



## Operator's Manual

### Ride-On Power Trowel

**CRT836 Series**

**CRT846 Series**



Manufacturer

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Original instructions

This Operator's Manual presents the original instructions. The original language of the Operator's Manual is English.

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## **Foreword**

This manual contains important instructions for this machine. These instructions must be followed during installation, operation, and maintenance of the machines.

This manual provides information and procedures to safely operate. For your own safety and to reduce the risk of injury, carefully read, understand, and observe all instructions described in this manual.

We reserves the right to change any of the contents in this manual without notice.

## **Warranty**

Our products are covered by warranty for a period of twelve (12) months from the date of purchase against defects in material or workmanship provided that:

- The product concerned has been operated and maintained in accordance with the operating instructions.
- Has not been damaged by accident, misuse or abuse.
- Has not been tampered with or repaired by any unauthorized person.

Any evidence of failure to meet these conditions may result in a denial of the warranty claim.

The owner is responsible for the cost of transportation to and from the authorized repairer and the unit is at the owners risk while in transit to and from the repairer.

Impact damage is not covered under warranty. Clutches are not covered under any warranty.

Engines are officially guaranteed by engine manufacturer. Please refer to the annex for engine warranty.

# Table of Contents

<b>Foreword</b>	<b>3</b>
<b>Warranty</b>	<b>3</b>
<b>1. SAFETY INFORMATION</b>	<b>5</b>
1.1 Operating Safety	5
1.2 Operator Safety while using Internal Combustion Engines	6
1.3 Label Locations	7
1.4 Safety and Operating Labels	8-9
<b>2. OPERATION</b>	<b>10</b>
2.1 Control	10-11
2.2 Preparing the Machine for First Use	12
2.3 Before Starting	12
2.4 To Start	12
2.5 To Stop	13
2.6 Operation	13
2.7 Steering	13
2.8 Pitch Adjustment	13
<b>3. MAINTENANCE</b>	<b>14</b>
3.1 Periodic Maintenance Schedule	14
3.2 Trowel Gearbox	14
3.3 Lubrication	15
3.4 Transporting Trowels	15
3.5 Trouble Shooting	16
<b>4. TECHNICAL DATA</b>	<b>17-18</b>
<b>EC DECLARATION OF CONFORMITY</b>	<b>19</b>

# 1. SAFETY INFORMATION

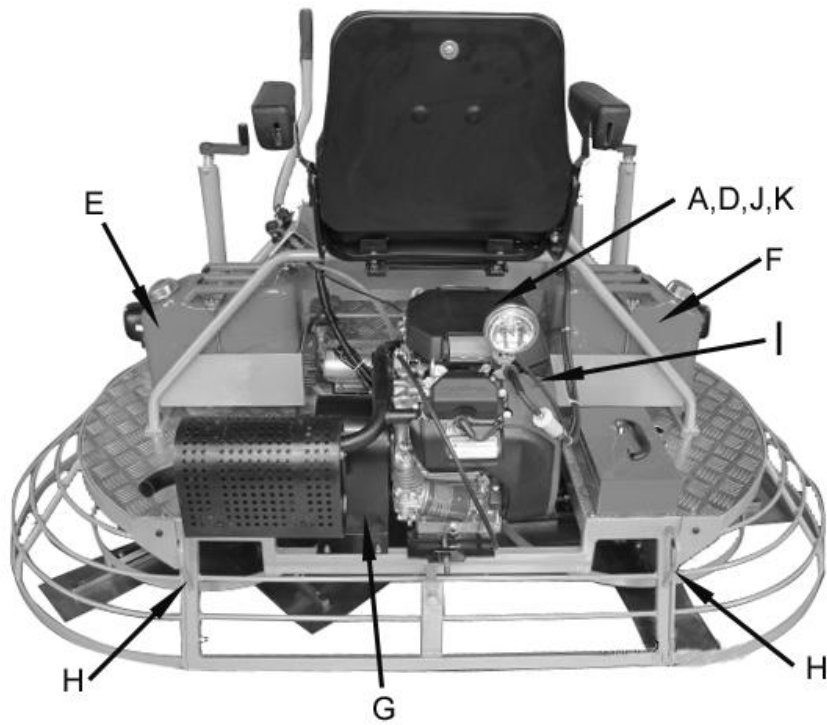
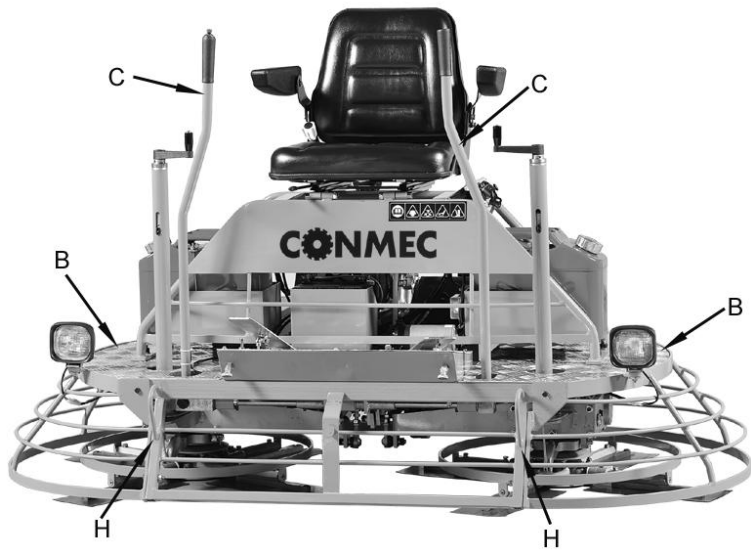
## 1.1 Operating Safety

- Only trained personnel are permitted to start, operate, and shut down the machine. They have received instruction on how to properly use the machine and are familiar with required safety devices
- The machine must not be accessed or operated by children and people impaired by alcohol or drugs.
- NEVER operate this machine in application for which it is not intended.
- NEVER allow anyone to operate this equipment without proper training. People operating this equipment must be familiar with the risks and hazards associated with it.
- NEVER operate the machine with the beltguard missing. Exposed drive belt and pulleys create potentially dangerous hazards that can cause serious injuries.
- DO NOT allow anyone to stank or lean on the unit during operation.
- Do not run the machine indoors or in an enclosed area such as a deep trench unless adequate ventilation, through such items as exhaust fans or hoses, is provided. Engine exhaust contains carbon monoxide. This is a poison you cannot see or smell. Exposure to carbon monoxide can cause loss of consciousness and CAN KILL YOU IN MINUTES.
- Do not operate the machine with unapproved accessories or attachments.
- ALWAYS Keep the safety stop switch system in adjustment and good operating condition at all times. Do not operate the trowel if it does not work properly. Out of control Trowels can cause serious personal injury and damage to fresh concrete surfaces. This system will automatically stop the unit if the operator loses control of it during operation.
- ALWAYS make sure the safety stop switch is disengaged (lever in the down position) before starting the unit. Keep one hand firmly on the handle while starting and do not let go of the handle during operation.
- ALWAYS wear protective clothing appropriate to the job site when operating the machine.
- ALWAYS close fuel valve on engines equipped with one when machine is not being operated.
- ALWAYS store the machine properly when it is not being used. The machine should be stored in a clean, dry location out of the reach of children.
- Read, understand, and follow procedures in the Operator's Manual before attempting to operate the machine.

## 1.2 Operator Safety while using Internal Combustion Engines



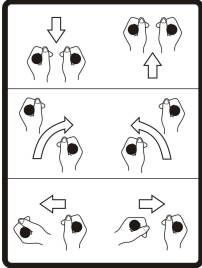


- DO NOT smoke when refueling the engine or during any other fuel handling operation.
- DO NOT refuel a hot or running engine.
- DO NOT refuel the engine near an open flame.
- DO NOT spill fuel when refueling the engine.
- Do not touch the engine or muffler while the engine is on or immediately after it has been turned off. These areas get hot and may cause burns.
- If fuel is spilled during refueling, wipe it off from the engine immediately and discard the rag in a safe place. Do not operate the unit if fuel or oil leaks exist-repair immediately.
- NEVER operate this equipment in an explosive atmosphere.
- NEVER operate any gas powered equipment in a poorly ventilated or enclosed area.
- NEVER perform any work on the unit while it is running. Before working on it, stop the engine and disconnect the spark plug wire to prevent accidental starting.
- Avoid prolonged breathing of exhaust gases.
- Avoid contact with hot exhaust systems and engine parts.
- Allow engine to cool before performing any repairs or service.
- ALWAYS transport and handle fuel only when contained in approved safety containers.
- ALWAYS keep the area around the muffler free of debris such as leaves, paper, cartons, etc. A hot muffler could ignite the debris and start a fire.

### 1.3 Label Location



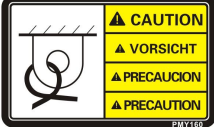
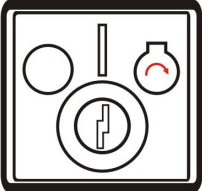


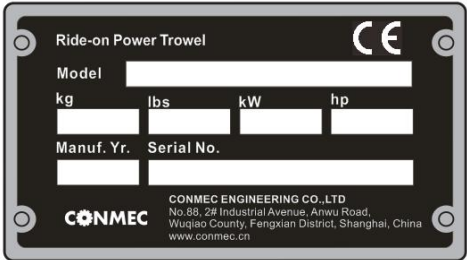


## 1.4 Safety and Operating Labels

CONMEC machines use international pictorial labels where needed. These labels are described below:

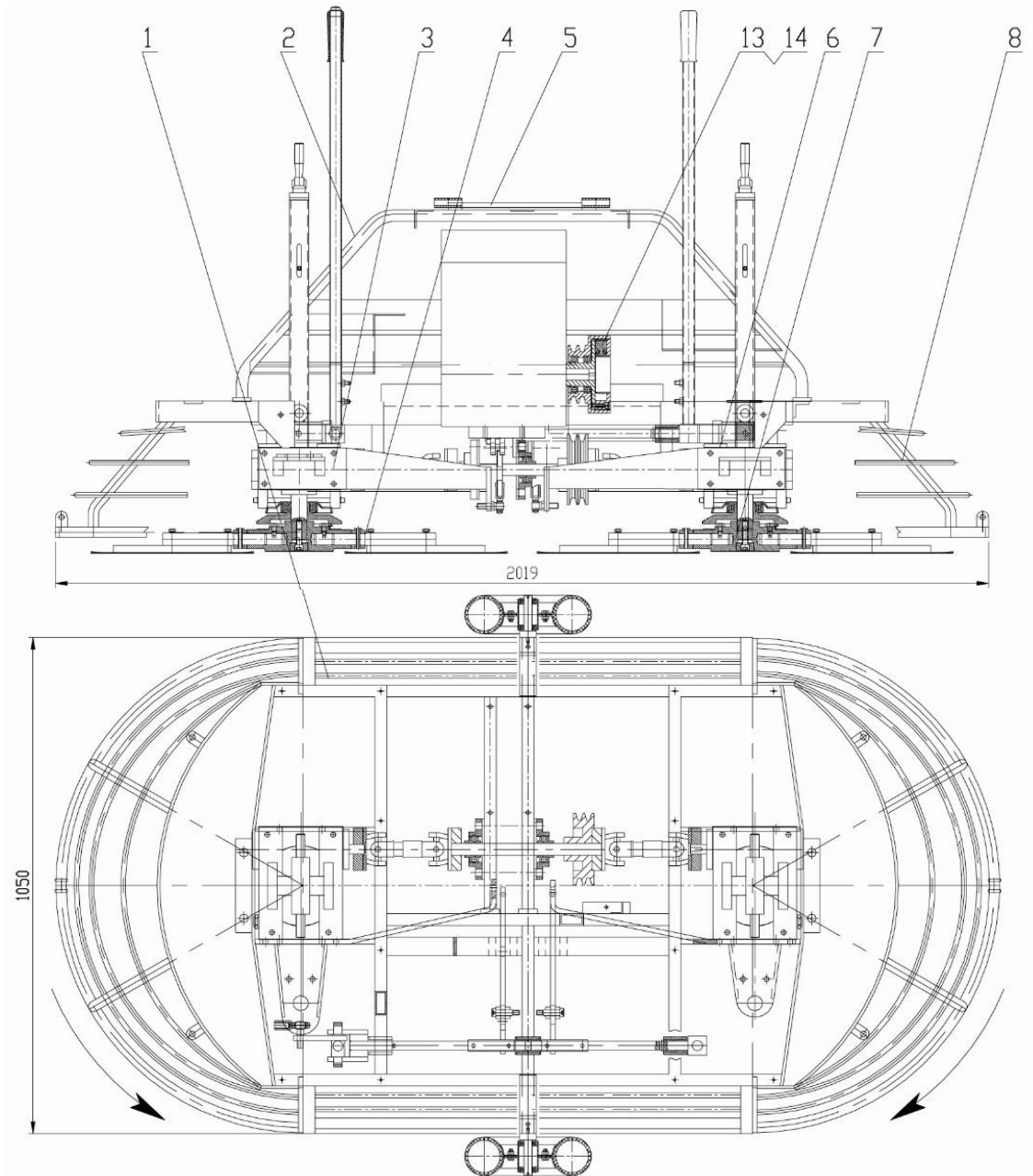
Ref.	Label	Meaning
A		<p><b>DANGER!</b> Engines emit carbon monoxide; operate only in well-ventilated area. Read the Operation Manual for machine information. No sparks, flames, or burning objects near the machine. Shut off the engine before refueling. Use only clean, filtered unleaded gasoline.</p>
B		<p><b>WARNING!</b> Cutting hazard. Always replace blade guard!</p>
C		<p>Steering control. Refer to section Steering.</p>
D		<p><b>WARNING!</b> Always wear hearing and eye protection when operating this machine.</p>
E		<p>Water tank fill. Use only clean water or water-based retardants.</p>

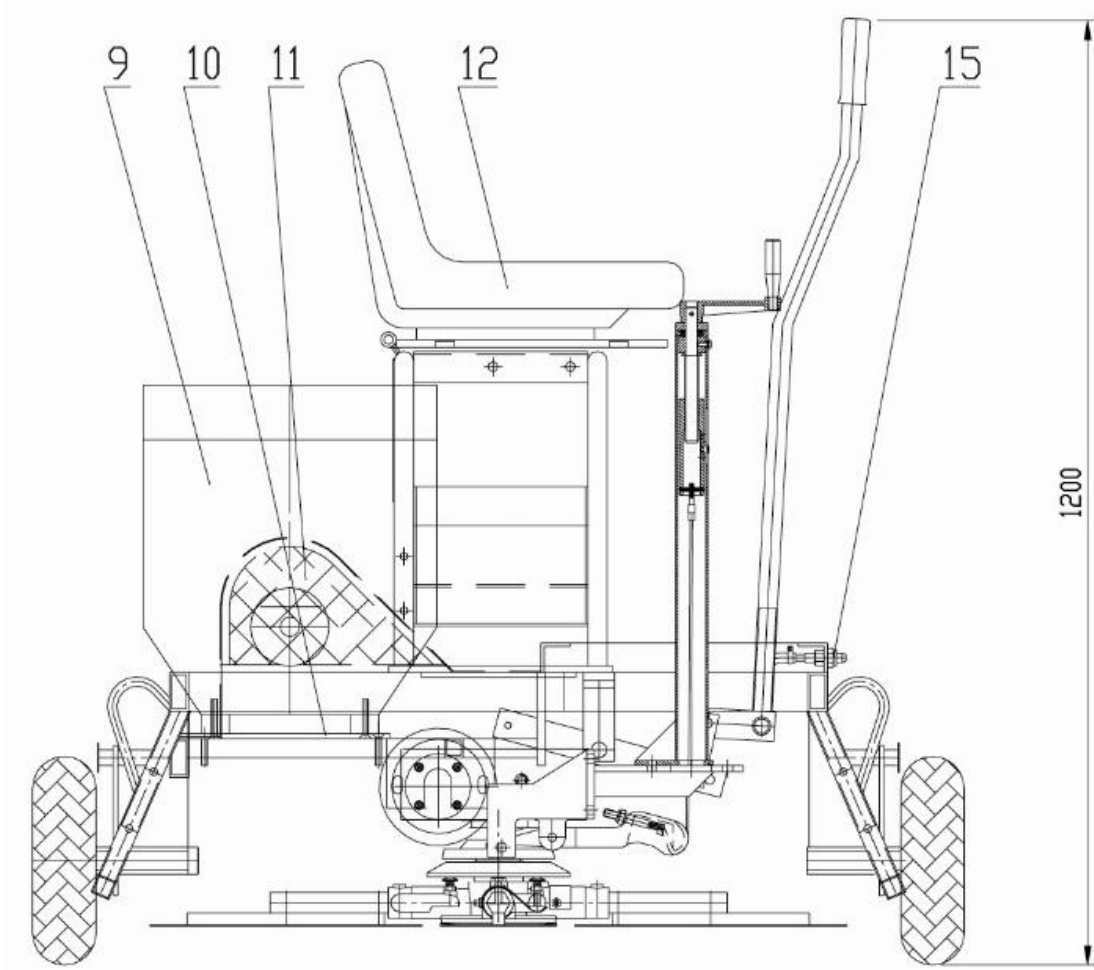


Ref.	Label	Meaning
F		<p>CAUTION! Check the fuel. Use only clean, filtered gasoline fuel.</p>
G		<p>WARNING! Hand injury if caught in moving belt. Always replace belt guard.</p>
H		<p>CAUTION! Tie-down point.</p>
I		<p>Key switch, engine start: Off On Start</p>
J		<p>WARNING! Hot surface!</p>
K		<p>WARNING! Read and understand the supplied Operator's Manual before operating the machine. Failure to do so increase the risk of injury to yourself or others.</p>
		<p>A nameplate listing the model number and serial number is attached to each unit. Please record the information found on this plate so it will be available if the nameplate lost or damaged. When requesting service information, the serial number should be specified of the unit.</p>

## 2. OPERATION

### 2.1 Controls





Ref. No.	Description	Ref. No.	Description
1	Machine Frame	9	Engine
2	Operator's Seat Bottom	10	Engine Mounted Plate
3	Right Gearbox Assy.	11	Belt Guard
4	Right Trowel Arm Assy.	12	Guard Ring
5	Chain Bottom	13	Clutch
6	Left Gearbox Assy.	14	Belt
7	Left Trowel Arm Assy.	15	Sprinkle System
8	Guard Ring		

## 2.2 Preparing the Machine for First Use

- 2.2.1 Make sure all loose packaging materials have been removed from the Machine.
- 2.2.2 Check the machine and its components for damage. If there is visible damage, do not operate the machine! Contact our dealer immediately for assistance.
- 2.2.3 Take inventory of all items included with the machine and verify that all loose components and fasteners are accounted for.
- 2.2.4 Attach component parts not already attached.
- 2.2.5 Add fluids as needed and applicable, including fuel, engine oil, and battery acid.
- 2.2.6 Move the machine to its operating location.

## 2.3 Before Starting

New Ride-on Power Trowel has been assembled and tested at the factory. However, before starting the trowel, the following items should be checked:

- Fuel level
- Water level
- Oil level in the engine
- Condition of the air filter
- Condition of trowel arms and blades
- Grease the trowel arms daily.

**NOTICE:** Check the oil level in the engine and gearbox. Engine and trowel warranties are VOID if this unit is run without oil.

## 2.4 To Start

Before starting the operator must know the location and function of all controls.

1. Adjust the chair to the comfortable position for the operator.
2. Push down on the left safety stop pedal, turn the engine keyswitch, and hold it until the engine starts.  
NOTICE: If the engine is cold, pull out the choke control knob fully. The choke may need to be opened even when starting a warm engine.  
NOTICE: Cranking the engine for more than 5 seconds can cause starter damage. If the engine fails to start, release the keyswitch and wait 10 seconds before operating the starter again.
3. Allow the engine to warm up before operating the trowel.
4. Push down on the throttle foot pedal to start the trowel

## 2.5 To Stop

1. Return the control levers to their neutral position and release pressure on the throttle foot pedal.
2. Release pressure on the safety stop switch.
3. To stop the engine, turn the keyswitch to "O" (off).

NOTICE: Release the safety stop switch for emergency stop.

## 2.6 Operation

To utilize your Ride-On Trowel to its fullest capacity, the machine should be driven in the direction that the operator is facing. This will finish the widest possible area, while giving the operator and excellent view of the slab surface about to be troweled. When the machine reaches the end of the slab, make a 180° U-turn, and repeat the straight line of direction to the other end of the slab.

NOTICE: DO NOT use excessive pressure on the control levers. Excessive pressure does not increase the reaction time of the machine and can damage the steering controls.

NOTICE: Attempting to use the trowel too early in the curing stage of the concrete may result in an undesirable finish. Only experienced concrete finishers should operate the trowel.

## 2.7 Steering

The moving direction Control:

1. Reverse: Pull the control arm reverse
2. Forward: Push the control arms forward
3. rotate clockwise: Push the left control arm forward, pull the right control arm reverse.
4. rotate counter-clockwise: Push the right control arm forward, pull the left control arm reverse.
5. left sideways: Turn the left control arm left.
6. right sideways: Turn the right control arm right.

## 2.8 Pitch Adjustment

When changing or setting the pitch (angle) of the trowel blades, slow the machine, set the desired pitch on the left side of the machine, then adjust the right side to match.

To increase the pitch, turn the pitch control inward.

### 3 MAINTENANCE

#### 3.1 Periodic Maintenance Schedule

The chart below lists basic trowel and engine maintenance. Refer to engine manufacturer's Operator's Manual for additional information on engine maintenance. A copy of the engine Operator's Manual was supplied with the machine when it was shipped. To service the engine, tilt the seat forward.

	Daily	Every 20 hours	Every 50 hours	Every 100 hours	Every 200 hours	Every 300 hours
Grease trowel arms.	●					
Check fuel level.	●					
Check engine oil level.	●					
Inspect air filter. Replace as needed.	●					
Check external hardware.	●					
Pressure wash all surfaces until free of concrete.	●					
Check oil level in gearboxes.		●				
Grease gearbox, drive system and pitch posts fittings.		●				
Grease control linkage.		●				
Check drive belt for wear.			●			
Change engine oil.				●		
Check fuel filter.				●		
Clean and check spark plug.					●	
Replace oil filter.					●	
Replace spark plug.						●
Replace fuel filter.						●
Replace gearbox pressure relief valve.						●
Replace oil in gearboxes.						●

#### 3.2 Trowel Gearbox

Check the gearboxes for the correct oil level after every 20 hours of operation. Change the gearbox oil every 300 hours.

NOTICE: DO NOT mix types of gear oil. DO NOT overfill the gearbox with oil. Damage to the gearbox may occur if oils are mixed, or if the gearbox is overfilled. See Technical Data for oil quantity and type.

### 3.3 Lubrication

#### 1. Engine oil

The long life and successful operation of any piece of machinery is dependent on frequent and thorough lubrication

Before using the trowel, always check your engine for oil. Use proper engine oil as recommended in the engine manufacturer's manual. Fill crankcase to levels as recommended.

#### 2. Trowel

The drive system, gearbox and pitch posts are equipped with several grease fittings. Grease these fittings once a week, or every 20 hours, to prevent wear.

Use a general purpose grease and add one to two shots of grease at each fitting.

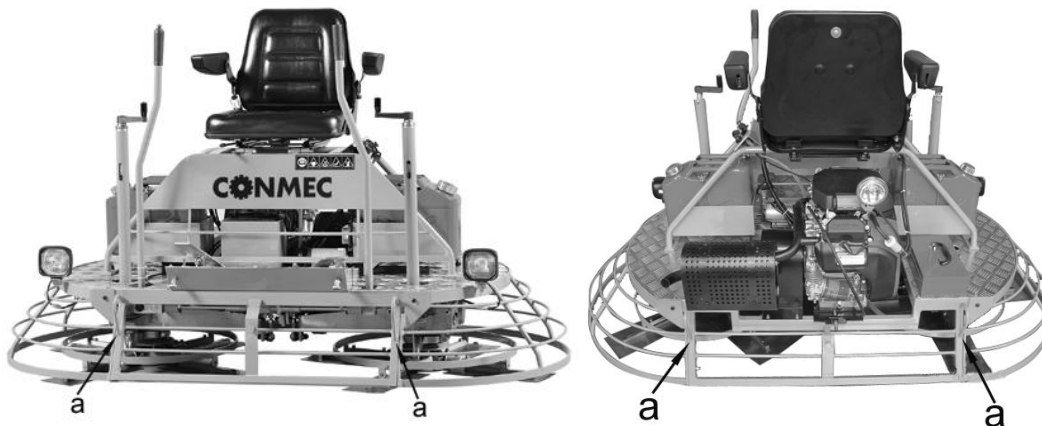
### 3.4 Transporting Trowels

ALWAYS turn the engine off and remove the key from the machine before moving or transporting machine.

To hoist the trowel:

1. Attach a sling or chains through the tie-down point (a) on each side of the guard ring.

NOTICE: Make sure lifting device has enough capacity to hold machine (see identification plate on machine for weight).



2. Use the trolley wheel for transportation.



### 3.5 Trouble Shooting

SYMPTOM	POSSIBLE CAUSES	SOLUTION
Engine does not start.	Engine problem.	Consult engine manufacturer's service manual.
Machine out of balance; wobbling excessively.	Operator is over-steering.	The movement of each gearbox is controlled by "stops" to provide the correct relationship of the control arm movement to machine movement. Excessive pressure on control arms in any direction will not increase reaction time and can damage steering controls causing machine to wobble.
	Trowel arm(s) bent.	Replace trowel arms(s).
	Trowel blade(s) bent.	Replace trowel blade(s).
Machine does not move.	Main shaft(s) bent due to machine being dropped.	Replace main shaft(s).
	Drive belt broken.	Replace drive belt.
	Vacuum between bottom of blades and surface of concrete.	Change pitch on blades to break suction.
Trowel noisy.	Key sheared in the main shaft.	Replace damaged key.
	Trowel blades have become misaligned and are contacting each other during rotation.	Replace damaged blades. Align blades so that one set represents a (+) and the other an (x) when viewed from above.
	Sheared key.	Check all keys in drive system.
	Loose clutch.	Tighten clutch.



#### 4. TECHNICAL DATA

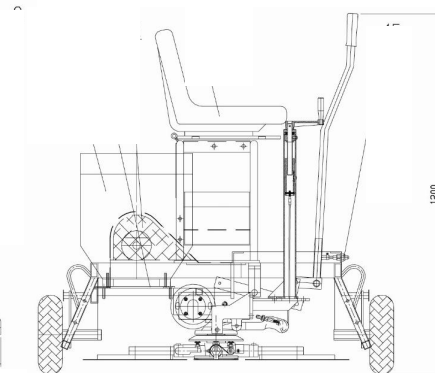
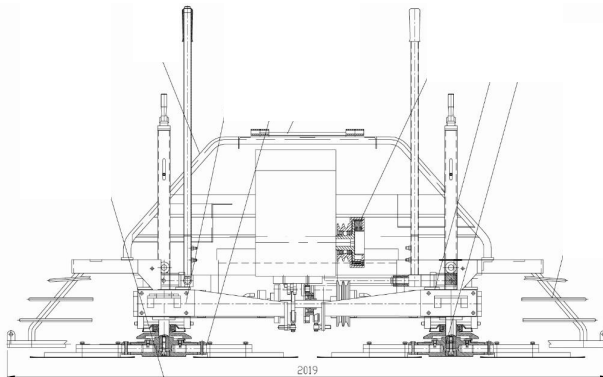
Model		CRT836-2	CRT836-4	CRT836-5	CRT836-6
Engine type		Chinese Petrol Engine	Honda GX690	B&S Vanguard	Kohler CH740
Power	kw(hp)	13.4(17.8)	16.5 (22.1)	16.7(23.0)	20.1(27.0)
Operating weight	kg(lb)	339 (746)	340 (748)	332 (730)	339 (746)
Blade speed	rpm	75-150			
Working Dia.	mm	1910			
Blade pitch (range)	degree	0-15			
Overlapping	type	Non-overlapping			
Gearbox Lubrication	type/ml	Glygoyle / 1300			

Model		CRT846-4	CRT846-6
Engine type		Honda GX690	Kohler CH740
Power	kw(hp)	16.5 (22.1)	20.1(27.0)
Operating weight	kg(lb)	380 (836)	379 (834)
Blade speed	rpm	75-150	
Working Dia.	mm	2320	
Blade pitch (range)	degree	0-15	
Overlapping	type	Non-overlapping	
Gearbox Lubrication	type/ml	Glygoyle / 1300	

#### Working Size (L x W x H):

CRT836: 2019mm x 1050mm x 1200mm

CRT846: 2420mm x 1160mm x 1250mm



### Sound Specification

The required sound specification:

	CRT836 Series	CRT846 Series
The sound pressure level at operator's location ( $L_{pA}$ )	89dB(A)	91dB(A)
The guaranteed sound power level ( $L_{WA}$ )	110dB(A)	112dB(A)

These sound values were determined according to ISO 3744 for the sound power level ( $L_{WA}$ ) and ISO 11204 for the sound pressure level ( $L_{pA}$ ) at the operator's location.

### Vibration Specification

The weighted effective acceleration value, determined according to ISO 2361-1 and ISO 5349, is:

	CRT836 Series	CRT846 Series
for <b>whole body</b> :	0.22 m/s <sup>2</sup>	1.46m/s <sup>2</sup>
for <b>hand arm</b> :	1.81 m/s <sup>2</sup>	2.95 m/s <sup>2</sup>

The sound and vibration specifications were obtained with the unit operating on fully cured, water wetted concrete at nominal engine.

**EC DECLARATION OF CONFORMITY  
CE-KONFORMITÄTSEKTLÄUNG  
DECLARACIÓN DE CONFORMIDAD DE LA CE  
DÉCLARATION DE CONFORMITÉ C.E.**

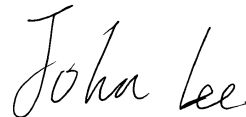
**CONMEC ENGINEERING CO., LTD  
NO.88, 2# INDUSTRIAL AVENUE, AN WU ROAD, WU QIAO COUNTY,  
FENG XIAN, SHANGHAI, P.R.C**

hereby certifies that the construction equipment specified hereunder /bescheinigt, da. das Bauger.t/  
certifica que la máquina de construcción/atteste que le matériel :

1. Category / Art / Categoría / Catégorie:  
Power Trowel
2. Type / Typ / Tipo / Type:  
CRT836-2, CRT836-4, CRT836-5, CRT836-6  
CRT846-4, CRT846-6

has been produced in accordance with the following standards:/in übereinstimmung mit folgenden  
Richtlinien hergestellt worden ist:/ha sido fabricado en conformidad con las siguientes normas: / a  
été produit conformément aux dispositions des directives européennes ci-après :

2006/42/EC  
2004/108/EC  
EN12649



John Lee  
Manager of Engineering

03.20.13  
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Date / Datum / Fecha / Date



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