



# COUNTERBALANCE CRANES

**OWNER'S MANUAL**

**PRODUCT CODE: AMCC/APCC/APCCL**

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**FEB. 2021**

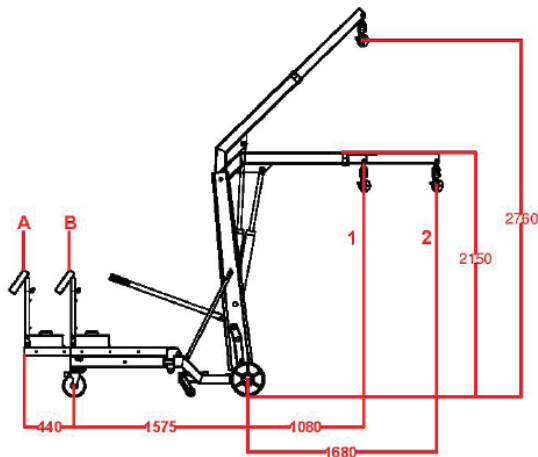
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Aardwolf Counterbalanced Floor Cranes are designed to pick and carry loads in tight, hard-to-reach areas. Fitted with hard wearing, high capacity nylon front wheels, these counterbalanced floor cranes can pick and carry loads and be pushed on a flat surface to transport materials on solid paved surfaces.

PRODUCT NAME	Manual Counter-balance Crane	Powered Counter-balance Crane	Powered Counter-balance Crane with lateral movement
PRODUCT CODE	AMCC	APCC	APCCL
FEATURES	<ul style="list-style-type: none"> <li>• An integral counter weight.</li> <li>• Max load is 540kg.</li> <li>• Max reach is 1.7m</li> <li>• Maximum lift height is 2.760m.</li> <li>• Folds down for easy transportation</li> </ul>	<ul style="list-style-type: none"> <li>• An integral counter weight.</li> <li>• Max load is 540kg.</li> <li>• Max reach is 1.7m</li> <li>• Maximum lift height is 2.760m.</li> <li>• Folds down for easy transportation.</li> <li>• An ease to operate hydraulically lifted extending boom.</li> </ul>	<ul style="list-style-type: none"> <li>• An integral counter weight.</li> <li>• Max load is 540kg.</li> <li>• Max reach is 1.7m</li> <li>• Maximum lift height is 2.760m.</li> <li>• Folds down for easy transportation.</li> <li>• An ease to operate hydraulically lifted extending boom.</li> <li>• Extra hydraulic cylinder for lateral movement of the front axil.</li> </ul>
NET WEIGHT	756 kg	656 kg	830 kg



MANUAL COUNTERBALANCE CRANE



COUNTERWEIGHT OPTIONS	BALANCE POSITIONS	HOOK POSITIONS	LENGTH mm (inch)	CAPACITY kgs (lbs)
400kgs	POS. A	POS. 1	1100 (43")	500 (1102)
		POS. 2	1700 (67")	320 (705)
	POS. B	POS. 1	1100 (43")	400 (882)
		POS. 2	1700 (67")	250 (551)
300kgs	POS. A	POS. 1	1100 (43")	400 (882)
		POS. 2	1700 (67")	250 (551)
	POS. B	POS. 1	1100 (43")	320 (706)
		POS. 2	1700 (67")	200 (441)
200kgs	POS. A	POS. 1	1100 (43")	290 (639)
		POS. 2	1700 (67")	190 (419)
	POS. B	POS. 1	1100 (43")	230 (507)
		POS. 2	1700 (67")	170 (375)
100kgs	POS. A	POS. 1	1100 (43")	190 (419)
		POS. 2	1700 (67")	120 (265)
	POS. B	POS. 1	1100 (43")	150 (331)
		POS. 2	1700 (67")	100 (221)



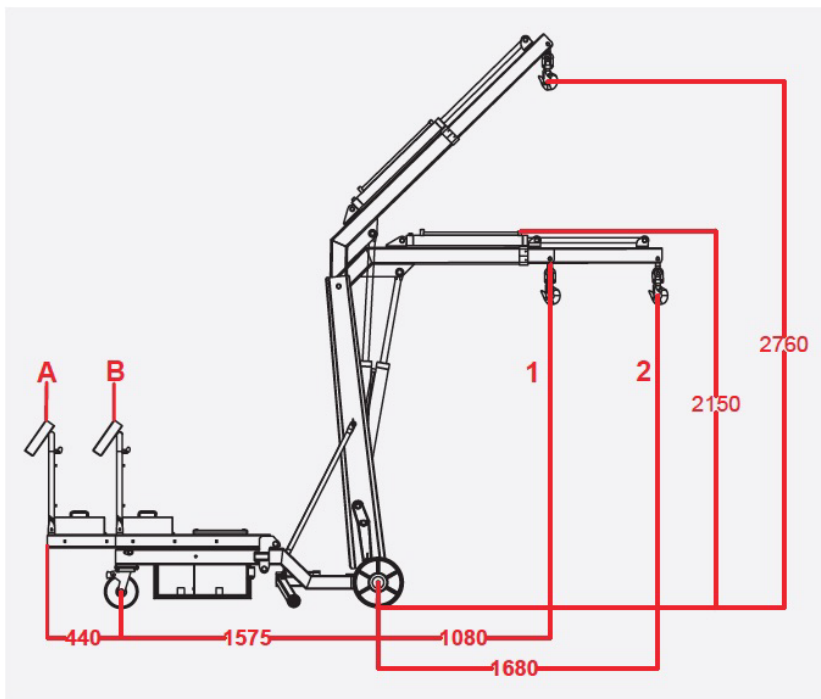
COUNTER BALANCES CRANE		
Packing dimension	Length	1840mm
	Width	860mm
	Height	930mm
Overall dimension	Length	3750mm
	Width	1980mm
	Height	2800mm
Wheel	Load wheel diameter	300mm
	Driving wheel diameter	200mm

## POWERED COUNTERBALANCE CRANES

COUNTERWEIGHT OPTIONS	BALANCE POSITIONS	HOOK POSITIONS	LENGTH mm (inch)	CAPACITY kgs (lbs)
400kgs	POS. A	POS. 1	1100 (43")	540 (1191)
		POS. 2	1700 (67")	350 (772)
	POS. B	POS. 1	1100 (43")	440 (970)
		POS. 2	1700 (67")	290 (639)
300kgs	POS. A	POS. 1	1100 (43")	440 (970)
		POS. 2	1700 (67")	280 (617)
	POS. B	POS. 1	1100 (43")	360 (794)
		POS. 2	1700 (67")	230 (507)
200kgs	POS. A	POS. 1	1100 (43")	340 (750)
		POS. 2	1700 (67")	210 (463)
	POS. B	POS. 1	1100 (43")	280 (617)
		POS. 2	1700 (67")	180 (397)
100kgs	POS. A	POS. 1	1100 (43")	230 (507)
		POS. 2	1700 (67")	150 (331)
	POS. B	POS. 1	1100 (43")	200 (441)
		POS. 2	1700 (67")	130 (287)



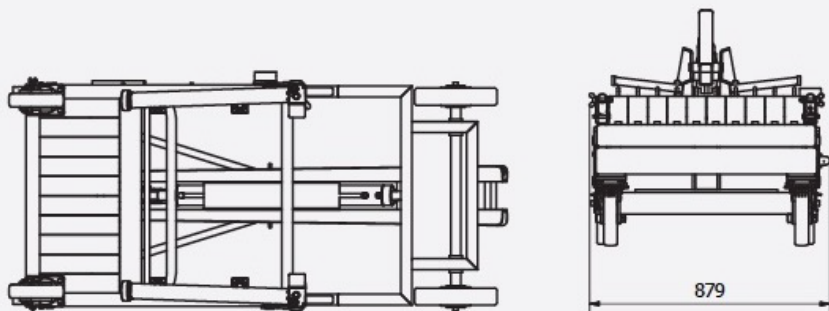
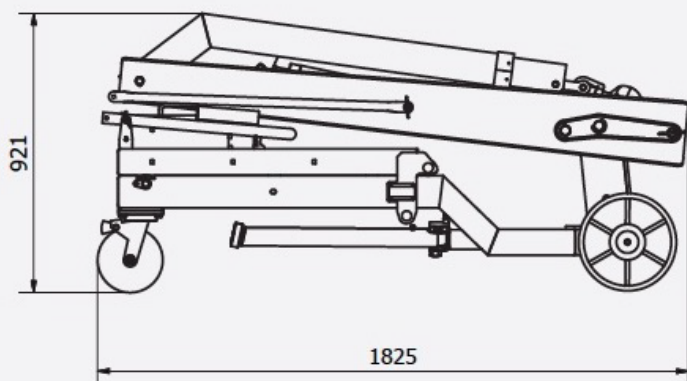
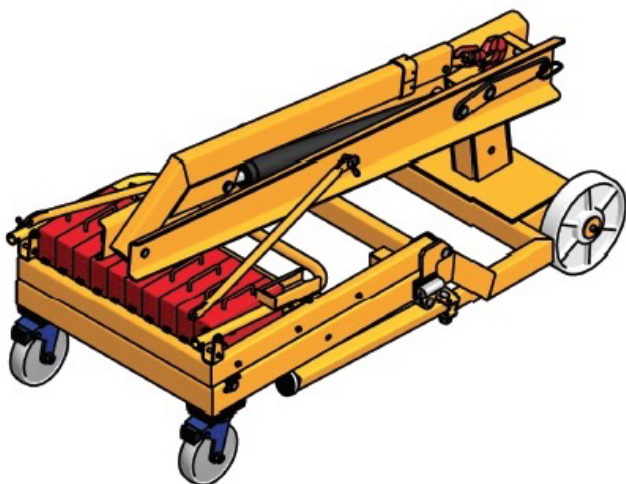




## COUNTERBALANCE CRANE

Lifting speed (mm/s)		≥ 50
Lowring speed (mm/s)		Controllable
Lifting motor		12V / 1600W
Battery		12V / 150Ah
Charge (Input / Output)		220V / 12V
Packing dimension	Length	1840mm
	Width	860mm
	Height	930mm
Overall dimension	Length	3750mm
	Width	1980mm
	Height	2800mm
Wheel	Load wheel diameter	300mm
	Driving wheel diameter	200mm





- Be aware of the abilities and limitations of your crane. Improper use of the crane could damage the crane, lifted load, surroundings or even cause injury or death.
- Apply wheel brake before attempting a lift.
- Always make sure the load is secured to the hook with the safety latch in the closed position on the hook prior to lifting the load.
- A load suspended overhead should be avoided; never walk under one.
- When you leave the Counterbalance Crane for a break or lunch, lower the load to the ground, as it can result in injury if the load were to become unstable in your absence.
- Dragging the load with the boom will result in damage to the equipment and could cause injury to the people around the load.
- The crane boom is designed to lift; it is not intended to be used to force a downward pressure on any type of operation.
- Be sure your equipment is neat, clean and clearly marked; if anything is damaged, have it replaced.
- Look at your capacity charts before making a lift of the load, use a minimum lifting height and understand the load is moving, which can alter your stability and capacity.
- Know your load and the crane tip locations at all times during the lift.
- Center the load directly under the crane tip to give you a safe, smooth lift.
- Do not allow the lift to swing from side to side, which causes an unsafe and uncontrolled load to shift.

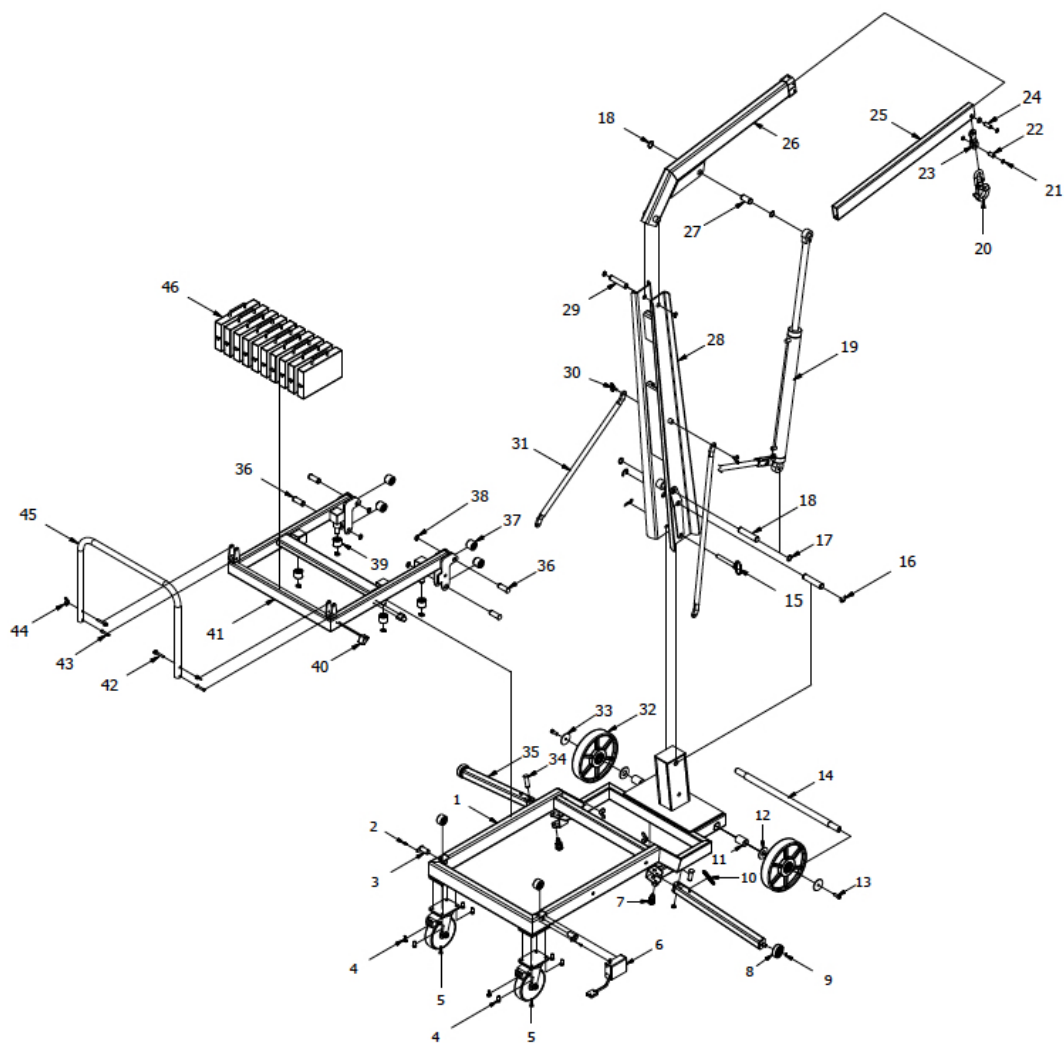


The operation of any lifting attachments always requires attentive reading of manual and operator's competence as well as conformity of any safety regulations stipulated by local authorities and the manufacturer. Below is not an all-inclusive list, so the owner of the machinery may want to supply its own list of safety precautions as well. However, follow the safety requirements listed and you will have the basic knowledge of safety on the job.

- Know your surroundings and maintain a mindset of working safely, from the beginning to the end of each job.
- Understand well your equipment, knowing its limitations and strengths. Maintenance of the equipment is second priority; as with any piece of machinery, if not kept clean and in working order, the equipment will likely malfunction. Follow a preventive maintenance schedule with your machine and a routine visual inspection of the equipment before you start any jobs.
- The operator must have a working knowledge of all safety and government regulations. Aardwolf is not liable for accidents caused by the improper operation of the crane.
- Being the owner of the equipment, it is your responsibility to establish a training process for your operators by qualified people before starting the job. As with any equipment, this equipment cannot be operated by anyone under the influence of alcohol, drugs, or prescription medication that impairs the operator physically, mentally or physiologically.
- The Counterbalance Crane should be used on solid paved surfaces.
- Never exceed the load capacity for the Counterbalance Cranes. These ratings are based on tested capacities of the Counterbalance Crane and the structural design and mechanical abilities of the components on the crane.



## MANUAL COUNTERBALANCE CRANE \_DIAGRAM ASSEMBLY\_



# MANUAL COUNTERBALANCE CRANE

## \_SPARE PARTS\_

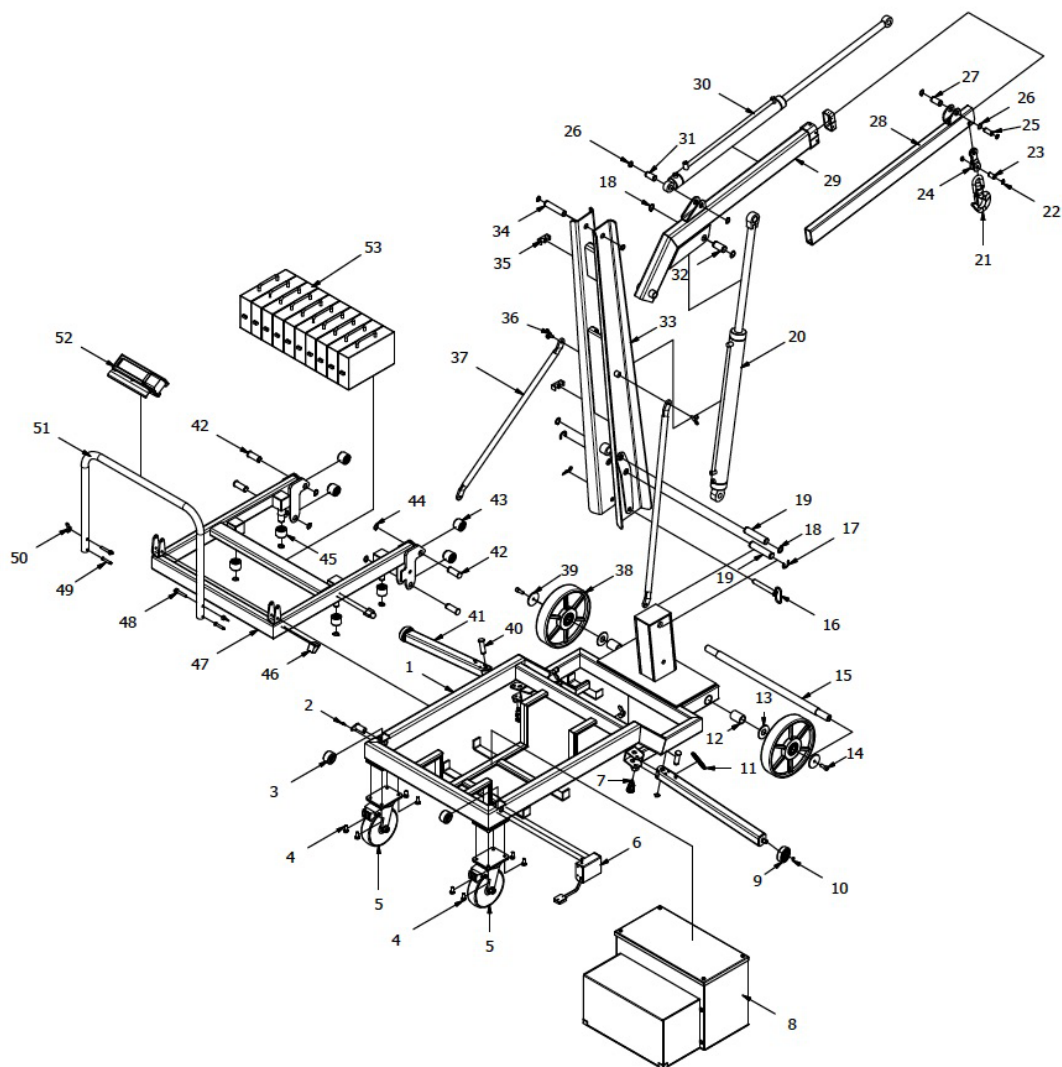
## PARTDRAWING & PARTLIST

No.	Code	Part Number	Q'ty
1	AMCC-01	Base Frame	01
2	AMCC-02	Bolt M6 x 12	02
3	AMCC-03	Roll - 54	02
4	AMCC-04	Bolt M12 x 25	08
5	AMCC-05	Wheel 200	02
6	AMCC-06	Leg brake	01
7	AMCC-07	Latch locking	02
8	AMCC-08	Wheel 73	02
9	AMCC-09	Circlip 14 x 1	02
10	AMCC-10	Extension Spring	02
11	AMCC-11	Brass	02
12	AMCC-12	Washer 68 x 30.5 x 4	02
13	AMCC-13	Bolt M12 x 30	02
14	AMCC-14	Axle 35 x 802	01
15	AMCC-15	Pin 20 x 127	01
16	AMCC-16	Circlip CNS 9076 - 24	02
17	AMCC-17	Circlip 29 x 1.4	04
18	AMCC-18	Pin 30 x 136	02
19	AMCC-19	Cylinder (Stroke 685)	01
20	AMCC-20	Swivel Hook	01
21	AMCC-21	Circlip 18 x 1.2	04
22	AMCC-22	Pin 18 x 34	01
23	AMCC-23	Hook 500 Kgs	01

No.	Code	Part Number	Q'ty
24	AMCC-24	Pin 18 x 46	01
25	AMCC-25	Arm	01
26	AMCC-26	Beam	01
27	AMCC-27	Pin 30 x 70	01
28	AMCC-28	Column	01
29	AMCC-29	Pin 24 x 122	01
30	AMCC-30	Wing bolt M10	02
31	AMCC-31	Post	02
32	AMCC-32	Wheel 300	02
33	AMCC-33	Washer 68 x 30.5 x 4	02
34	AMCC-34	Pin 20 x 64	02
35	AMCC-35	Support wheel	02
36	AMCC-36	Pin 25 x 66	04
37	AMCC-37	Roller 48 x 50	04
38	AMCC-38	Circlip 25 x 1.2	08
39	AMCC-39	Roller 48 x 37	04
40	AMCC-40	Block locking	02
41	AMCC-41	Moving frame	01
42	AMCC-42	Bolt M10 x 60	02
43	AMCC-43	Pin 10 x 50	02
44	AMCC-44	Wing nut M10	02
45	AMCC-45	Handle	01
46	AMCC-46	Counterweight 40kgs	10



## POWERED COUNTERBALANCE CRANE \_DIAGRAM ASSEMBLY\_





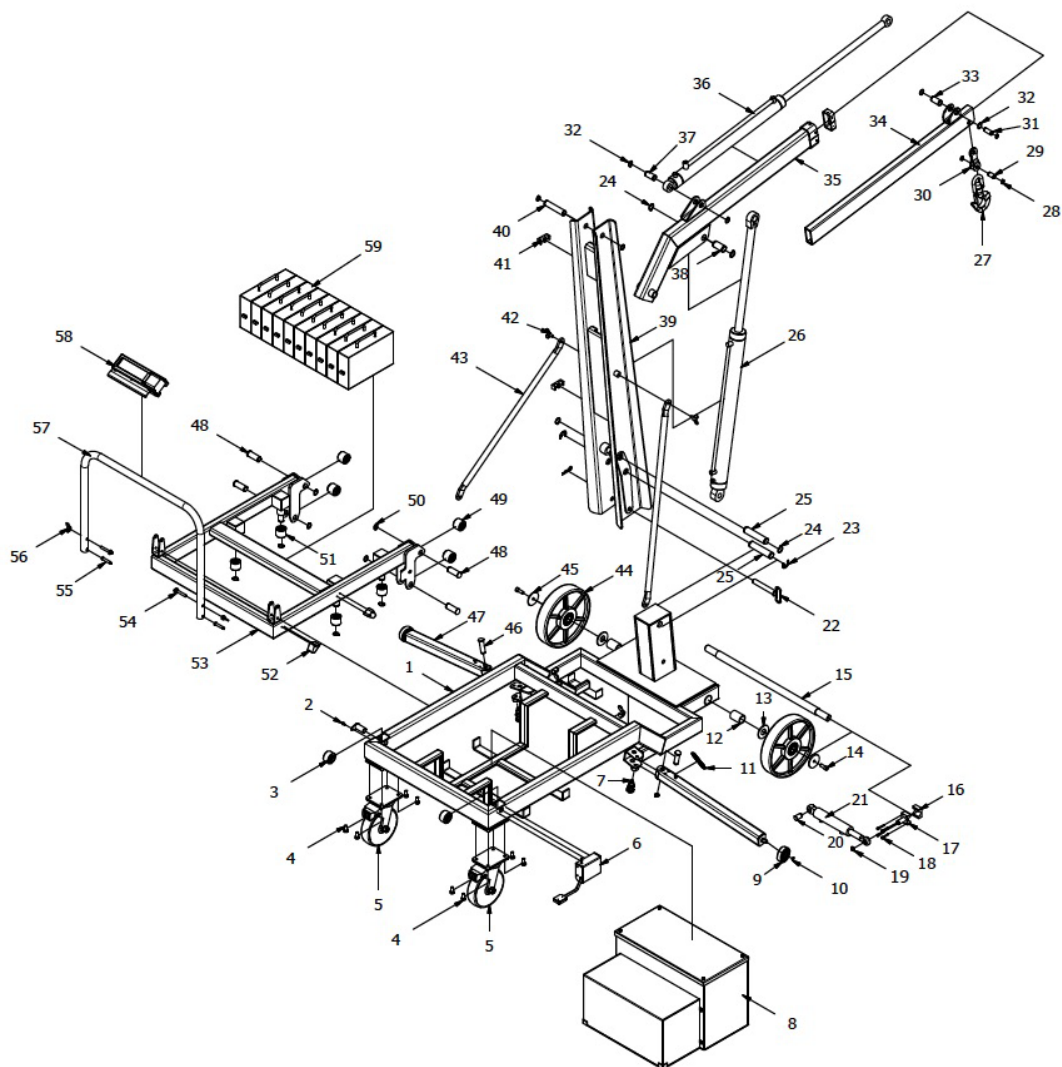
# POWERED COUNTERBALANCE CRANE SPARE PARTS

## PARTDRAWING & PARTLIST

PARTS LIST				PARTS LIST			
No.	Code	Part Number	Qty	No.	Code	Part Number	Qty
1	APCC-01	Base Frame	01	28	APCC-28	Arm	01
2	APCC-02	Bolt M6 x 12	02	29	APCC-29	Beam	01
3	APCC-03	Roll - 54	02	30	APCC-30	Cylinder (Stroke 600)	01
4	APCC-04	Bolt M12 x 25	08	31	APCC-31	Pin 25 x 50	01
5	APCC-05	Wheel 200	02	32	APCC-32	Pin 30 x 70	01
6	APCC-06	Leg brake	01	33	APCC-33	Column	01
7	APCC-07	Latch locking	02	34	APCC-34	Pin 24 x 122	01
8	APCC-08	Power Pack System	01	35	APCC-35	Plastic bracket	01
9	APCC-09	Wheel 73	02	36	APCC-36	Wing bolt M10	02
10	APCC-10	Circlip 14 x 1	02	37	APCC-37	Post	02
11	APCC-11	Extension Spring	02	38	APCC-38	Wheel 300	02
12	APCC-12	Brass	02	39	APCC-39	Washer 68 x 30.5 x 4	02
13	APCC-13	Washer 68 x 30.5 x 4	02	40	APCC-40	Pin 20 x 64	02
14	APCC-14	Bolt M12 x 30	02	41	APCC-41	Support wheel	02
15	APCC-15	Axle 35 x 802	01	42	APCC-42	Pin 25 x 66	04
16	APCC-16	Pin 20 x 127	01	43	APCC-43	Roller 48 x 50	04
17	APCC-17	Circlip CNS 9076 - 24	02	44	APCC-44	Circlip 25 x 1.2	08
18	APCC-18	Circlip 29 x 1.4	04	45	APCC-45	Roller 48 x 37	04
19	APCC-19	Pin 30 x 136	02	46	APCC-46	Block locking	02
20	APCC-20	Cylinder (Stroke 685)	01	47	APCC-47	Moving frame	01
21	APCC-21	Swivel Hook	01	48	APCC-48	Bolt M10 x 60	02
22	APCC-22	Circlip 18 x 1.2	04	49	APCC-49	Pin 10 x 50	02
23	APCC-23	Pin 18 x 34	01	50	APCC-50	Wing nut M10	02
24	APCC-24	Hook 500 Kgs	01	51	APCC-51	Handle	01
25	APCC-25	Pin 18 x 46	02	52	APCC-52	Remote holder	01
26	APCC-26	Circlip 24 x 1.2	04	53	APCC-53	Counterweight 40kgs	10
27	APCC-27	Pin 25 x 57	01				



## POWERED COUNTERBALANCE CRANE WITH LATERAL MOVEMENT \_DIAGRAM ASSEMBLY\_



# POWERED COUNTERBALANCE CRANE WITH LATERAL MOVEMENT

## SPARE PARTS

### PARTDRAWING & PARTLIST

PARTS LIST				PARTS LIST			
No.	Code	Part Number	Qty	No.	Code	Part Number	Qty
1	APCCL-01	Base Frame	01	30	APCCL-30	Hook 500 Kgs	01
2	APCCL-02	Bolt M6 x 12	02	31	APCCL-31	Pin 18 x 46	02
3	APCCL-03	Roll - 54	02	32	APCCL-32	Circlip 24 x 1.2	04
4	APCCL-04	Bolt M12 x 25	08	33	APCCL-33	Pin 25 x 57	01
5	APCCL-05	Wheel 200	02	34	APCCL-34	Arm	01
6	APCCL-06	Leg brake	01	35	APCCL-35	Beam	01
7	APCCL-07	Latch locking	02	36	APCCL-36	Cylinder (Stroke 600)	01
8	APCCL-08	Power Pack System	01	37	APCCL-37	Pin 25 x 50	01
9	APCCL-09	Wheel 73	02	38	APCCL-38	Pin 30 x 70	01
10	APCCL-10	Circlip 14 x 1	02	39	APCCL-39	Column	01
11	APCCL-11	Extension Spring	02	40	APCCL-40	Pin 24 x 122	01
12	APCCL-12	Brass	02	41	APCCL-41	Plastic bracket	01
13	APCCL-13	Washer 68 x 30.5 x 4	02	42	APCCL-42	Wing bolt M10	02
14	APCCL-14	Bolt M12 x 30	02	43	APCCL-43	Post	02
15	APCCL-15	Axle 35 x 802	01	44	APCCL-44	Wheel 300	02
16	APCCL-16	Clip brack - A	01	45	APCCL-45	Washer 68 x 30.5 x 4	02
17	APCCL-17	Clip brack - B	01	46	APCCL-46	Pin 20 x 64	02
18	APCCL-18	Bolt M6 x 35	04	47	APCCL-47	Support wheel	02
19	APCCL-19	Circlip 20 x 1.2	04	48	APCCL-48	Pin 25 x 66	04
20	APCCL-20	Pin 20 x 34	01	49	APCCL-49	Roller 48 x 50	04
21	APCCL-21	Cylinder (Stroke 90)	01	50	APCCL-50	Circlip 25 x 1.2	08
22	APCCL-22	Pin 20 x 127	01	51	APCCL-51	Roller 48 x 37	04
23	APCCL-23	Circlip CNS 9076 - 24	02	52	APCCL-52	Block locking	02
24	APCCL-24	Circlip 29 x 1.4	04	53	APCCL-53	Moving frame	01
25	APCCL-25	Pin 30 x 136	02	54	APCCL-54	Bolt M10 x 60	02
26	APCCL-26	Cylinder (Stroke 685)	01	55	APCCL-55	Pin 10 x 50	02
27	APCCL-27	Swivel Hook	01	56	APCCL-56	Wing nut M10	02
28	APCCL-28	Circlip 18 x 1.2	04	57	APCCL-57	Handle	01
29	APCCL-29	Pin 18 x 34	01	58	APCCL-58	Remote holder	01
				59	APCCL-59	Counterweight 40kgs	10



## 4.1 Instruction for Use of Manual Counterbalance crane

Aardwolf Manual Counterbalance crane is designed to handle materials by human forces. Reading attentively the instructions provides the safety and security to the operator.

- Check the integrity of counterbalance cranes to ensure that it is in a good working order condition to handle the materials
- Lift up and adjust the length of extension boom to meet with the expected lifting position, using cylinder handle
- Connect two posts to base frame and lower down two support wheels for making a stable position for the extension boom and an easier and safer transportation.
- Adjust the counterweights so as to meet with the load weight (Refer to the Specifications of this manual to see the load capacity of counterbalance cranes at page ?), using a brake bar to adjust the moving frame and 20-kg counterweights
- Attach the load to the hook in a firm and secure manner, then move to the expected place.

## 4.2 Instruction for Use of Powered Counterbalance crane

Aardwolf Powered Counterbalance crane is designed to handle materials by means of a hydraulic power pump which is driven by a 12 v battery and a remote control with fourdirectional control function to adjust the extension boom. Reading attentively the instructions provides the safety and security to the operator. Attentively the instructions provides the safety and security to the operator.

- Check the integrity of counterbalance cranes to ensure that it is in a good working order condition to handle the materials.
- Use a remote control to adjust the extension boom to meet with the expected lifting position.
- Connect two posts to base frame and lower down two support wheels for making a stable position for the extension boom and an easier and safer transportation.
- Adjust the counterweights so as to meet with the lwoeaidght (Refer to the Specifications of this manual to see the load capacity of counterbalance cranes at page?), using a brake bar to adjust the moving frame and 20-kg counterweights.



# INSTRUCTIONS FOR USE

- Attach the load to the hook in a firm and secure manner, then move to the expected place.

## DOS AND DON'TS FOR OPERATION

Guidelines for operating the equipment:

- Always use the Counterbalance Crane on a firm level surface.
- Do not use counterbalance crane on a sloping surface due to the danger of the counterbalance crane moving or the load not being lifted correctly, i.e. off-center loads could cause structural damage to the equipment and possible injury to the operator.
- Always apply the brakes before commencing lifting operation.
- Do not move a crane with a high, suspended load. Cranes with a suspended load should only be moved with the suspended load just clear of the floor. Move the crane slowly and avoid sudden crane stops, which could cause the load to swing violently.
- Keeping the load close to the ground will help prevent lifting the load over the top of a person or persons.
- Do not exceed the safe working load of the Counterbalance Crane. Lifting the rated load capacity should be the norm; over lifting will result in a safety failure or equipment breakage.
- Do not leave a suspended load for long periods. Lower loads onto a Supporting Frame.
- The crane is designed to lift a material load and should never be used to move people.
- Always use the correct lifting tackle and Hooks.
- Always use certified lifting aids.
- Any modification to the Equipment or Hydraulic Pump/Ram will make this declaration of conformity invalid.
- A suspended load should only be lowered slowly and in a controlled manner.
- Do not allow any person to stand in such a position that the load could fall on them or cause a person injury.
- Do not use the Counterbalance Crane if any defect is observed, report to an authorized personnel.

**CAUTION: DO NOT MAKE ANY MODIFICATION TO THE EQUIPMENT OR HYDRAULIC PUMP CAUSING THE DAMAGE OF INTEGRITY OF COUNTERBALANCE CRANES.**



## 1. Recharging

Always recharge the battery after each use, normally recharge the battery when the capacity is less than 20% (percent in Indicator LED).

**Note:** Absolutely do not let the battery below 0%, if the battery capacity is too low compared to the allowed level will easily cause battery damage and can not be recharged.

Using the charger provided with the device, adjust the charging current at 20A, charging time about 8 hours.

### **Specifications charger adapter:**

Smart charger, auto switch off when the battery full, short circuit.

+ Input power: 220V 50Hz

+ Output voltage: 14.2V 20A

## 2. Storage

Storage Fully charge batteries before storing them. These batteries will self-discharge, so we recommend that they be recharged every 5 or 6 months. Batteries should be recharged prior to being placed back in service. Always store batteries in an climate-controlled environment without being exposed to extreme heat or cold. Avoid storage in exceedingly warm areas. Recommended operating temperatures are between 5 or 35 degrees C (maximum -15 to 50 degrees ).

## 3. Maintenance

MF (Maintenance Free) Batteries

Battery Information: 160G51R 12V 150Ah

Uses Lead – Calcium expanded grid technology which is strong, more resistant. to corrosion, overcharging, gassing, water consumption and self-discharge all of which shorten battery life in conventional lead acid batteries. Turbo plus MF batteries therefore have much longer life than most conventional batteries in the market. The batteries are perfectly sealed to prevent acid/ electrolyte/water leakage or loss and therefore do not require addition of battery water hence they are maintenance-free. The batteries are designed to provide high cranking performance upon starting hence able to start engines for more cycles, hence longer service life. The batteries are designed to fit both cold and tropical climates, thus your journey is assured across all climatic conditions.





## **(For powered counterbalance cranes only)**

This HMP comprise a single-phase motor, a center block through which a gear pump is driven, drawing hydraulic oil from the tank. General Technical Data:

- Maximum Flow..... 4.0LPM
- Maximum Working Pressure..... 172Bar
- Ambient Temperature..... Not exceeding 60°C
- Rating.....1.6kW
- Motor Voltage.....12 Volt
- Recommended Oil..... Hydraulic Oil (Grade 68)

The power pack is rated to IP54 and it is recommended that adequate protection be provided for outside usage.

### **• System check**

While operating, the Amp output from power supply should not exceed 150Amp. Ensure the system is running to its design capacity by fully loading the machine. Should the system pressure be higher than necessary, then the relief valve setting must be lowered. Should the system pressure be too low to allow full capacity, the relief valve setting can be increased.

**WARNING: THE RELIEF VALVE SETTING SHOULD NOT EXCEED THE MAXIMUM SYSTEM PRESSURE.**

### **Oil change – AFTER 100 hours**

To ensure long term performance, it is recommended that the oil is drained and replaced after the first 100 hours of use. This will ensure that any assembly contamination is removed.

### **Oil change – AFTER 3000 hours**

To maintain performance, it is recommended that the oil is drained and replaced after the first 3000 hours of use. This will ensure that any wear debris from the system is removed.





## Oil change – Yearly

To maintain performance, it is recommended that the oil is drained and replaced every year of operation. This will ensure that the oil cleanliness, viscosity and performance is maintained.

## Electrical connections – Yearly

To maintain the performance of the electrical connection, they should be checked and where necessary cleaned.

## Pump removal and replacement

1. It may not be necessary to remove the power pack from its location, but cleanliness must be maintained wherever this operation is carried out.
2. Disconnect electrical power supply.
3. Remove hydraulic connections and protect the ports from contamination
4. Drain tank thoroughly, by removing the drain plug and breather and flush with oil.
5. Remove the motor.
6. Remove nut from pump shaft. Lift off safety washer. Use suitable pullers to remove coupling half from pump shaft.
7. Remove the tank lid retaining bolts. Ease the lid from the tank.

**NOTE: THIS MAY REQUIRE DISMANTLING OTHER PARTS BEFORE TAKING OUT THE PUMP.**

8. Unscrew the suction assembly from the side of the pump.
9. Unscrew the pressure connections from the side of the pump.
10. Remove the two pump retaining screws and discard pump safely.
11. Clean suction strainer assembly in a suitable cleaning fluid to remove contaminants.
12. Fit suction assembly to the new pump in the correct orientation ensuring the suction filter is always below the oil level.
13. Replace pump coupling if damage.
14. Replace the pump and fix with the two new retaining screws.
15. Fit pressure connections, ensuring there are tight and any hoses are not twisted.
16. Refit lid assembly.
17. Refit motor.



## Motor Removal and Replacement

### - Removal:

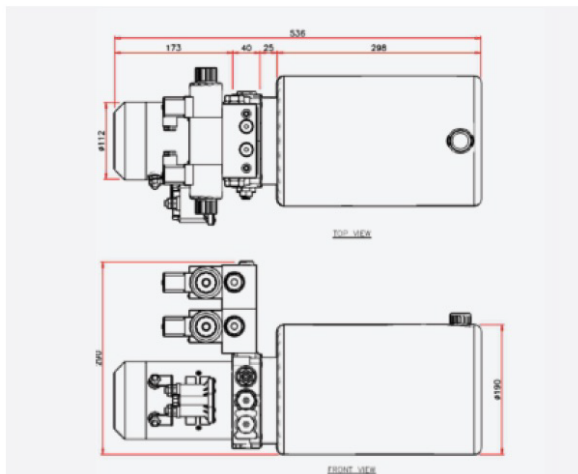
1. Disconnect electrical power supply.
2. Remove power connections from the motor, noting the polarity.
3. Unscrew and retaining screws that hold the motor.
4. Withdraw the motor from the assembly using suitable lifting equipment.
5. Beware of the actuator dislocated from the motor housing.

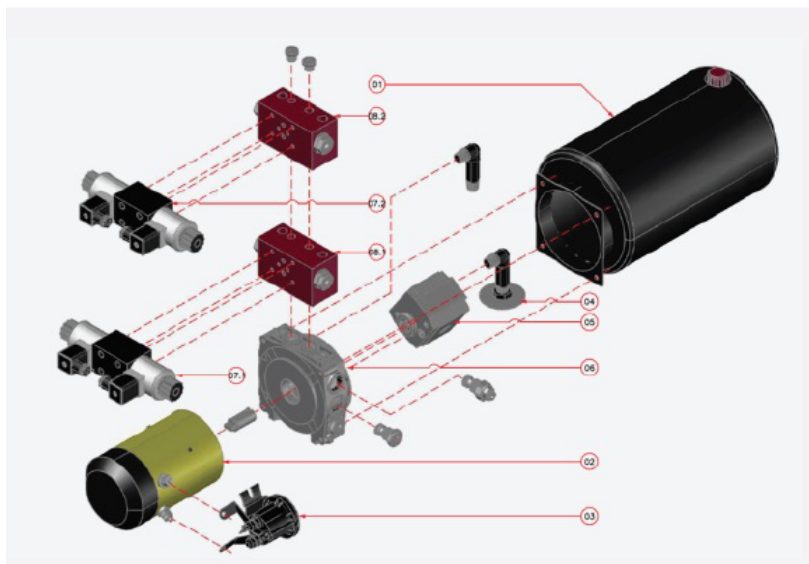
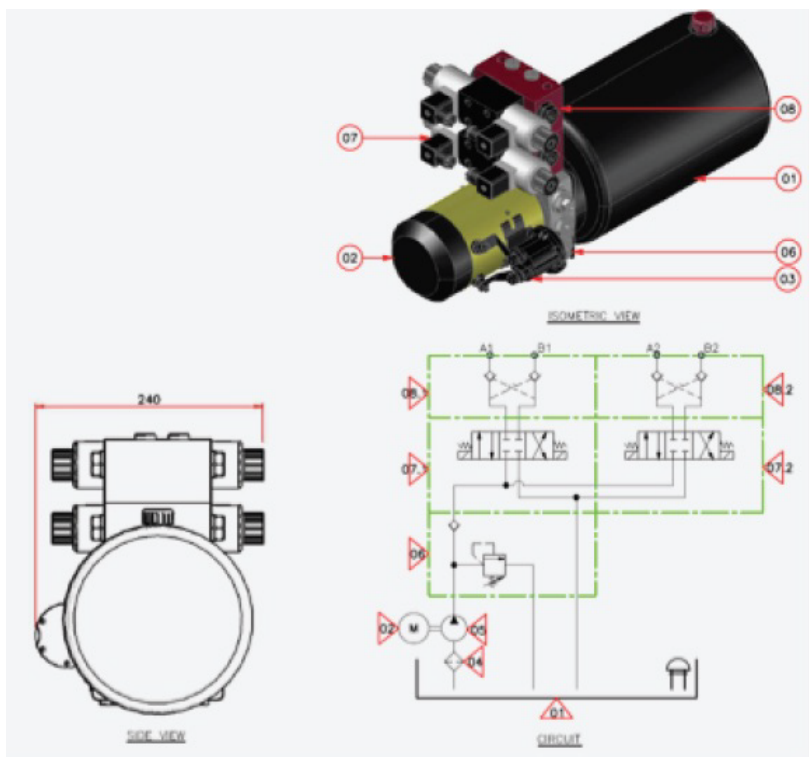
### - Replacement:

1. Clean coupling half
2. If replacing the motor half coupling, ensure the coupling is place properly.
3. Align the coupling of the pump to the motor half.
4. Lower the motor onto the center block.
5. Refi t the two retaining screws.
6. Refi t the power connections to the motor.

### • Spare part list of hydraulic pump

No.	Description	Specification	Brand	Qty
1	DC Motor	D116	Hydro-Tek	1
2	Starting Relay	T1	Hydro-Tek	1
3	Center Block	X01C	Hydro-Tek	1
4	Gear Pump	G016	Hydro-Tek	1
5	Tank	XR08(H)	Hydro-Tek	1
6	Suction Strainer	SF2	Hydro-Tek	1
7	Directional Valve	YA11	Hydro-Tek	2
8	Directional Sandwich Vale	BH4	Hydro-Tek	2





## 1. Testing

Safety checks must be made prior to the operation of the crane. Follow the guidelines listed below:

- Structural Soundness: Inspect the unit for damaged members and loose fasteners.
- Controls: Test for proper control operation.
- Repairs: Correct all observed defects and malfunctions before putting the unit into service.

**NOTE: FOR POWERED COUNTERBALANCE CRANES, IT IS COMPULSORY TO CHECK THE HYDRAULIC OIL SUPPLY AS THE CRANE IS IN A STORED POSITION, AND ALL CYLINDERS RETRACTED, CHECK THE OIL LEVEL.**

## 2. Maintenance

To prevent damage to the equipment, a daily, weekly, monthly, and quarterly PM should be established within your company to keep the equipment operating at maximum levels. Follow all safety practices before undergoing maintenance on your equipment.

- Set the brakes and lower the crane to a resting position.
- Perform your company's designated personnel on the equipment.
- Replacement parts are available through Aardwolf.
- Any worn or broken parts should be replaced at this time. In addition, to better service your crane, you may find it helpful to follow these guidelines:
- Identify (knowing what the problem is generally helps you find the solution).
- Trouble shooting: Identify and determine the cause of the problem.
- Repair or replace the worn items depending on which solution is the most cost effective for your repair.
- Do (make the necessary repairs and or adjustments).



- Check (function all operations of the equipment to ensure that all components are working properly).
- Put the crane back into service.

## 3. Inspections

### • Daily Inspection

Before going to the job site each day, a visual inspection of the following will help prevent unnecessary maintenance:

- All fluid levels are within the tolerances set by the manufacturers.
- Evidence of broken structural components such as welds and loose fasteners.
- Leaking cylinder seals.
- Oil leaks at the engine, pump, and hydraulic reservoir.
- Excessive wear to the counter balance valves to ensure the crane load will not be compromised.
- All safety devices are in place, in good working order and legible.

### • Weekly inspection

This inspection should be a routine and often easy inspection if daily inspections are being completed by competent personnel.

- General inspection of lubrication capacities for the cylinder and levels.
- General inspection of all crane components for wear and tear.

### • Monthly Inspection

Establish a set time every month within which the monthly inspections will occur. The inspection should occur at the same time every month.

- Check the entire crane, hydraulic reservoir and cylinder on the crane.
- Lubrication levels are within specifications set by the manufacturer.
- Inspection of the crane hook and safety latch for wear and tear.



## • Quarterly Inspection

This inspection should include, but not be limited to, the following:

- Any loose bolts on the crane body.
- The hydraulic system pressures to the cylinders, main block assembly, and cartridges.
- Lubrication of the pivot points of the crane such as the bearings, cylinders, and shafts.
- Wear and tear of the hydraulic hoses such as fraying, crushing and leaks.
- Both the lift cylinder and the extend cylinder for leaks, drifting of the cylinders, and any damage external of the cylinders.
- Check entire structure of the crane for broken welds, worn fasteners and missing fasteners.
- All safety devices are in good working condition and legible.
- Replacement of any non-conforming issues.

## • Minimum weight required for counterbalance cranes

The counter-weight serves to balance the crane when it's lifting anything. Without the right balance, a crane will lose its stability. To avoid this, the operator must know and understand the principle of the 'counterweight'. Refer to the Specifications of this manual on page? for lift limitations.

Counter weights are removable for transport making the crane much lighter. To make the crane easier to handle the chassis is a telescopic design. For heavier loads the counterweight is manually extended backwards. Again refer to Specifications of this manual on page?

**WARNING: NO OF FACTORY SUPPLIED 10x20KG COUNTERWEIGHTS ARE REMOVED DURING OPERATION.**



## 1. Warranty

After receiving the goods, it is strongly recommended to the buyer to check for sure, based on the spare part list and spare drawing attached with the goods, that the spare parts has not been damaged or lost during shipment. Any damages or losses must be officially claimed to Aardwolf Industries LLC's within 8 days since the date of goods receipts. This handler is granted a 12-month warranty based on Aardwolf Industries LLC's warranty policy since the date of purchase.

The warranty coverage is not applicable:

- The clamp is handled incorrectly during manoeuvring.
- The operator fails to comply with the instructions in this booklet.
- The clamp's maximum permissible capacity is exceeded.
- The specifications for slab thickness are not followed.
- Damages are due to inadequate maintenance and inspections.
- Damage is due to improper storage.
- Repairs were performed by the user without our permission.
- Non-original spare parts were used.

## 2. Disclaimer

Aardwolf Industries LLC's warranty does not cover the incorrect assembly and misuse of counterbalance cranes, the lack of maintenance and repair of lifter as scheduled by the manufacturer, the operation carried out by non-competent or non-permission operator or non-original spare parts used or installed.

