

# CONQUEST ATTACHMENTS

## CA1650 FORWARD PLATE COMPACTOR OPERATOR'S MANUAL

Serial #: \_\_\_\_\_

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## SAFETY INSTRUCTIONS FOR PLATE COMPACTORS

### SAFETY

- Plate compactors must only be operated by person who:
  - \* is at least 18 years old;
  - \* is physically and mentally fit for this job;
  - \* may be expected to carry out the job he's charged with carefully.
- Plate compactors must only be used for compaction jobs observing safety and operating instructions.
- People who work with plate compactors must know everything regarding safety instructions.
- Do not take drugs or drink alcohol before using plate compactors.
- Always wear appropriate protective clothes (ear protections, gloves, protecting shoes and helmet).
- Do not alter the operation devices of the plate compactor.
- Do not leave control elements during compaction.
- Store the compactor with engine off in a safe place.
- Always refill fuel tank when the engine is off. Do not allow fuel to come into contact with the hot parts of compactor and engine.
- Do not smoke when using compactor. Keep the compactor out of open flames.
- Always check fuel tank cap. If there is a fuel cock, shut it off when the engine is not working.



#### **WARNING**

*If fuel tank leaks, replace it immediately: A fuel tank in bad conditions could explode.*

- Do not use the compactor in places where there are gaseous exhalations.
- Do not use the machine indoors or in an enclosed area unless inadequate ventilation.
- When the work area is near slopes, the compactor could turn over.
- When you use compactor in reverse and in a narrow place, the operator must be sideways from the handle in order to avoid stumbling.
- Always operate in safe conditions in order to avoid accidents.
- Always operate in maximum stability conditions.
- Use transport wheels only for movements in yard. In all the other situations they must be removed.
- Always make sure of the proper functioning of the safety and control devices.
- If there are any problems, immediately stop the machine and inform the person responsible of the job.

### TRANSPORT AND LIFTING

- Do not lift or transport the compactor when it is running.
- Check that lifting points are not damaged.

- For loading and unloading the compactor, appropriate lifting gear is necessary and must be used on the lifting points.
- Be sure that the ramps are fixed and check the tolerable weight in order to avoid turnovers.
- Tie the machine on vehicle to prevent sliding or tipping over.
- For long transports, empty the fuel tank completely and close it.

**WARNING**

*Do not lift or hook the plate compactor by the handle.*

**MAINTENANCE**

- Use original spare parts only.
- Do not alter the operation devices of plate compactor.
- Do not turn the engine on without air filter.

**WARNING**

*Modifications in this machine are subject to the express approval of Conquest Attachments. In case of non-observance, Conquest will refuse all liabilities and all warranties.*

- Do not make maintenance operations when machine is running or when engine is on.
- As soon as maintenance and repair jobs have been completed, all safety devices must be properly reinstalled.

**PERIODIC MAINTENANCE**

Regular maintenance is required for a good performance of the compactor.

**FIRE**

In the case of a fire in the machine, use an AB class powder extinguisher if possible.

**RESIDUAL RISK**

Plate compactors are designed for absorbing a large part of machine vibrations.

Depending on the operation, the ground conditions and exposure time, the recommended limits for hand-arm vibrations may be exceeded.

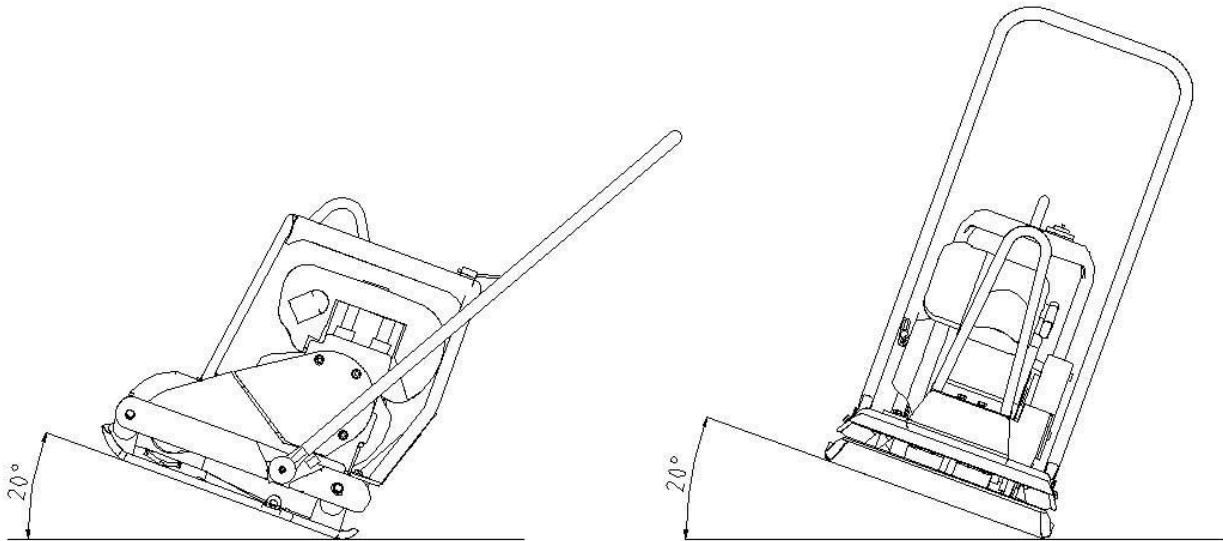
**WARNING**

*Do not use the machine on grounds already compacted.*

Prolonged exposure to vibrations could cause injury to your hands or wrists. If you feel severe discomfort or pain, do not use the machine and consult a doctor before resuming work.

Prolonged exposure to loud noises without adequate ear protection could cause permanent hearing damage.

## MAX INCLINATION



## FUNCTION

The vibration required for tamping is produced by the exciter which is on the compacting plate.

The engine starts the exciter and the torque is transmitted by the centrifugal clutch and by the belt.

In order to allow the idling of the drive engine, the centrifugal clutch, at low engine speeds, interrupts the flow of power to exciter. The compactor must always be used with the gas handle in the "OPERATIVE" position.

The engine supporting and the compacting plates are connected by 4 shock mounts, which are mounted to avoid vibrations reaching the operator.

## APPLICATIONS

The CA1650 compactor is suitable for asphalted road maintenance, small tamping garden jobs. Only use the machine for the purpose for which it is intended.

## OPERATION

### CHECKS BEFORE STARTING

- Before using compactor, carefully read instruction manual.
- Engine oil level  
Check oil level using the proper dipstick. If necessary, refill with SAE 15 W 40 oil.
- Air filter  
Check that air filter is clean and in good condition. Clean or replace it if necessary.
- Fuel  
Never use oil/gasoline mixture or dirty fuel. Avoid getting dirt, dust or water into fuel tank. Refuel avoiding leaks on engine.

### ENGINE STARTING (MANUAL)

- Open the fuel valve.
- Move the throttle lever to 3/4 position.
- Turn the choke lever (if present).
- Turn the engine switch to the ON position.
- Pull the starter grip lightly until resistance is felt, then pull briskly.

*Pull hand crank until it starts, in order to avoid counterblows*

- As the engine warms up, gradually move the choke lever (if present).
- Warm up the engine at the minimum speed for some minutes.
- The compactor will start moving when the throttle lever is in operative position.

### ENGINE STOPPING (MANUAL)

- Move the throttle lever to the minimum position. Warm up the engine at the minimum speed for some minutes.
- Turn the engine switch to the OFF position.

**WARNING**

*Never operate the engine switch when the engine is at the maximum speed.*

- Turn the fuel valve to the OFF position.

**ENGINE OIL**

- Check oil level using the proper dipstick. Refill with SAE 15 W 40 oil if necessary.

## Oil change

- Drain oil at warm engine.
- Refill with SAE 15W40 oil.

**WARNING**

*Only use oil with characteristics advised by the manufacturer engine (see engine book).*

**AIR FILTER (DRY)****WARNING**

*Clean air filter daily in order to avoid engine damages.*

- Open air cleaner and remove element.
- Lightly and repeatedly tap the element on a hard surface to eliminate all excess dirt.
- Clean the element.
- Refit the air filter. Do not run the engine without the air filter.

**AIR FILTER (OIL BATH)****WARNING**

*Clean air filter daily in order to avoid engine damages.*

- Open air cleaner and remove upper element.
- Wash the upper filtering element with soap and water.
- Clean the upper bowl.
- Remount the upper filtering element.
- Remove the lower filtering element.
- Clean and dry filtering element.
- Drain and clean bowl.
- Fill with engine oil up to level mark.

- Reassemble air cleaner.

**WARNING**

*Never use gasoline or low flash point solvents for cleaning the air filter to avoid fire and explosions.*

**OPERATION**

Always run the engine at the full throttle setting. This has been set at the factory and the setting has been sealed. Tampering with the throttle settings will void the warranty. Operating at low RPM can overheat the clutch and operating above factory set RPM can damage the exciter.

Never operate the unit on hard surfaces or over-compacted areas as this can damage the machine. Compaction tests should be done during operations to ensure the ground is not being excessively compacted beyond specification.



Do not disperse oil, batteries, fuel and dangerous substances in the environment, as they have high pollution power.





**TROUBLESHOOTING**

TROUBLE	POSSIBLE CAUSE	SOLUTION
The engine works properly but the machine does not vibrate	The transmission belt is broken	Replace the belt
	The wear and tear has caused the belt to loosen up	
	The centrifugal clutch has broken	Replace the centrifugal clutch
Reduced or irregular speed	The engine rpm is not correct	Verify that during compaction gas lever is in "OPERATIVE" position
	The transmission belt has loosened up	Reset the number of engine rpm
		Tension the transmission belt and, replace if necessary
The engine rpm are low but the exciter does not stop	Centrifugal clutch malfunction	Repair the centrifugal clutch and, replace if necessary
The exciter heats up to over 90° (bath oil only)	There is too much oil in the exciter	Top up the oil level. Check whether the oil seal has been damaged; replace if necessary
The engine works with difficulty and the exciter is too noisy and it stops or slows down	Mechanical block of the exciter (bearings, shaft)	Remove the element causing the failure or, if necessary, replace the exciter
The engine turns off or does not work properly	Fuel tank empty	Add fuel
	Oil lack	Add oil
	Dirty air filter	Clean air filter, replace if necessary
	Engine damaged	Contact an engine service center

**LUBRICATION**

	Model	Quantity	Type
Exciter	CA1650	Dry Exciter	-----
Engine	All models	See engine instructions	SAE 15W40

**ENGINE / EXCITER REVS**

Model	Engine	Exciter
CA1650	3500 – 3550	5350 – 5400



**WARNING**

*Set the rpm as per the above table. A different rpm will not make the compactor working properly and could break it. If the set rpm is changed, the warranty will not be recognized.*

## TECHNICAL DATA

Model	CAR1650		CAH1650
Dimensions plate Width x Length	mm 500 x 560		
Operating weight	With Lifting Hook	With Rollbar	With Rollbar and Water Tank
CAH1650	kg 88	kg 89	kg 91
CAR1650	kg 87	kg 88	kg 90
Working speed	25 m/min		
Max climbing ability	20 %		
Frequency	90 Hz		
Centrifugal force	16 kN		
Transmission	Centrifugal clutch / belt		
Engine	Air-cooled single-cylinder 4 stroke		
	Subaru EX 16		Honda GX 160
Engine power	kW 3,4 (HP 4,5)		kW 3,6 (HP 4,8)
Displacement	126 cm <sup>3</sup>		163 cm <sup>3</sup>
Fuel	Petrol		
Fuel consumption	1,4		1,4
Fuel tank capacity	2,7 ltrs		3,1 ltrs

### SOUND MEASUREMENTS

The product has been produced in accordance with the standard 2000/14/CE, procedure I annex VI. Measured sound power level **99** [dB(A)] and guaranteed sound power level **103** [dB(A)] on a significant equipment.

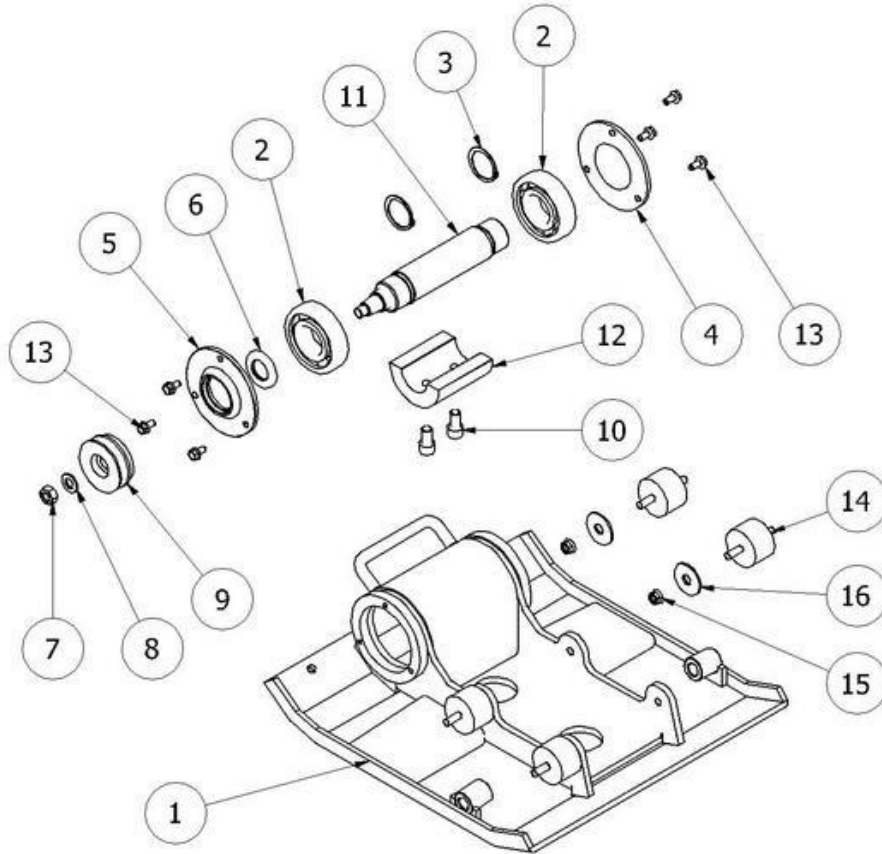
### VIBRATION MEASUREMENTS

Products are tested for hand/arm vibration level in accordance with annex D prEN500-4:2001  
The hand/harm vibration level is **9,2** m/s<sup>2</sup>

The plate compactor has been tested on a "macadam" surface, produced with not cleaned stone crusher grit, with 16 mm medium diameter (with components which have diameter that goes from 10 to 20 mm).

EXPANDED VIEW

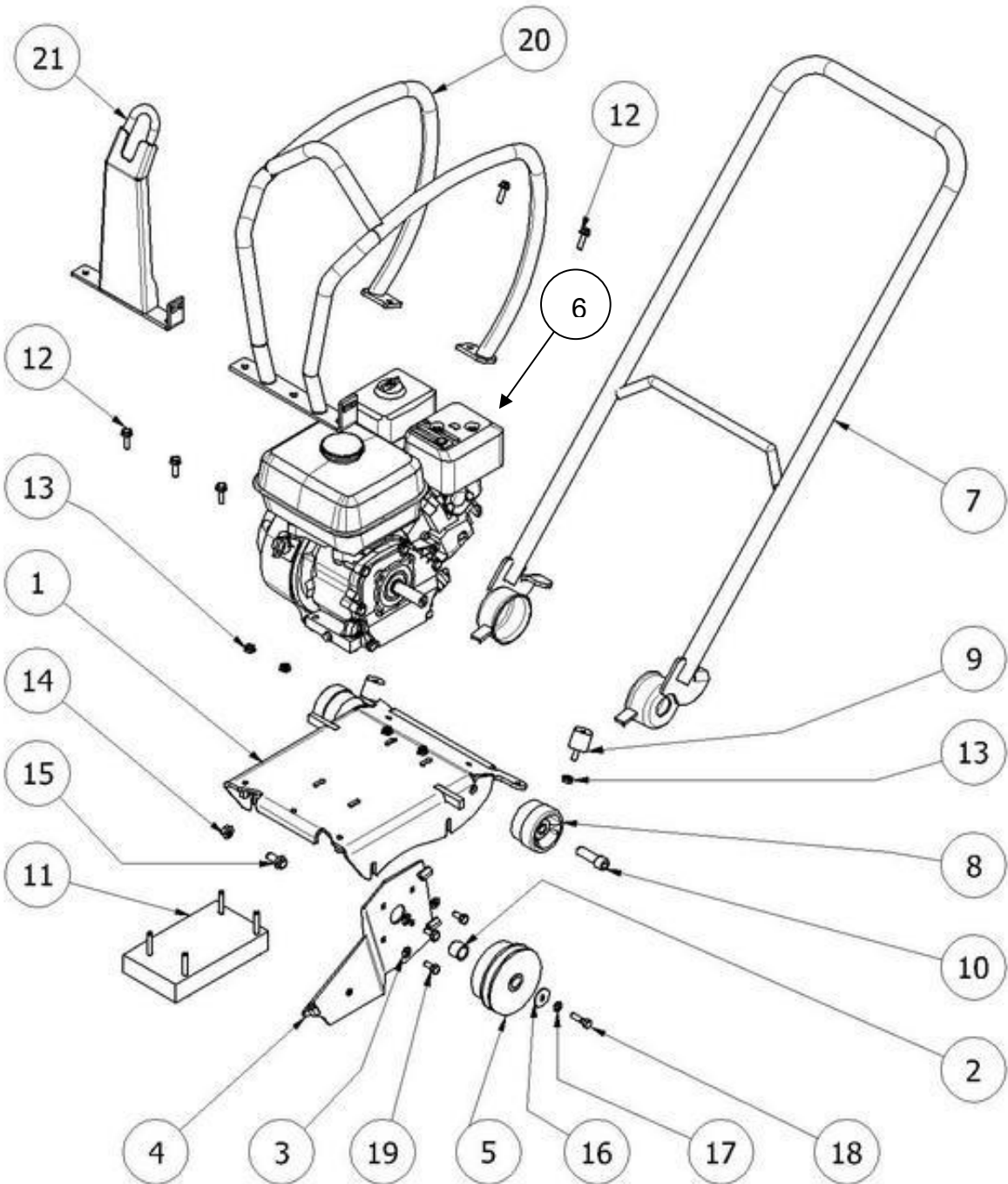
EXCITER – BASE PLATE



## EXCITER – BASE PLATE

POS	CODE	DESCRIPTION	QTY
1	560132	BASE PLATE CA1650	1
2	151106	BEARING NSK 6309 2RS C3 VV	2
3	151102	SEEGER E45 UNI 7435	2
4	560071	CLOSED EXCITER COVER	1
5	560068	OPENED EXCITER COVER	1
6	131043	OILSEAL 30X55X7 BA	1
7	151456	NUT M14 UNI5588	1
8	151472	WASHER. M14 UNI 6592 ZN	1
9	560148	EXCITER PULLEY	1
10	151114	SCREW M14X25	2
11	560090	EXCITER SHAFT	1
12	560167	16 KN WEIGHT CA1650	1
13	152040	SCREW FLG DIN 6921 M8X16 8.8 ZN	6
14	131104	SHOCKMOUNT MM D57X37 M10X25 60 SH	4
15	151904	FLANGED NUT DIN 6923-M10	4
16	151154	WASHER M14X48	4

ENGINE SUPPORT

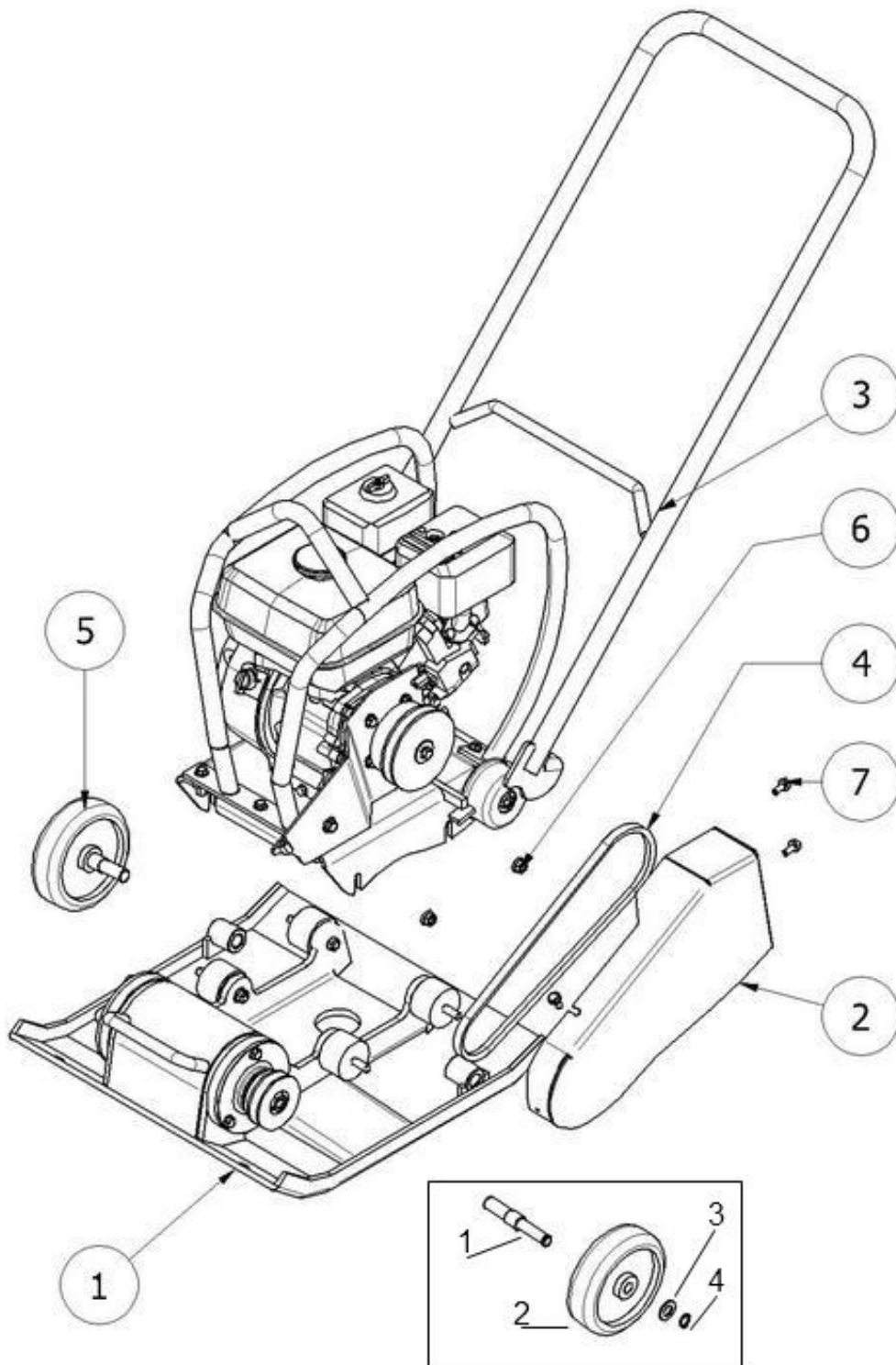


## ENGINE SUPPORT

POS	CODE	DESCRIPTION	QTY
1	560168	ENGINE SUPPORT	1
2	560149	PULLEY SPACER FOR ENGINE SUPPORT	1
3	151199	WASHER M 8 UNI 6592 ZN	4
4	560184	BELT PROTECTION HOLDER	1
5	152286	CENTRIFUGAL CLUTCH 19,05 IORI	1
6	181139	HONDA ENGINE GX 160	1
6	182273	SUBARU ENGINE EX 13	1
7	560176	HANDLE	1
8	560037	HANDLE SHOCKMOUNT DIAM. 75 - 50 SH	2
9	131927	SHOCKMOUNT PM 30X20 M8X23 60 SH	2
10	151359	SCREW TCEI M14X 45 12.9 UNI 5931	2
11	560152	WEIGHT FOR ENGINE SUPPORT	1
12	152038	SCREW TE FLG M8X25 8.8 ZN	5
13	151123	FLANGED NUT DIN 6923-M8	6
14	151904	FLANGED NUT DIN 6923-M10	1
15	152037	SCREW TE FLG M10X25 8.8 ZN	1
16	152192	WASHER M8X32	1
17	151807	CONTACT WASHER 8(8.2X18X1.4)ZN	1
18	151122	SCREW TE 5/16-24 UNF -1"1/4 UNF	1
19	151309	SCREW TE 5/16-24X3/4" 8.8 UNF	4
20	560169	ROLLBAR FOR WATER TANK	1
21	560198	LIFTING HOOK	1



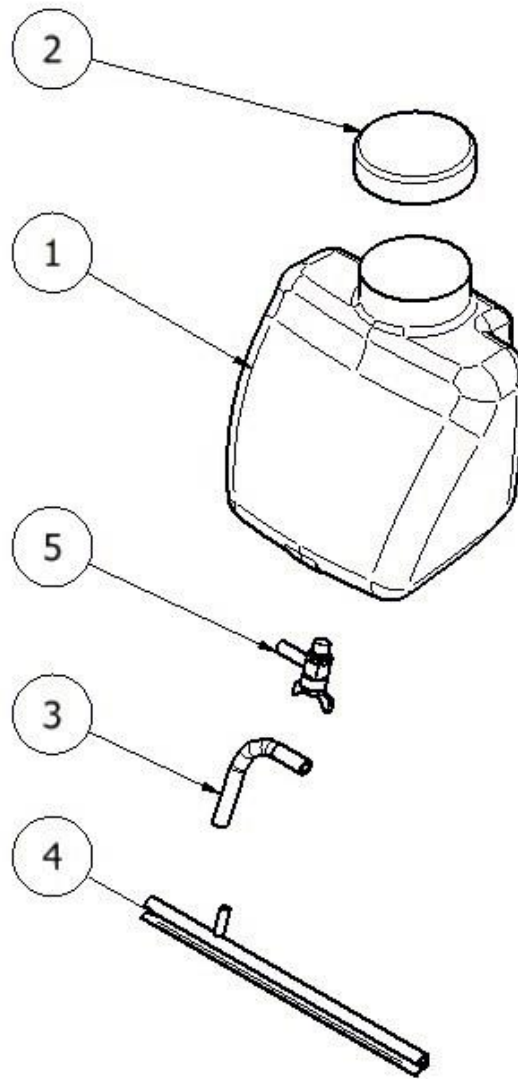
VIBRATORY PLATE



VIBRATORY PLATE

POS	CODE	DESCRIPTION	QTY
1	-----	COMPL. BASE PLATE CA1650	1
2	560180	BELT PROTECTION	1
3	560154	ASSY ENGINE SUPPORT	1
4	131030	BELT A33	1
5	560203	WHEEL WITH AXLE	2
6	151904	FLANGED NUT DIN 6923-M10	4
7	152040	SCREW FLG DIN 6921 M8X16 8.8 ZN	3
1	560036	AXLE	2
2	131212	WHEEL	2
3	151472	WASHER	2
4	151816	SEEGER	2

WATER TANK



WATER TANK

POS	CODE	DESCRIPTION	QTY
1	132062	WATER TANK	1
2	132254	WATER TANK CAP	1
3	132205	RUBBER HOSE	0,15 mt
4	560190	SPRINKLING PIPE CA1650	1
4	560145	SPRINKLING PIPE CA1650 (valid until 31/12/12)	1
5	152276	WATER VALVE GAS RB9085 3/8-8	1
6	560175	NUT GAS 3/8 H15 CH 27 ZN (INSIDE WATER TANK)	1

## WARRANTY

This Conquest Attachments product is warranted to be free from defects in workmanship for three years from the date of purchase. Warranty is void on products and components that have been modified or repaired without the prior consent of Conquest Attachments.

Engine warranty is exclusively granted from authorised engine service centres and is separate from the machine warranty. You can find the list of approved centres, on the websites of the manufacturers or this can be requested from Conquest Attachments.

Conquest Attachments warranty does not cover damage from misuse, accidents, lack of service, or negligence or damage to the attachment or surrounding environment.

Claims are limited to replacement parts. In some cases a reasonable labour amount may be considered. Warranty does not cover service mileage, freight, downtime or replacement of attachment. Factory replacement parts must be used.

## WARRANTY PROCESS

1. Contact Conquest Attachments to request a Warranty Claim Form.
2. Once Warranty Claim Form is received along with pictures, Conquest Attachments will evaluate for repair.
3. RGA number will be assigned and replacement part sent prepaid, ground freight and invoiced.
4. Defective parts need to be returned prepaid to Conquest Attachments for warranty consideration. Upon inspection, account will be credited for defective part.



**Conquest Attachments**

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