	CPS-M20WH	WASHER-HARDENED-M20	12		
19	CPS-M16WH	WASHER-HARDENED-M16	4		
20	CPS-M12WH	WASHER-HARDENED-M12	48		

## FOLDING LADDER

### Caterpillar D11T Dozer



## Section 4-6 Drive Unit Assembly





# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 4-6 Drive Unit Assembly

See Drawing Page 29

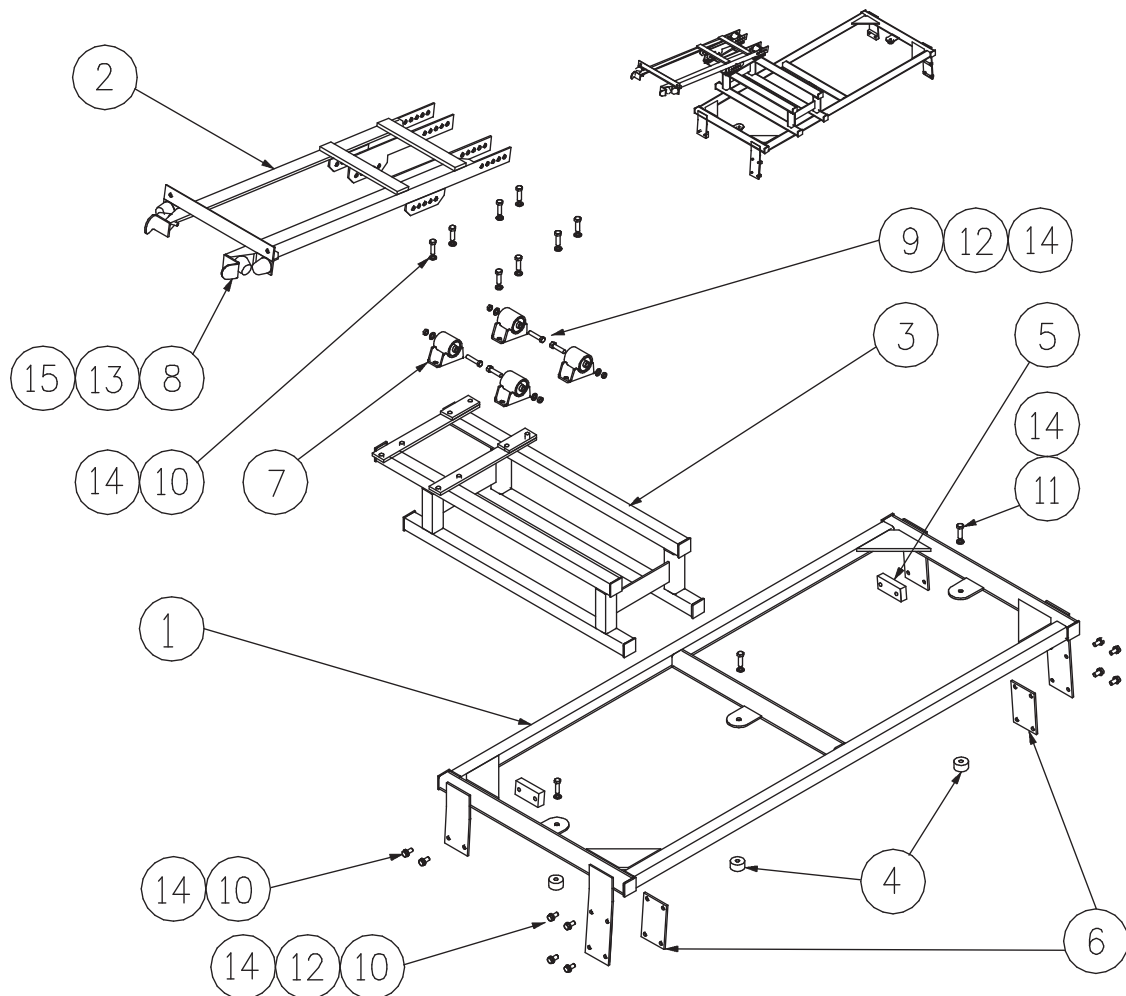
Item	Part No.	Part Name	Qty		
1	PS-63014	HYDRAULIC CYLINDER (Refer Page 22)	1		
2	PS-21974	DRIVE MOUNTING FRAME	1		
3	PS-21959	SECTOR GEAR	1		
4	PS-21984	DRIVE GUARD	1		
5	PS-21954	ACTUATOR CYL. MOUNTING ASSEMBLY	1		
6	PS-21991-02	MOUNTING BAR-PROXIMITY SWITCH	1		
6A	PS-21991-01	STRIKER	1		
7	PS-61006-2	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 D11T Dozer



### Section 4-7 PROP Assembly 23160A



Item	Part No.	Part Name	Qty		
1	PS-23160	PROP MOUNTING FRAME	1		
2	PS-21945	PROP	1		
3	PS-23161	PROP SPACER FRAME	1		
4	PS-23160-16	ROOF BUTTON	2		
5	PS-23160-14	BOLTING PAD	2		
6	PS-23160-13	SPACER	2		
7	PS-21930A	ISOLATOR MOUNTING ASSY.	4		
8	PS-40003	BUFFER	4		
9	CPS-M12x120ZP	BOLT-M12 x 120	4		
10	CPS-M12X35ZP	BOLT-M12 x 35	16		
11	CPS-M12X25ZP	BOLT-M12 x 25	6		
12	CPS-M12NZP	NUT-M12	20		
13	CPS-M10NZP	NUT-M10	4		
14	CPS-M12WH	WASHER-HARDENED-M12	46		
15	CPS-M10WH	WASHER-HARDENED-M10	4		

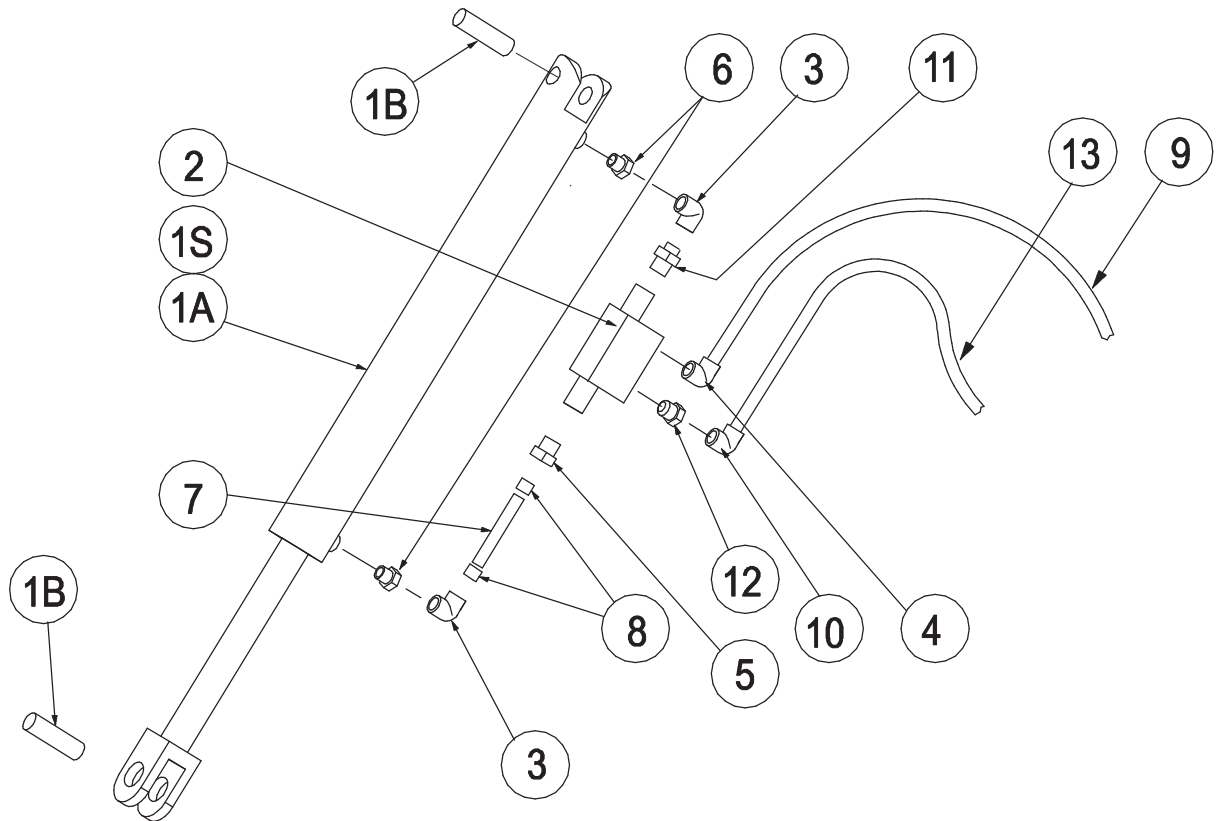
# FOLDING LADDER

## Caterpillar D11T 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	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

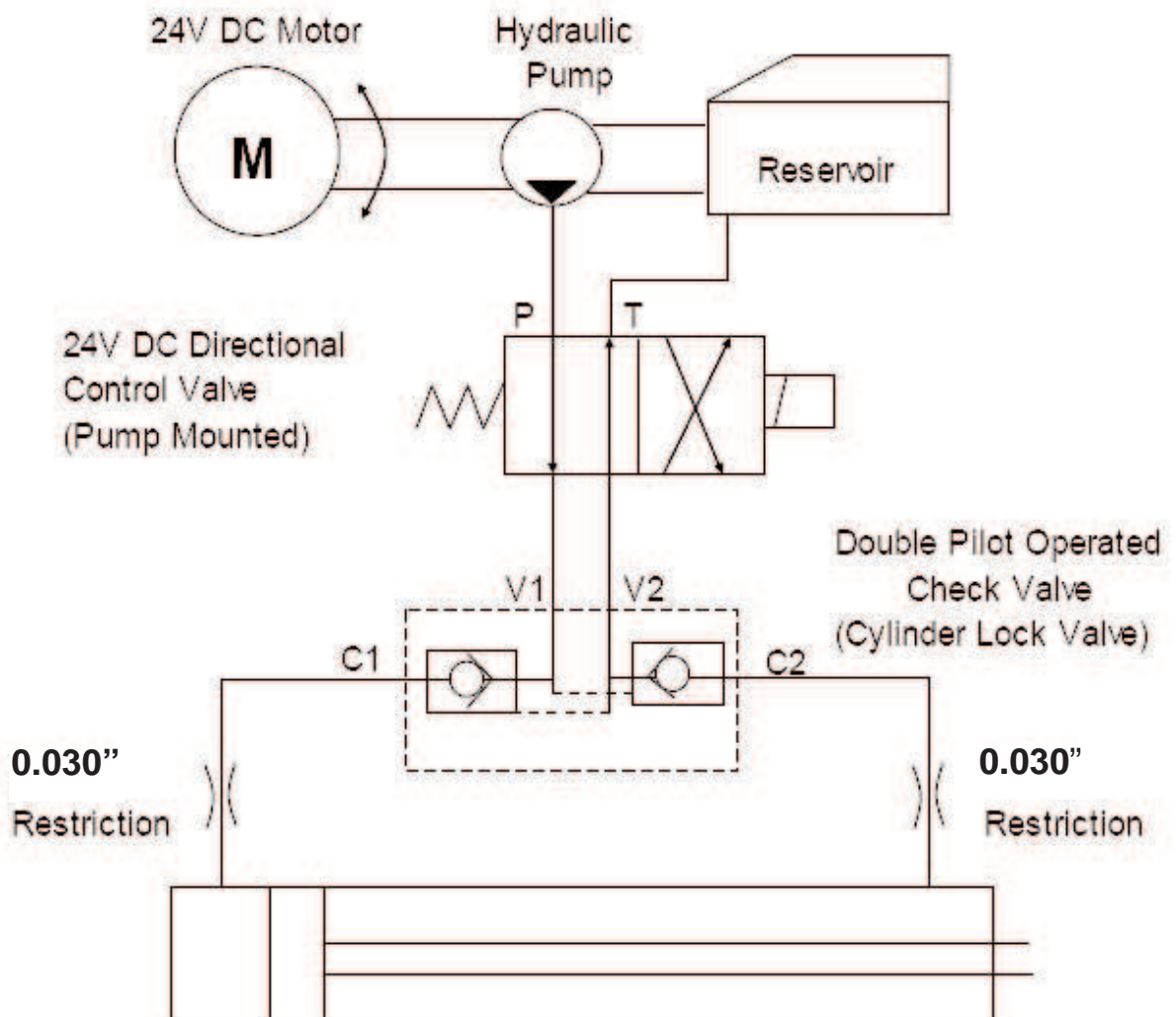
## Caterpillar D11T Dozer



### Section 4-8 Hydraulic Cylinder

See also Drawing page 32

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

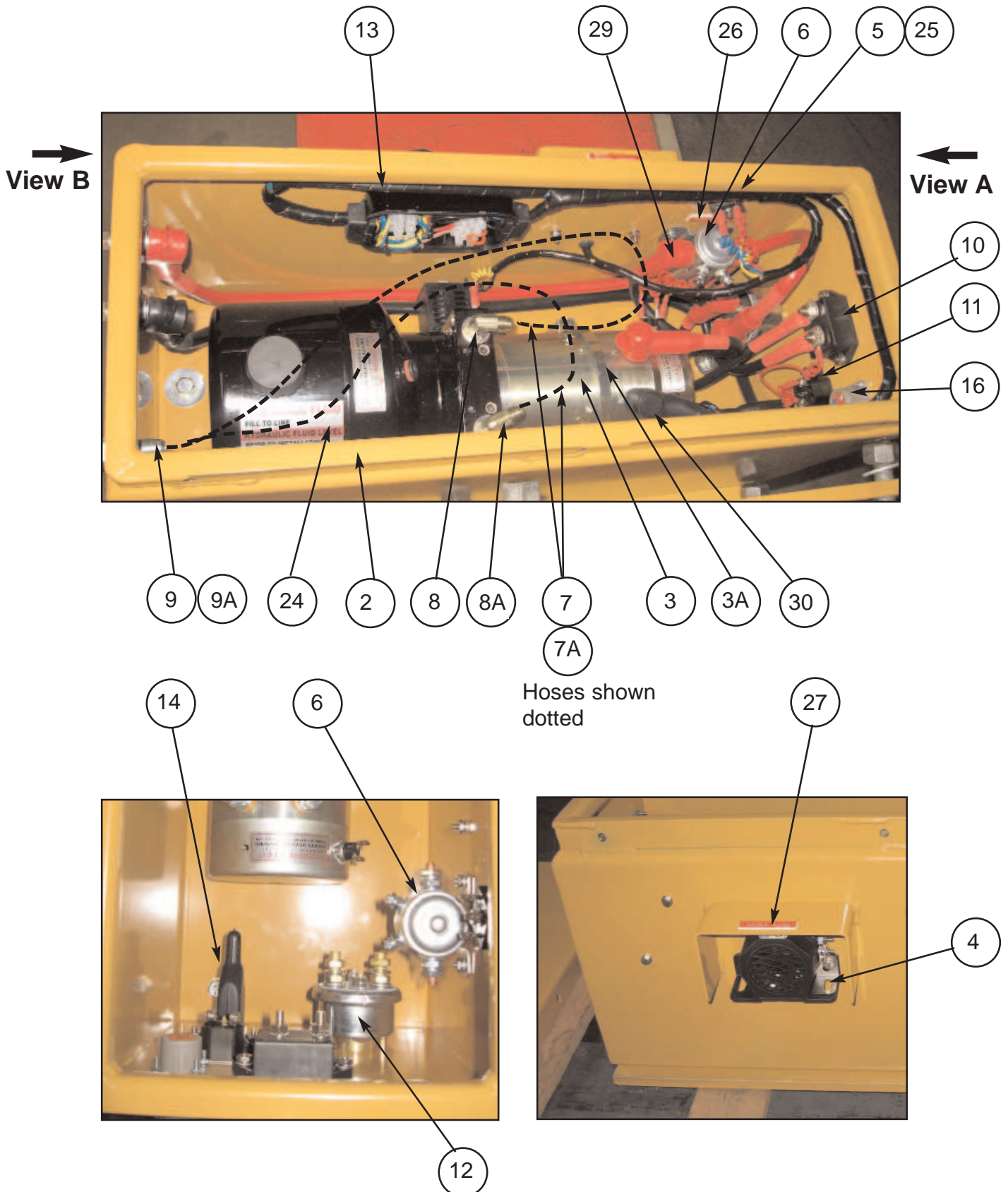


# FOLDING LADDER Caterpillar D11T Dozer



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

See Parts Lists Pg 39



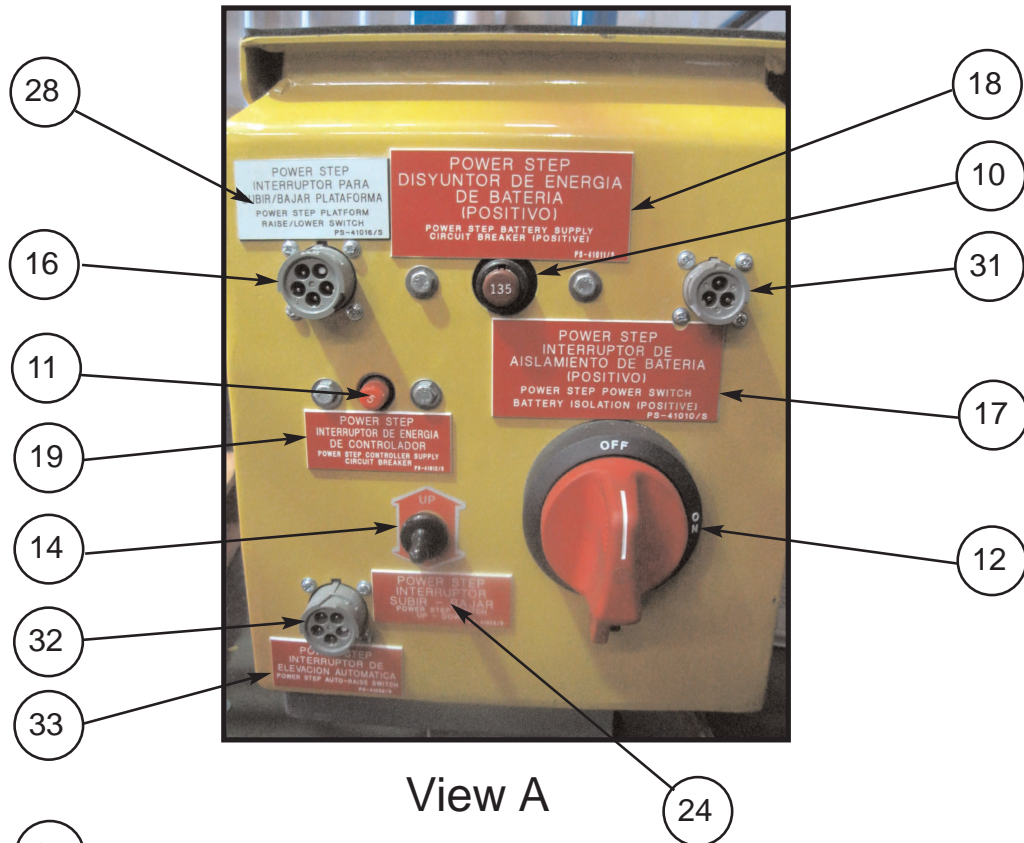


# FOLDING LADDER Caterpillar D11T Dozer

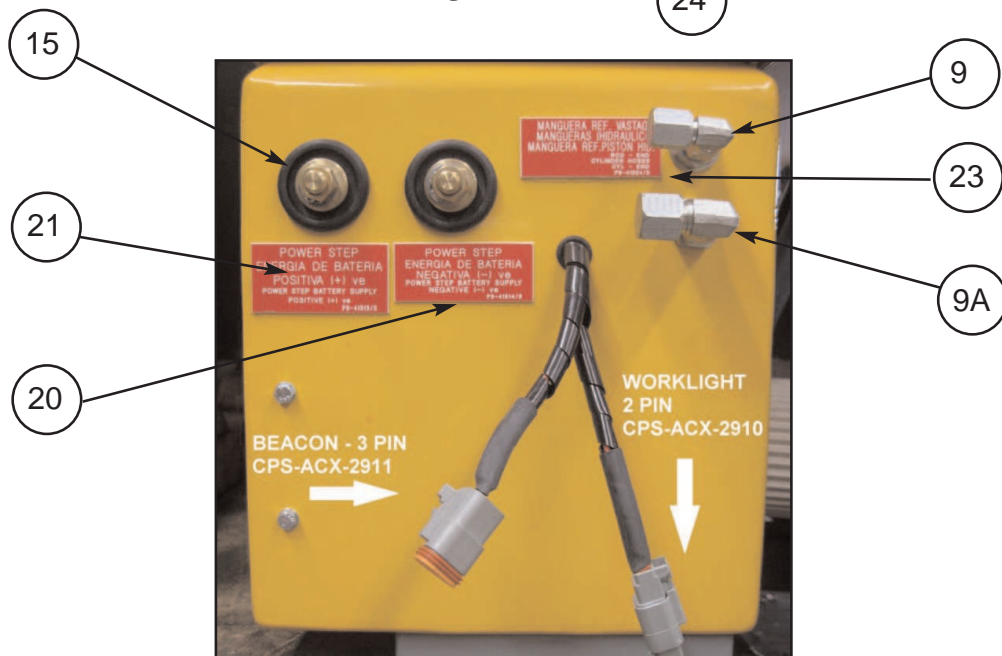


## Section 4-9 Power Pack PS-80103A-SLD

See Parts Lists Pg 39



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 LADDER

## Caterpillar D11T Dozer



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

(Includes Electrical controls & Accessories)

See Photos Page 37 & 38

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



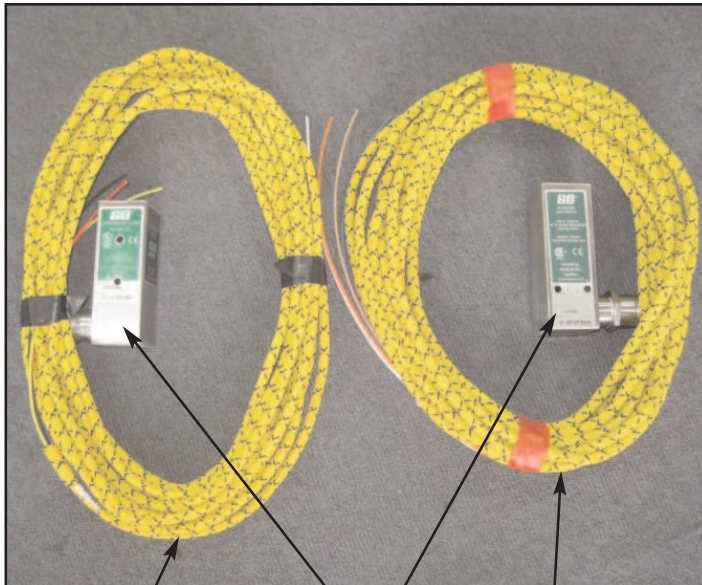
# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 4-10 Electrical Controls

**Proximity Switch Assembly**  
Mounted on Fixed Landing



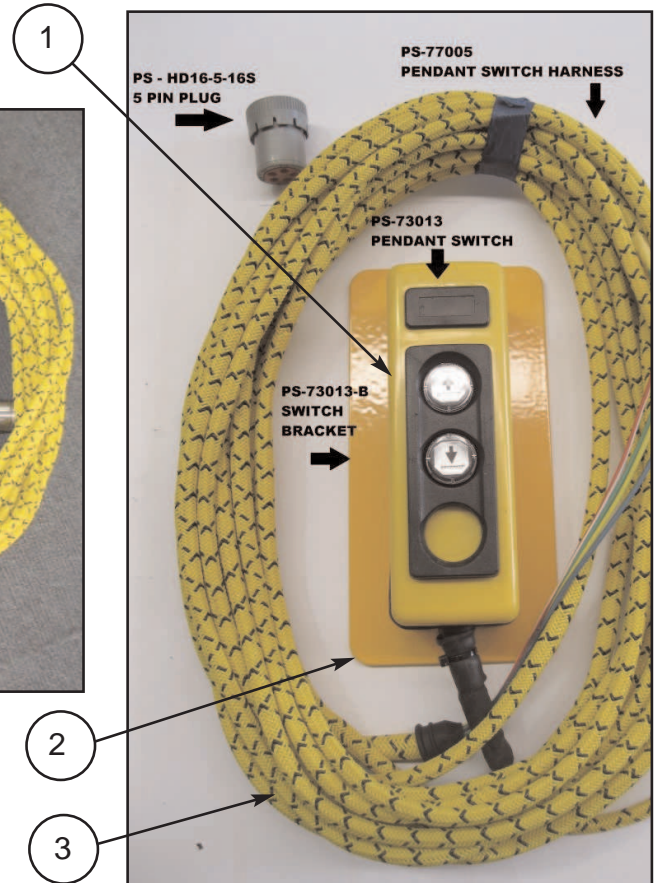
5

6

4

**Cab Harness & Equipment**  
Refer Wiring Harness Drawings

**Control Pendant Switch**  
Mounted on Handrail



1

2

3



7

8

# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 4-10 Electrical Controls

See Photo Page 37

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**

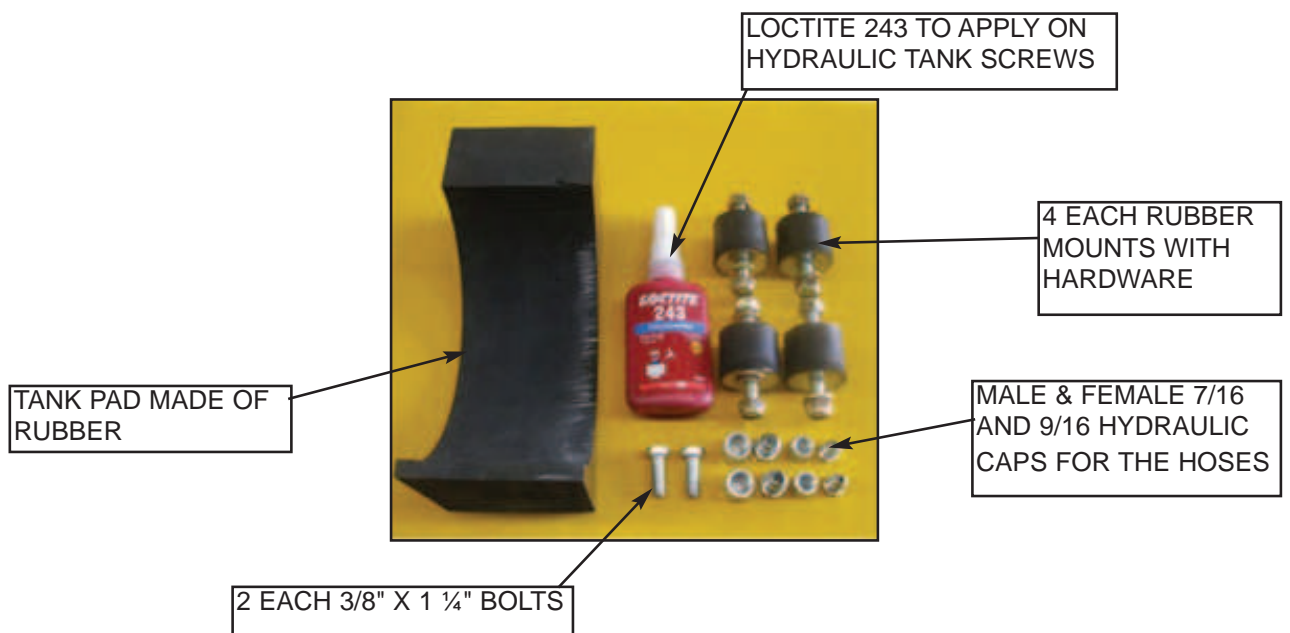
# FOLDING LADDER

## Caterpillar D11T Dozer



### Material Kit supplied

PS-P/PACK-ISO. KIT

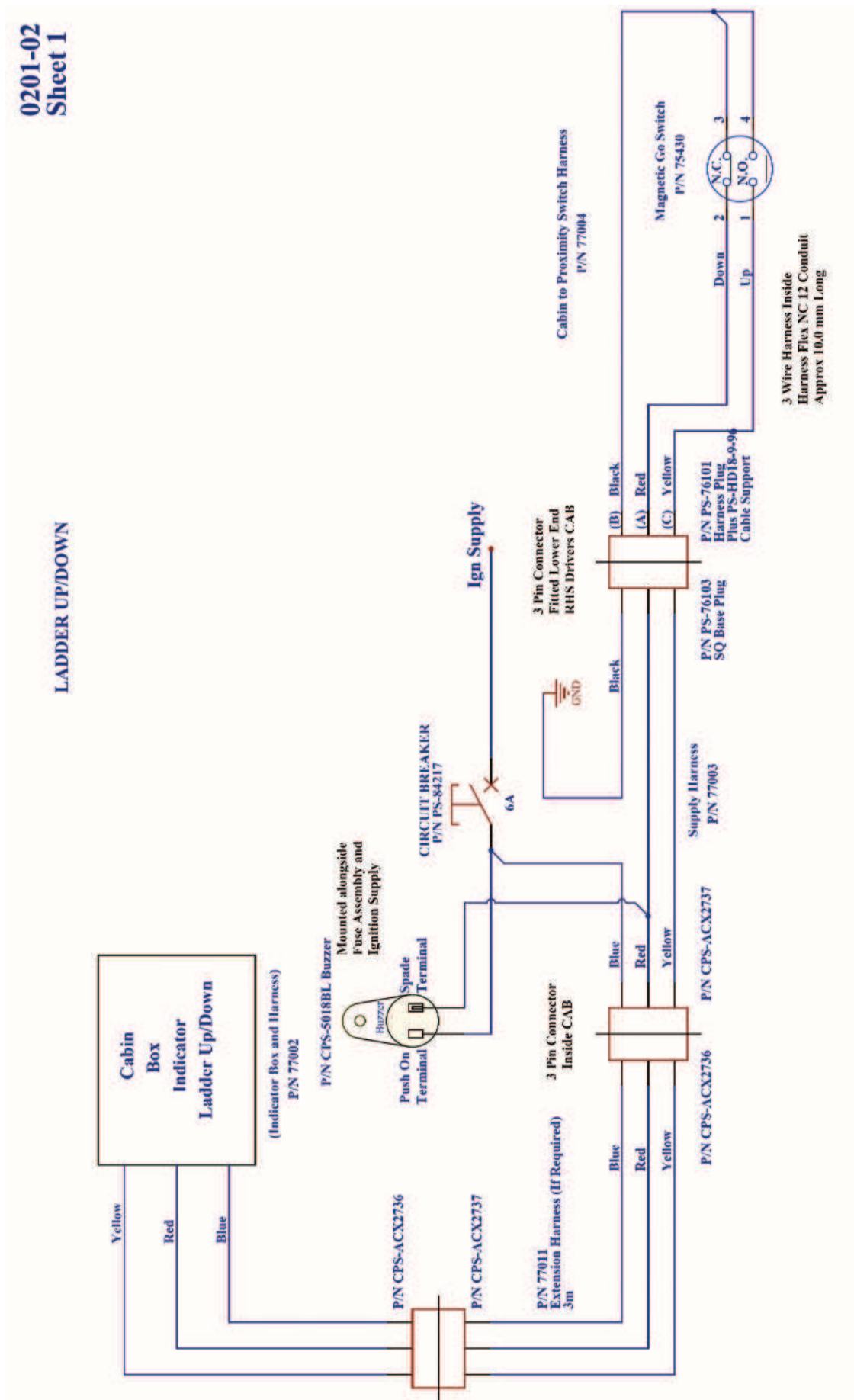


# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 4-10 Electrical System - Wiring Diagrams Page 1





**POWER STEP**

0201-02  
Sheet 2  
Option 1 No Autaraise

**Hand Rail Switch**  
Mounted On Top of Hand Rail  
Hand Rail Switch Bracket  
P/N PS-73013B

**Motor Enclosure**  
P/N PS-73013  
Ref Figure 1

**Connector Box**  
P/N PS-1712080  
Ref Figure 1

**Diode Assy**  
P/N IN4007

**Hydraulic Solenoid**  
P/N 82429

**Up/Down Switch**  
Motor Enclosure  
S4  
P/N 73012

**Power Step Master Switch**  
P/N 84303  
(Mounted Close to Batteries)

**135 Amp CB**  
P/N 84213  
(Mounted to Power Pack Unit)

**Master Solenoid**  
P/N 82492

**Thermal Cut Out Switch**  
70 Deg  
P/N 41211

**Diode Assy**  
P/N IN4007

**12V BATT**  
12V BATT

**Manual Isolator Machine**

**Up Motor**  
P/N 82405

**Horn and Relay Mounted on and in Motor Enclosure**  
P/N 82415

**Bridge Rectifier**  
P/N 84214  
Used For Signal Direction Only

**Beacon**  
If Fitted

**NOTE:**  
Link if required for non A/R.  
Link is Pink Wire.  
See notes (8) and (9) below

**NOTES:**  
CAB Box Warning Lamps Supplied PS-77006  
Hand Rail Switch Harness Supplied with Switch PS-73013  
Switch Bracket PS-73013B  
CAB Box Wiring Supplied PS-77002  
Harness CAB Wiring Supplied PS-77003  
Magnetic GO Switch Plus Wiring PS-75430  
Harness Supplied (Mounted on Step) PS-77004  
Park Brake shown Released (Off)  
135 Amp Circuit Breaker Supplied for Power Supply take off batteries PS-84213  
Plus - Decal PS-41011  
Link pos 5 & 6 of Connector box if Auto Raise System is NOT fitted.  
Remove link between pos 5 & 6 of Connector Box if Auto Raise System IS fitted.

**Figure 1**  
Connector Box P/N PS-712080

Orange	1	5	Red/White
Yellow	2	6	Red
Spare	3	7	Red/White
Blue	4	8	Black

Note: No spare wires in connector box

# FOLDING LADDER

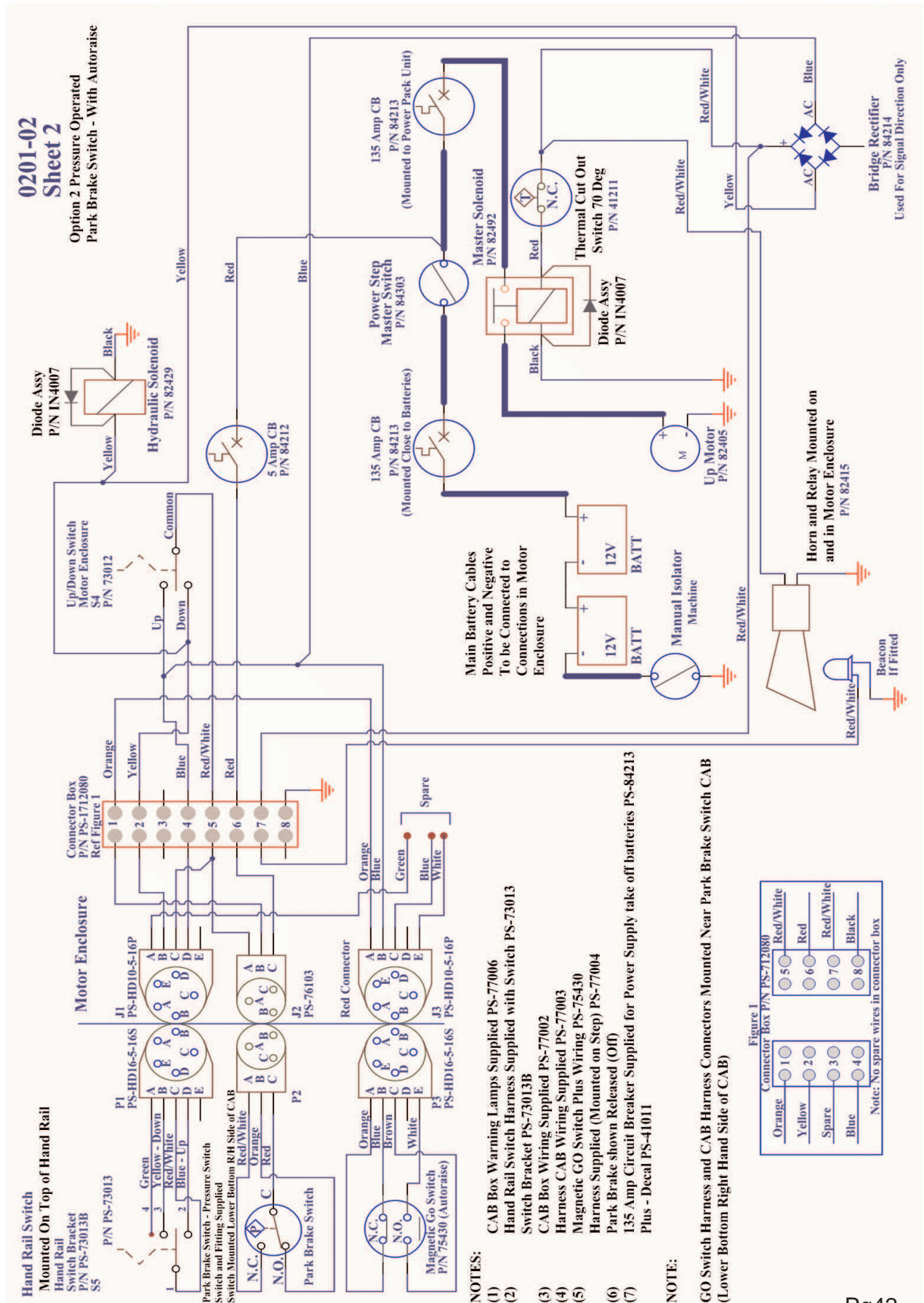
## Caterpillar D11T Dozer



### Section 4-10 Electrical System - Wiring Diagrams Page 3

Auto-Raise

Pressure Switch Operated





# FOLDING LADDER

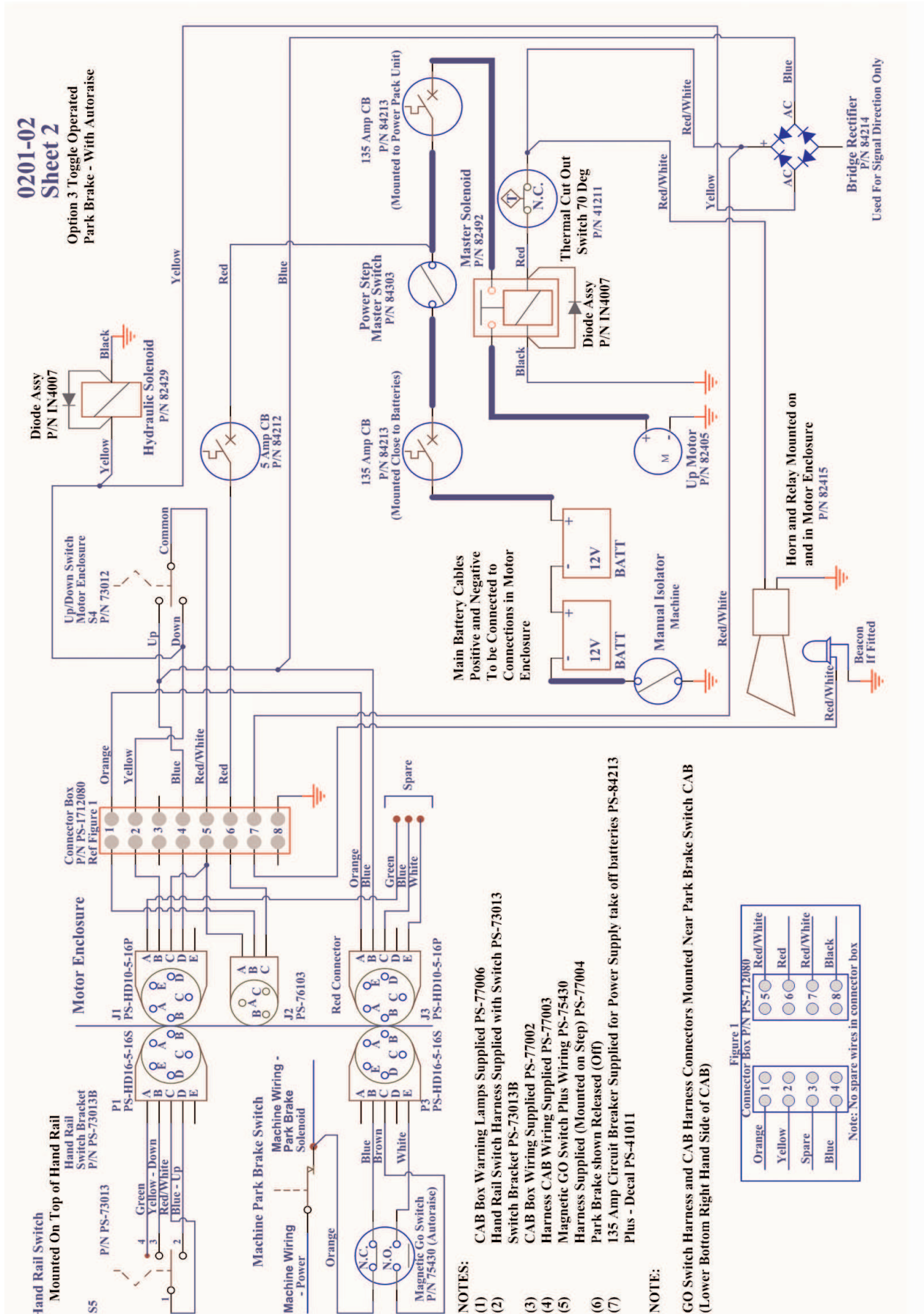
## Caterpillar D11T Dozer



### Section 4-10 Electrical System - Wiring Diagrams Page 4

Auto-Raise

Toggle Switch Operated



# FOLDING LADDER

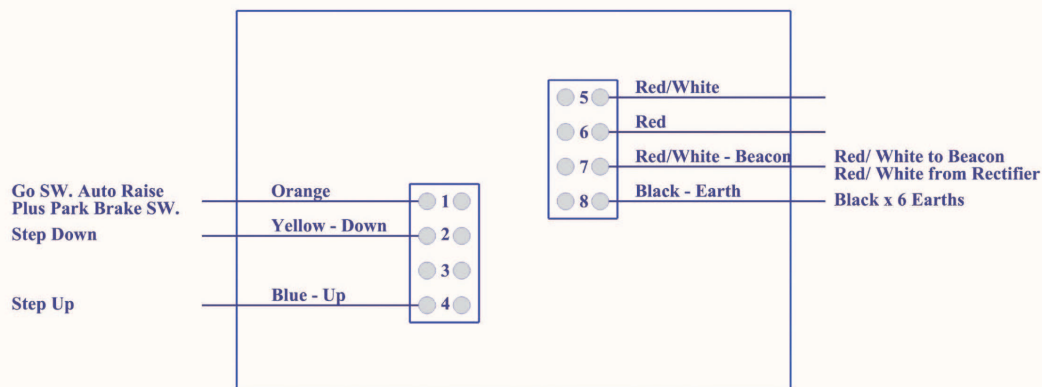
## Caterpillar D11T Dozer



### Section 4-10 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)	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	-		



# FOLDING LADDER

## Caterpillar D11T Dozer



### Section 4-10 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

