

Instructions manual

ICA280-1EN3.pdf**Driving & Maintenance****Vibratory roller
CA280****Engine
Cummins 4BTA 3.9C****Serial number
68X23700-**

CA280 is one of Dynapac's medium-heavy soil compaction rollers. It is available in STD and D versions.

All types of base courses and subbase courses can be compacted deeper and the interchangeable drums, D to PD, and vice versa, facilitate even greater variety in the range of application.

The cab and safety-related accessories are described in this manual. Other accessories, such as compaction meter, tachograph and field computer, are described in separate instructions.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

Safety - General instructions

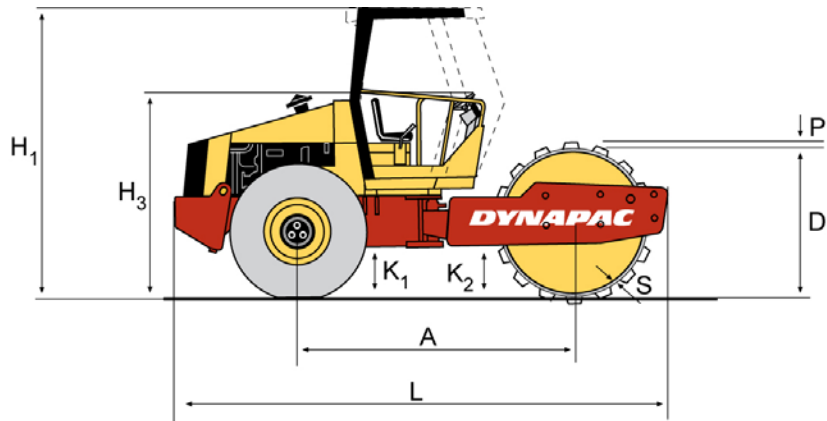
(Also read the safety manual)



1. **The operator must be familiar with the contents of the OPERATION section before starting the roller.**
2. **Ensure that all instructions in the MAINTENANCE section are followed.**
3. **Only trained and/or experienced operators are to operate the roller. Passengers are not permitted on the roller. Remain seated at all times when operating the roller.**
4. **Never use the roller if it is in need of adjustment or repair.**
5. **Only mount and dismount the roller when it is stationary. Use the intended grips and rails. Always use the three-point grip (both feet and one hand, or one foot and both hands) when mounting or dismounting the machine. Never jump down from the machine.**
6. **The ROPS (Roll Over Protective Structure) should always be used when the machine is operated on unsafe ground.**
7. **Drive slowly in sharp bends.**
8. **Avoid driving across slopes. Drive straight up or straight down the slope.**
9. **When driving close to edges or holes, make sure that at least 2/3 of the drum width is on previously compacted materials.**
10. **Make sure that there are no obstacles in the direction of travel, on the ground, in front of or behind the roller, or overhead.**
11. **Drive particularly carefully on uneven ground.**
12. **Use the safety equipment provided. The seat belt must be worn on machines fitted with ROPS.**
13. **Keep the roller clean. Clean any dirt or grease that accumulates on the operator platform immediately. Keep all signs and decals clean and legible.**
14. **Safety measures before refueling:**
 - **Shut off the engine**
 - **Do not smoke**
 - **No naked flame in the vicinity of the machine**
 - **Ground the filling device nozzle to the tank to avoid sparks**
15. **Before repairs or service:**
 - **Chock the drums/wheels and under the strike-off blade.**
 - **Lock the articulation if necessary**

Technical specifications - Dimensions

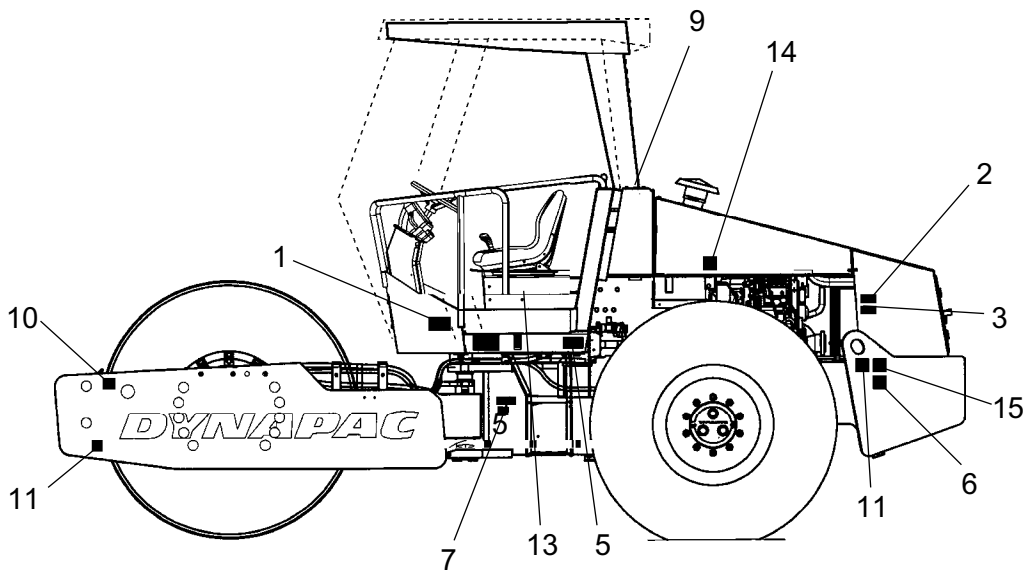
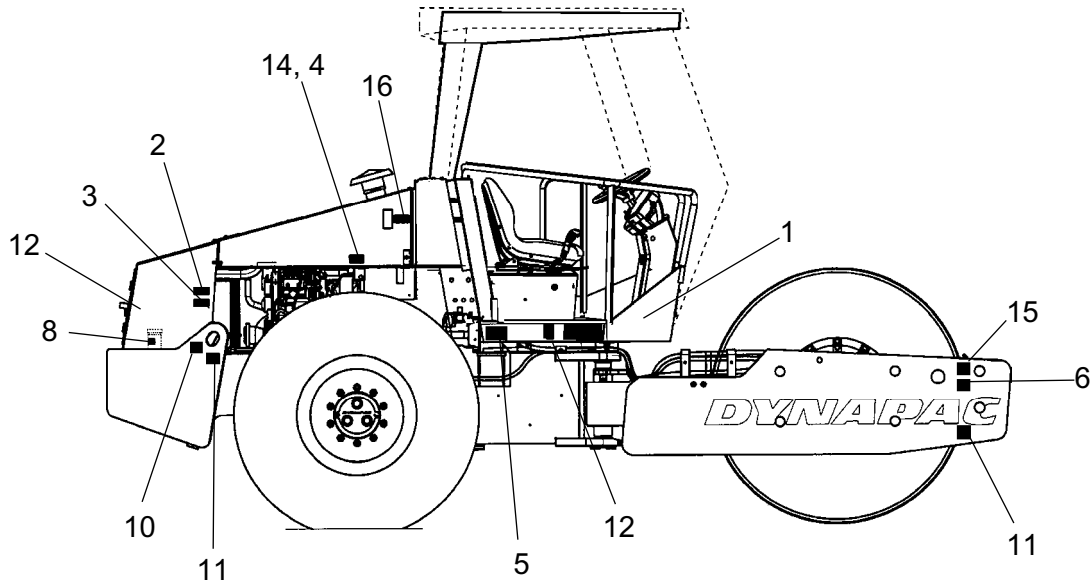
Dimensions, side view



	Dimensions	mm	in
A	Wheelbase, drum and wheel	2879	113,3
L	Length, standard equipped roller	5550	218,5
H1	Height, with ROPS (STD, D)	2952	116,2
H1	Height, with cab (STD, D)	2952	116,2
H3	Height, without ROPS / cab (STD, D)	2190	86,2
D	Diameter, drum	1523	60
S	Thickness, drum sweep, nominal	25	0,98
K1	Clearance, tractor frame (STD, D)	453	17,8
K2	Clearance, drum frame (STD, D)	400	15,7

Machine description- Decals

Location - decals



- | | | |
|--|---------------------------------------|----------------------------------|
| 1. Warning, Crush zone | 7. Product sign | 13. Handbook compartment |
| 2. Warning, Rotating engine components | 8. Diesel fuel | 14. Tire pressure |
| 3. Warning, Hot surfaces | 9. Hydraulic fluid/Biohydraulic fluid | 15. Hoisting plate |
| 4. Warning, Ballasted tire. | 10. Lifting point | 16. Hydraulic fluid/Biohydraulic |
| 5. Warning, Read instructions manual | 11. Fixing point | |
| 6. Warning, locking | 12. Master switch | |

Machine description - Electrical system

Fuses and relay in cab heater box (Optional)

To access the fuses (x2) in the heater box, release the plug (1)

The relay in the heater box is accessed by releasing the screws (2) and (3) on the top of the cover, and the screws (3) on the front of the cover, after which the cover (4) can be lifted off the heater box.

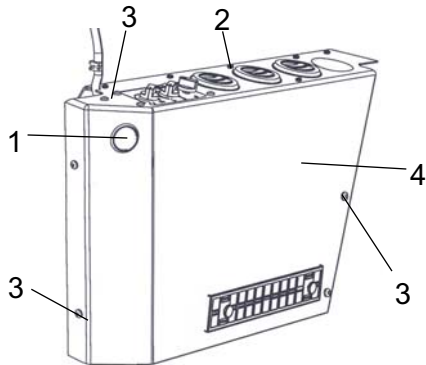


Fig. Heater box in cab.

- 1. Plug
- 2. Screws (x5)
- 3. Screws (x9)
- 4. Cover

Fuses in heater box

To access the fuses (x2) in the heater box, release the plug (1). Unscrew the cover (7) on the fuse box.

- 5. 20 A Fan
- 6. 20 A AC (Optional)

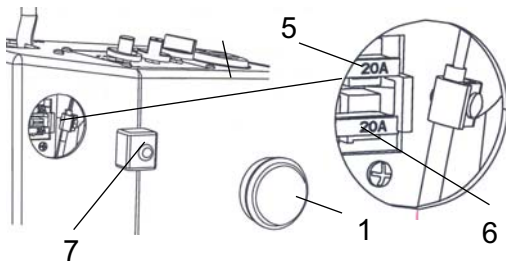


Fig. Heater box in cab.

- 1. Plug
- 5. Fuse (x1)
- 6. Fuse (x1)
- 7. Cover for fuse box

Relay in heater box

To access the relay (8) (x1) in the heater box: Unscrew the screws (2) and (3) on the top of the cover, and the screws (3) on the front of the cover. The cover (4) can now be lifted off the heater box.

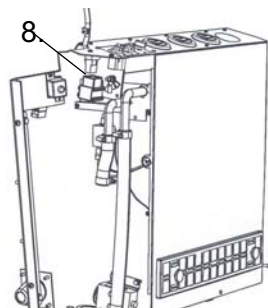


Fig. Heater box in cab.

- 8. Relay 12V

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below




- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

Operation - Driving

Operating the roller

 **Under no circumstances is the machine to be operated from the ground. The operator must be seated inside the machine during all operation.**

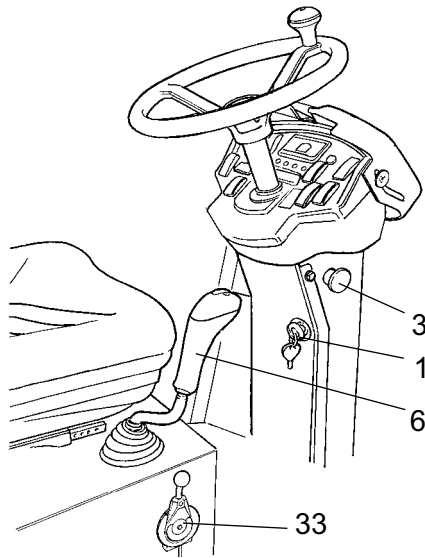


Fig. Control panel
1. Ignition starter switch
3. Emergency shut down
6. Forward/Back regulator
33. Engine speed control


Pull back the engine speed control (33) until it locks in the operational position.


Check that the steering is working correctly by turning the steering wheel once to the right and once to the left while the roller is stationary.

 **Make sure that the area in front of and behind the roller is clear.**

Carefully move the forward/reverse lever (6) forwards or backwards, depending on which direction of travel is required.

The speed increases as the lever is moved away from the neutral position.

 The speed should always be controlled by using the forward/reverse lever, and never by changing the engine speed.

 **Test the emergency stop by pressing the emergency stop button (3) while the roller is moving slowly forward. Brace yourself for a sudden stop. The engine will be switched off and the brakes activated.**

Check while driving that the warning lamps have not gone on.

Miscellaneous

Lifting

Locking the articulation



Articulation must be locked to prevent inadvertent turning before lifting the roller.

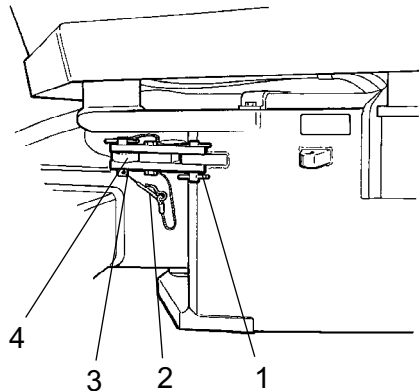


Fig. Articulation in the locked position

- 1. Locking arm
- 2. Locking pin
- 3. Locking stud
- 4. Locking lug

Turn the steering wheel to the straight ahead position. Push in the emergency/parking brake knob.

Pull out the lowermost locking pin (2), which has a wire attached. Pull up the locking dowel (3) which also has a wire attached.

Fold out the locking arm (1) and secure it to the upper locking lug (4) on steering joint.

Fit the locking stub (3) in the holes through the locking arm (1) and locking lug (4) and secure the stud in position with the locking pin (2).

Weight: refer to the hoisting plate on the roller

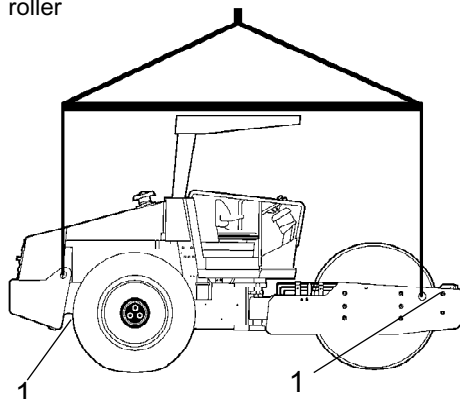


Fig. Roller prepared for lifting
1. Hoisting plate

Lifting the roller



The machine's gross weight is specified on the hoisting plate (1). Refer also to the Technical specifications.



Lifting equipment such as chains, steel wires, straps and lifting hooks must be dimensioned in accordance with the relevant safety regulations for the lifting equipment.



Stand well clear of the hoisted machine! Make sure that the lifting hooks are properly secured.

Maintenance - Maintenance schedule

Every 50 hours of operation (Weekly)

Refer to the contents to find the page number of the sections referred to!


Pos. in fig	Action	Comment
	Check that hoses and couplings are not leaking	
4	Inspect/clean the filter element in the air cleaner	Replace as required
16	Lubricate the articulation	
17	Check that the guiding cylinders are tight	
19	Check the wheel-nuts are tightened	
20	Check the tire pressure	
	Check the air conditioning	Optional


Every 250 hours of operation (Monthly)

Refer to the contents to find the page number of the sections referred to !

Pos. in fig	Action	Comment
22	Check oil level in rear axle/planetary gearing	
12	Check oil level in drum gearbox	
11	Check oil level in the drum	CA280STD
14	Check oil level in the drum cartridges	CA280D
31	Clean the coolers	
19	Check the bolted joints	The above applies to new or reconditioned components only
23	Check the bolted joints	The above applies to new or reconditioned components only
15	Check rubber elements and bolted joints	
24	Change the engine oil and oil filter	Refer to the engine manual
29	Check battery	
	Check the AC	Optional

Maintenance - 50h

 **Park the roller on a level surface. When checking and making adjustments, the engine should be switched off and the emergency/parking brake should be applied, if not otherwise specified.**

 **Ensure that there is good ventilation (air extraction) if the engine is run indoors. Risk of carbon monoxide poisoning.**

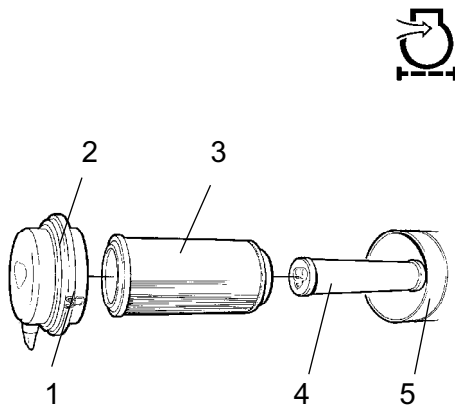



Fig. Air cleaner
1. Locking flaps
2. Cover
3. Main filter
4. Backup filter
5. Filter housing

Air cleaner Checking - Cleaning

 Replace or clean the air cleaner main filter if the warning lamp on the control panel comes on when the engine is running at maximum speed.

Accessible from the maintenance hatch in the motor hood on the left hand side of the machine.

Release the three locking catches (1), pull off the cover (2), and pull out the main filter (3).

Do not remove the backup filter (4).

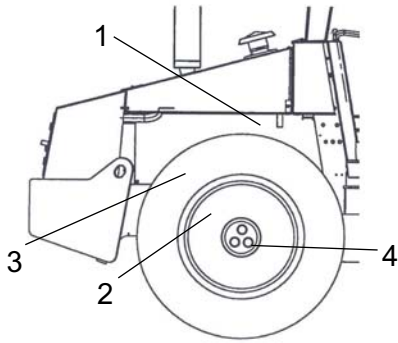


Fig. Right side of machine

1. Steering pump
2. Rear axle
3. Engine suspension
4. Wheel nuts

Bolted joints - Checking tightening torque

Steering pump to diesel engine (1) 55 Nm, lightly oiled

Rear axle suspension (2) 330 Nm (243 lbf.ft), oiled.

Engine suspension (3). Check that all the M12 bolts (x20) are tightened, 70 Nm, and lightly oiled.

Wheel nuts (4). Check that all nuts are tightened, 630 Nm oiled.

(The above applies to new or replaced components only).

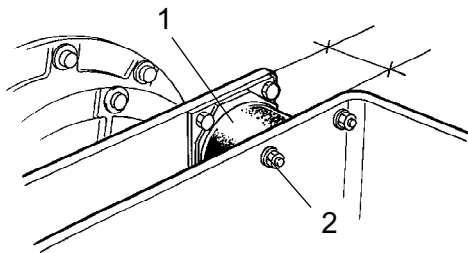


Fig. Drum, vibration side

1. Rubber element
2. Fastening screws

Rubber elements and fastening screws - Check

Check all rubber elements (1), replace all of the elements if more than 25% of them on one side of the drum are cracked deeper than 10-15 mm (0.4-0.6 in).

Check using a knife blade or pointed object.

Check also that the screw fasteners (2) are tightened.



Rear axle's planetary gears - Draining the oil

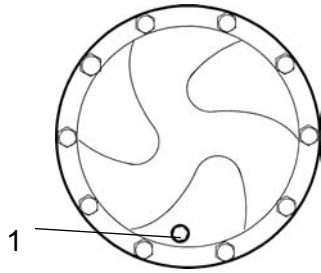


Fig. Draining the oil - planetary gear, std
1. Level/Filler plug

Position the roller with the plug (1) at its lowest position.

Wipe clean and remove the plug (1) and drain the oil into a receptacle. The volume is approx. 2 liters (2.1 qts).



Save the oil and hand in to an environment-friendly waste disposal station.

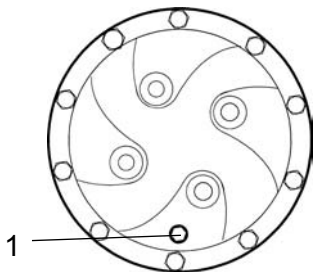


Fig. Draining the oil - planetary gear, optional
1. Level/Filler plug

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL