snorkel

A38E
A35E



PARTS AND SERVICE

MANUAL

Part number 514252-201

JUNE 2025

Serial Number 01-00715 +

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	GP400 I/O allocations		A38E	
Pin #	Description		A38 Allocation	Comment:
P1-1	CANH			
P1-2	CANL			
P1-3	GND			
P2-1	CANH			
P2-2	CANL			
P2-3	GND			
P4-4	High side PWM output		Lighting packa;	Option
P4-6	High side 2A output		Horn	
P4-12	Safe High side output	48V protected See Note 1	Line contactor	
P4-13	Safe High side output		Brake unlock	V1 & V2: both powered when driving
P4-14	Safe High side output		Brake unlock	
P5-6	High side 2A output		Overload lam	
P5-13	B+ protected Supply	(PTC 140mA)	Elev switch supply	
P6-1	High side 2A output		Lower Boom up	V8
P6-2	High side 2A output		Lower Boom down	
P6-3	High side 2A output		Upper boom up	V7
P6-4	High side 2A output		Upper boom down	
P6-5	High side 2A output		Tele out	V6
P6-6	High side 2A output		Tele in	
P6-7	High side 2A output		Steer left	V5
P6-8	High side 2A output		Steer right	
P6-9	High side 2A output		Turntable CW	V4
P6-10	High side 2A output		Turntable CCW	
P6-11	High side 2A output		Basket level up	V9: basket leveling only operates when the booms are fully stowed, elevation sw. closed (B+)
P6-12	High side 2A output		Basket level down	
P6-13	High side 2A output		Basket Rotate	V10
P6-14	High side 2A output		Basket Rotate	
P6-15	High side 2A output		Buzzer	
P7-1	B+ Digital Input	Valve supply		from P600
P7-2	B+ Digital Input	Valve & Logic supply (ground mode)	Key sw grnd mode	also to P600
P7-3	B+ Digital Input		Elevation sw.	Pole 1
P7-4	B+ Digital Input	Logic supply (platform mode)	Key sw platform mode	also to P600
P7-5	B+ Digital Input		Lower boom sw.	Ground control: enable function, direction and proportional control from grnd fingerjoystick (P8-1), need to hold while function
P7-6	B+ Digital Input		Upper boom sw.	
P7-7	B+ Digital Input		Tele sw.	
P7-8	B+ Digital Input		Turntable sw.	
P7-9	B+ Digital Input		Elevation sw.	Pole 2
P7-10	B+ Digital Input		Boom height switch	Option
P7-11	B+ Digital Input		Motor temperature sensor switch	
P7-12	B+ Digital Input		Emergency pow	Option
P7-13	B- Digital Input			
P7-14	B- Digital Input		Track unit	Option
P7-15	B- Digital Input			
P8-1	Analog Input		grnd finger joystick o/p	Ground control: direction and proportional control of grnd control selected function Std 0.5V/2.5V/4.5V
P8-13	GND		grnd finger joystick	
P15-1	B+ Digital Input		Basket Rotate	Ground control: enable function, direction and proportional control from grnd fingerjoystick (P8-1), need to hold while function
P15-2	B+ Digital Input		Basket Level	
P15-10	B+ protected Supply	140mA PTC shared with 11, 12		
P15-11	B+ protected Supply	140mA PTC shared with 10, 12		
P15-12	B+ protected Supply	140mA PTC shared with 10, 11		

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HOSE ASSEMBLY

500360-000

HYDRAULIC KIT

Upright POWERED ACCESS, YOGO CENTRE, BIRTLEY ROAD, WASHINGTON, TYNE & WEAR, NE38 9DA

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MACHINE DESCRIPTION: AB 38

ITEM	PART NUMBER	QUANTITY OFF	ITEM DESCRIPTION	WORKING PRESSURE	HOSE SIZE	END FITTINGS END 'A'	END FITTINGS END 'B'	TOTAL HOSE LENGTH (incl fittings)	ANG. DISP.
			HOSE KIT ONLY 513069-000					Diameter 'X'	
			HOSE & LOCATION ON MACHINE						
1	500325-000	1	HYDRAULIC MANIFOLD TO TANK	150 Bar	3/8"	3/8" BOF SWEPT 90	3/8" BOF SWEPT 90	530mm	270°
2	500326-000	2	MANIFOLD TO SLEW MOTOR	150 Bar	3/8"	3/8" BOF SWEPT 90	3/8" BOF SWEPT 90	1770 mm	IN-LINE
3	500327-000	2	MANIFOLD TO TELE CYLINDER	150 Bar	3/8"	3/8" BOF SWEPT 90	3/8" BOF STRAIGHT	720 mm	IN-LINE
4	500328-000	2	MASTER TO SLAVE CYLINDER ARM DRIVE 50 1970mm CRE	150 Bar	1/4"	1/4" BOF SWEPT 90	1/4" BOF SWEPT 90	1830 mm	IN-LINE
5	500351-000	2	MANIFOLD TO LOWER LIFT CYLINDER	150 Bar	1/4"	1/4" BOF SWEPT 90	1/4" BOF SWEPT 90	1910 mm	IN-LINE
6	500352-000	2	MANIFOLD TO UPPER LIFT	150 Bar	1/4"	1/4" BOF SWEPT 90	1/4" BOF SWEPT 90	1710 mm	IN-LINE
7	500353-000	2	MANIFOLD TO MASTER CYLINDER	150 Bar	1/4"	1/4" BOF SWEPT 90	1/4" BOF SWEPT 90	1930mm	IN-LINE
8	500354-000	2	MANIFOLD TO STEERING CYLINDER	150 Bar	1/4"	1/4" BOF SWEPT 90	1/4" BOF SWEPT 90	1340 mm	IN-LINE
9	500355-000	2	BRAKES TEE PIECE TO BRAKES	150 Bar	1/4"	1/4" BOF STRAIGHT	1/4" BOF SWEPT 90	580 mm	N/A
10	500356-000	1	MANIFOLD TO BRAKES TEE PIECE	150 Bar	1/4"	1/4" BOF STRAIGHT	1/4" BOF SWEPT 90	1330 mm	N/A
11	500357-000	1	HYDRAULIC TANK TO PUMP	150 Bar	1/2"	1/2" BOF SWEPT 90	1/2" BOF SWEPT 90	345 mm	IN-LINE
12	500358-000	1	HYDRAULIC PUMP TO MANIFOLD	150 Bar	3/4"	3/4" BOF SWEPT 90	3/4" BOF SWEPT 90	265 mm	270°
			FITTINGS KIT ONLY 513070-000			END 'A'	END 'B'		
			BONDED SEAL			END 'C'			
	05370-000	1	1/2" BONDED SEAL			SELF CENTERING CONTY			
	05236-000	11	1/4" BONDED SEAL			SELF CENTERING CONTY			
	51814-000	2	M10 BONDED SEAL			SELF CENTERING CONTY			
	05782-000	1	3/4" BONDED SEAL			SELF CENTERING CONTY			
	50849-000	2	3/8" BONDED SEAL			SELF CENTERING CONTY			
			FITTINGS						
	05721-000	2	ADAPTER MALE - MALE			1/4" BSP MALE	3/8" BSP MALE		
	05723-000	1	ADAPTER MALE - MALE			3/8" BSP MALE	1/2" BSP MALE		
	05726-000	12	ADAPTER MALE - MALE			1/4" BSP MALE	1/4" BSP MALE		
	12-1068	1	ADAPTER MALE - MALE			3/4" BSP MALE	1/2" BSP MALE		
	05885-000	2	ADAPTER MALE - MALE			M10x1 MALE	1/4" BSP MALE		
	05721-000	1	ADAPTER MALE - MALE			3/8" BSP MALE	3/8" BSP MALE		
						END 'A'	END 'B'		
13	05850-000	1	EQUAL TEE			1/4" BSP MALE	1/4" BSP MALE	1/4" BSP MALE	
14*	13 3549	1	IN LINE CHECK VALVE			3/8" BSP MALE	3/8" BSP MALE		

ISSUE	1	2	2A	3	4	5	6	7	DRAWN BY : AW LISTER	DATE : 8 NOVEMBER 2007	DRAWING N°
ECR No.	25302	25508 (30/09/2008)	AWL 29.01.2009	25576 (04/2009)	25586 15/4/09	25905 (28/11/2011)	25939 25/08/12	26139*	APPROVED BY : S DOWNES	SHEET 1 of 1	500360-000

TIGHTENING TORQUES FOR HOSES AND FITTINGS

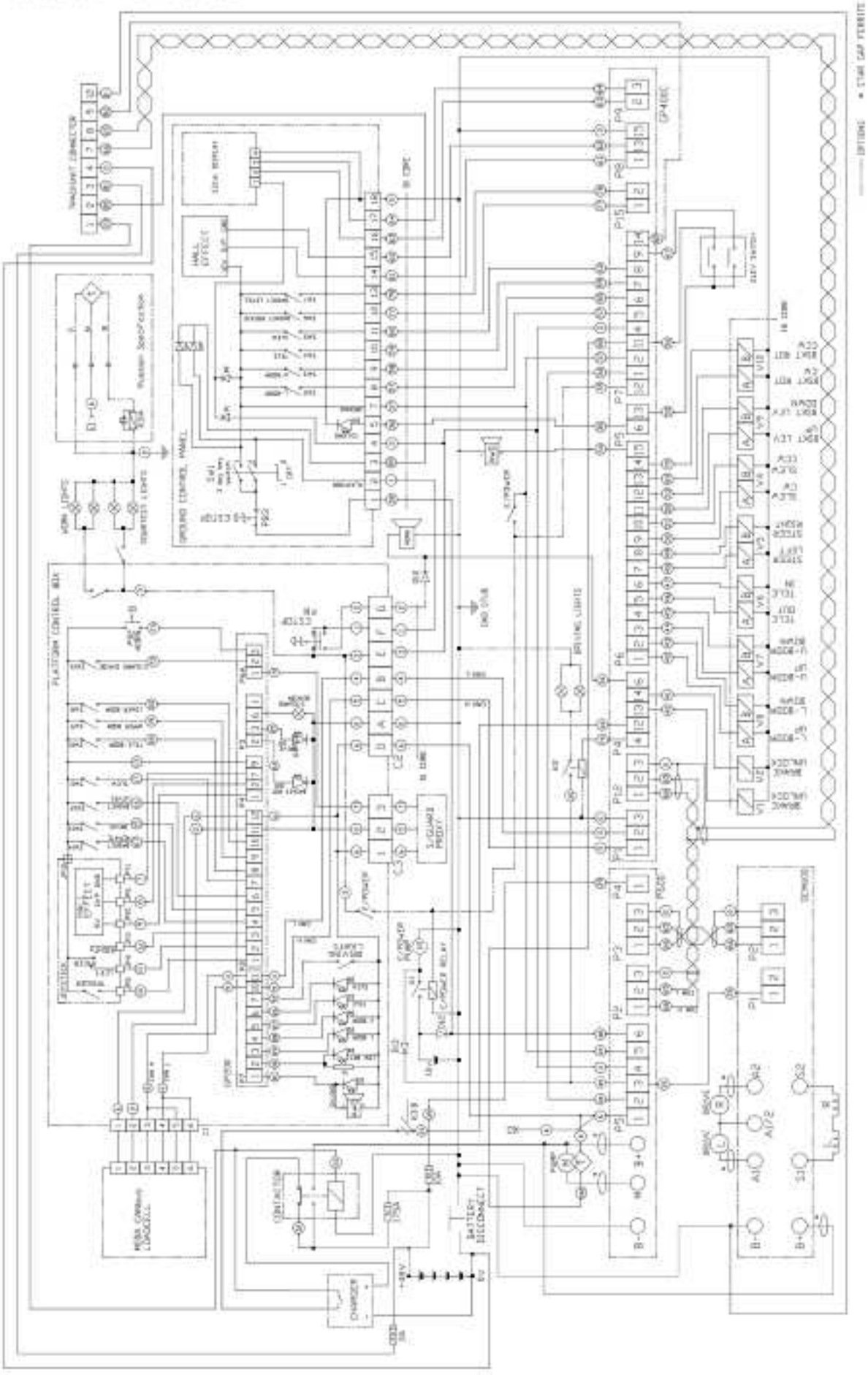
ADAPTER	HOSE NUT STD	HOSE NUT O'RING
1/4" BSP	34 Nm	41 Nm
3/8" BSP	47 Nm	68 Nm
1/2" BSP	102 Nm	122 Nm
3/4" BSP	149 Nm	149 Nm

*NOTE
ITEM 14 IS NOT INCLUDED IN THE HOSE KIT AND SHOULD BE ORDERED SEPARATELY

NOTES
ALL HOSES TO BE R17 OR EQUIVALENT TO ALLOW TIGHT BEND RADII
ALL HOSES TO BE TESTED TO 1.5 TIMES THE WORKING PRESSURE
ALL HOSES TO BE CLEANED TO NAS 10 SPECIFICATIONS, AND ENDS PLUGGED OR CAPPED
ALL HOSES TO BE CLEARLY MARKED WITH THE Upright PART NUMBER
ANGULAR DISPLACEMENT CONVENTION - END A IS ALWAYS PLACED FURTHEST AWAY AND VERTICALLY UP
END B IS THEN TURNED CLOCKWISE FROM THE VERTICAL DATUM

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Electrical Schematics



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2. Provide a suitable container to catch the drained oil. Hydraulic tank has a capacity of 25 Litres (6.5 Gallons US).
3. Remove the drain plug on the lower side and allow all oil to drain.
4. Clean the magnetic drain plug and reinstall.
5. Disconnect the return hose and hose fitting from inlet port of the hydraulic return filter. Loosen and remove the filter cover retaining bolts. Remove filter (10 micron) assembly. Replace with a new filter.
6. Fill the hydraulic reservoir with hydraulic oil (see Section 1-2) checking level with dipstick.
7. Recycle used oil as per local environmental regulations.

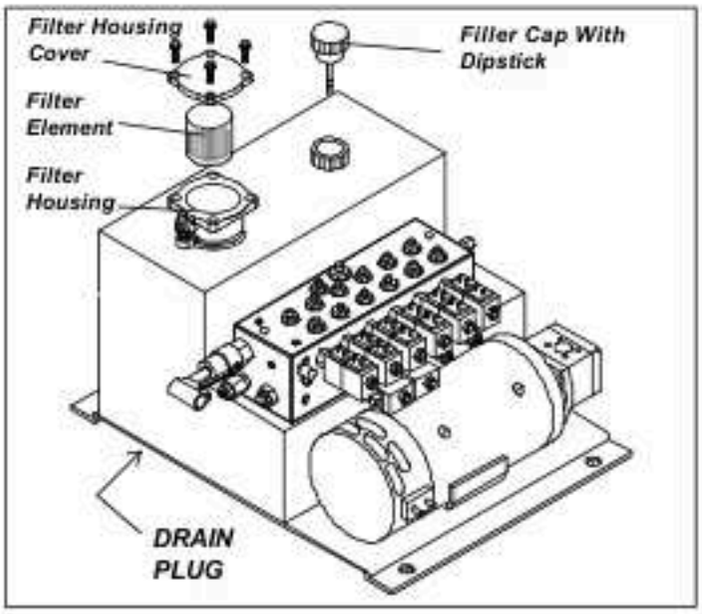


Figure 4-2: Oil and Filter Replacement

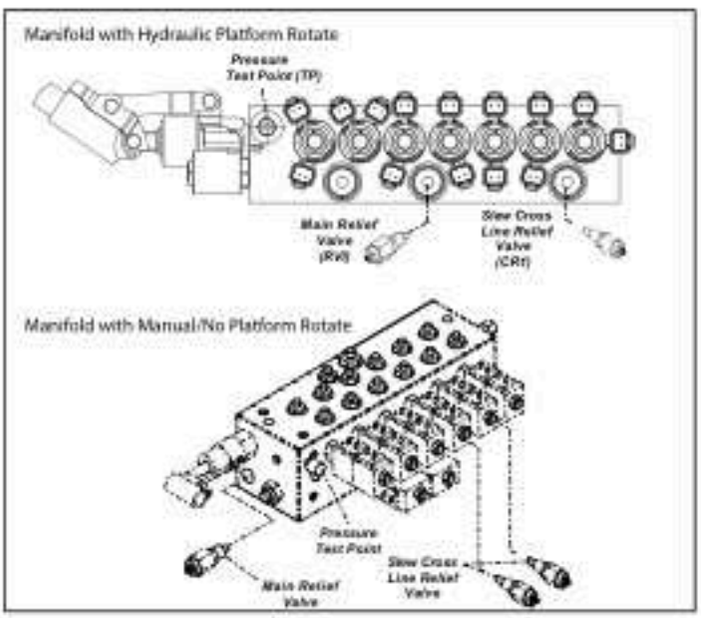


Figure 4-3: Manifold Block

4.5 Setting Hydraulic Pressures (Figure 4-3)

Check the hydraulic pressures whenever the pump, manifold or relief valve have been serviced or replaced.

WARNING

The hydraulic oil may be of sufficient temperature to cause burns. Wear safety gloves and safety glasses when handling hot oil. The oil in the hydraulic system is under very high pressure which can easily cause severe cuts. Obtain medical assistance immediately if cut by hydraulic oil.

MAIN RELIEF VALVE *(Figure 4-3,4)*

1. Operate the hydraulic system for 10-15 minutes to warm the oil.
2. Remove the cover from the Chassis body.
3. Insert pressure gauge into the high pressure gauge port (TP) on the Manifold Block.
4. Loosen locknut on main relief valve and turn adjusting screw anticlockwise two full turns using a 4 mm Allen key.
5. Operate the Telescope RETRACT function switch from lower controls and keep it activated.
6. Slowly turn the main relief valve adjusting screw clockwise until the pressure gauge reads 195 Bar (2828 p.s.i.) pressure.
7. Release the Telescope RETRACT switch.
8. Tighten locknut on main relief valve while holding the adjusting screw in position.

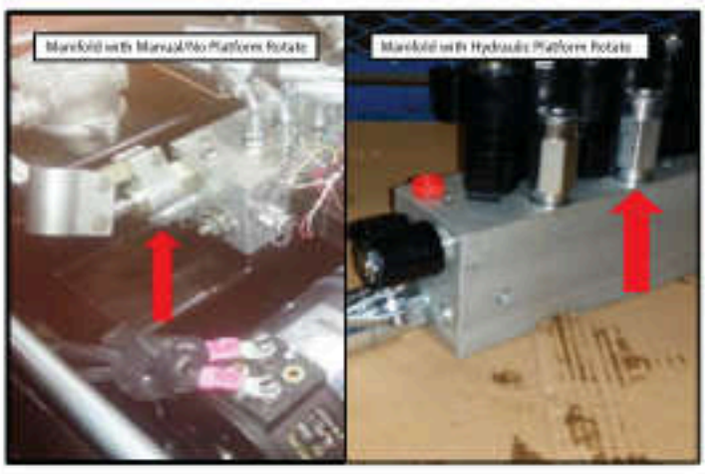


Figure 4-4: Setting Main Relief Pressures

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When the A38E is on the Truck it should then be made secure.

1. Chock the wheels of the A38E/A35E.
2. Secure the work platform to the transport vehicle with chains or straps of adequate load capacity attached to the lifting lugs on the chassis.

⚠ CAUTION ⚠

Overtightening of the chains or straps through tie down lugs may result in damage to the Work Platform.

2.6 Manual Brake Release

⚠ CAUTION ⚠

Perform this operation only when the machine will not operate under its own power and it is necessary to move the machine, or for winching onto a trailer for transportation.

Ensure the machine is on level ground before commencing this operation and use wheel chocks as appropriate to prevent the machine from rolling inadvertently.

Do not exceed 3 mph. Faster speeds will damage drive components and void warranty.

1. Ensure that the Platform is fully lowered and that the Elevating Assembly is slewed (rotated) such that the platform is stowed above the drive wheels. Turn the Upper Control Box to the OFF position and remove the key.
2. Attach a chain/cable of sufficient capacity for towing the machine to the front or rear lifting/ tie down lugs. Take up the slack in the chain/ cable.
3. Locate the Allen head socket screws located in the centre of the two drive (rear) wheels and using a 6 mm Allen key, turn each one clockwise to its full extent. The machine is now in freewheel mode.

⚠ WARNING ⚠

DO NOT leave the machine unattended or attempt to operate the A38E/A35E Work Platform until the Brake Release Screws have been re-engaged.

4. When towing is completed, turn both Allen head socket screws in a counter clockwise direction until they rest firmly against the locking circlip.

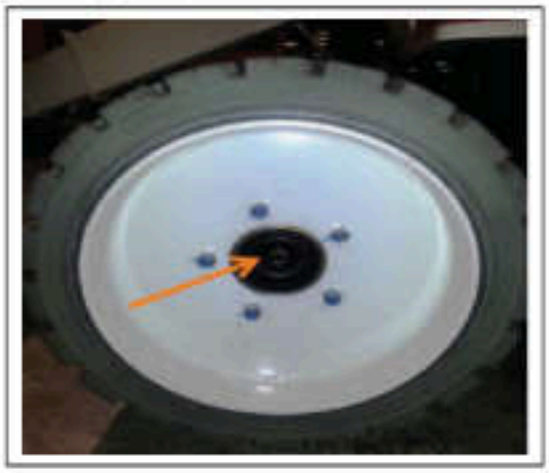


Figure 2-2 : Manual Brake Release

2.7 Storage

No preparation is required for storage when the Work Platform is in regular use. Regular maintenance per *Table 4-1* should be performed.

If the work platform is to be placed in long term storage (dead storage) use the following preservation procedure.

PRESERVATION

1. Clean painted surfaces. If the painted surface is damaged, repaint.
2. Fill the hydraulic tank to operating level with the platform fully lowered. Fluid should be visible on the Dip Stick. It is not recommended that the hydraulic fluid be drained.
3. Coat exposed portions of cylinder rods with a preservative such as multipurpose grease and wrap with barrier material.
4. Coat all exposed unpainted metal surfaces with preservative.

BATTERIES

1. Disconnect the batteries at the switch (refer to Figure 2-3).
2. Disconnect the battery leads and secure to the chassis.

⚠ WARNING ⚠

Care should be taken, while disconnecting the battery leads, that a short circuit does not occur. i.e. grounding to the chassis with a spanner.

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