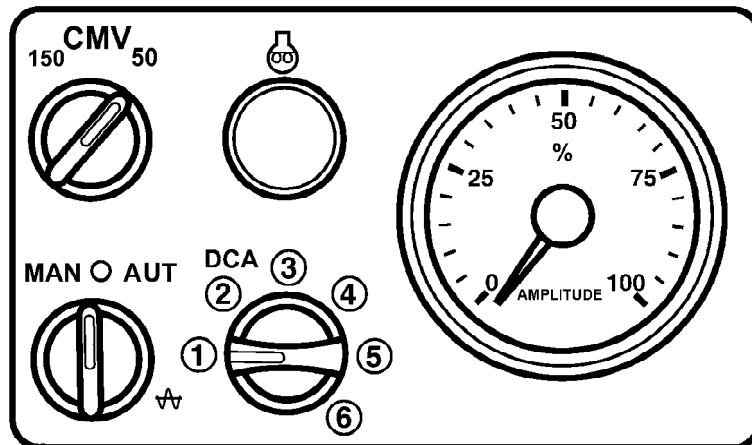


Accessories Manual

**E2017EN2.pdf
Operation & Maintenance**

**Dynapac Compaction Optimizer
(DCO)**

CA302D DCO



The Dynapac Compaction Optimizer (DCO) is an accessory designed to optimize compaction work by continuously adjusting compaction output to the condition of the ground. This accessory can be used in conjunction with another roller accessory, the Dynapac Compaction Analyzer (DCA), enabling the compaction results to be documented and stored.

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User description

Display - DCO instruments and controls

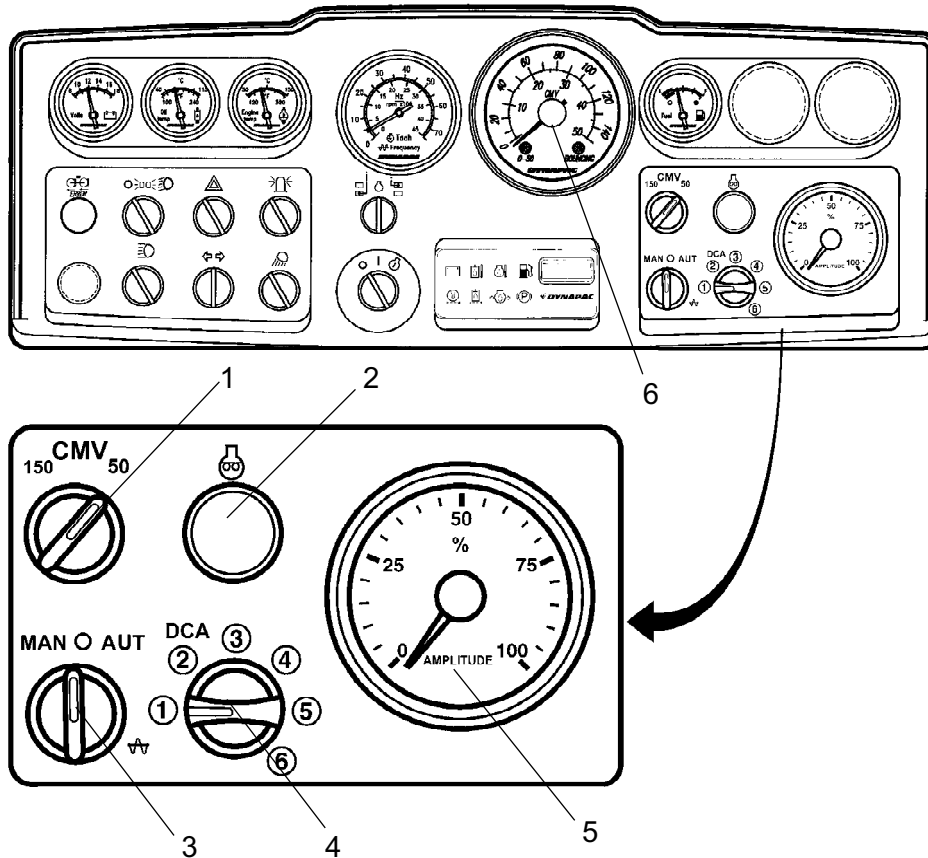









Fig. DCO instrument and control panel

1. CMV selector
2. Preheating lamp, diesel engine
3. Changeover switch, MAN/AUT
4. Changeover switch, Amplitude
5. Amplitude indicator
6. Compaction meter

Function descriptions - DCO instruments and controls

No	Designation	Symbol	Function
1	CMV selector		Position 150 shows the outer scale, position 50 shows the inner scale of compaction meter 6.
2	Preheating lamp		Lights up when the diesel engine is being preheated and the starter switch is in position I.
3	Changeover switch, MAN/AUTO	MAN O AUTO	Changeover switch for manual and automatic drive.
4	Changeover switch, Amplitude		Changeover switch for setting amplitude and compaction control.
	Position 1		Amplitude 0,40 mm
	Position 2		Amplitude 0,65 mm (Used with DCA).
	Position 3		Amplitude 0,90 mm
	Position 4		Amplitude 1,40 mm
	Position 5		Amplitude 1,80 mm
	Position 6		Amplitude 2,00 mm
5	Amplitude indicator		Shows percentage (%) of max amplitude.
6	Compaction meter		Accessories, see separate instructions E2009.

Instrumentation - Operating modes



Under no circumstances is the machine to be operated from the ground. The driver must be seated inside the machine for all operations.



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

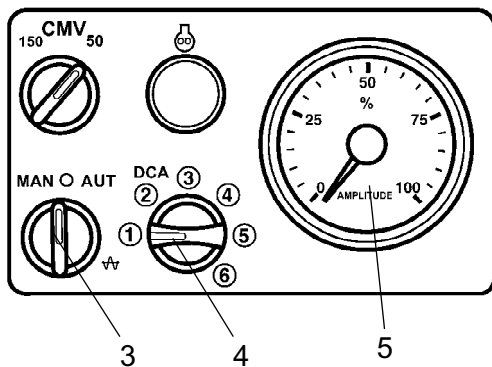


Fig. Control panel
3. Changeover switch, MAN/AUT
4. Changeover switch, Amplitude
5. Amplitude indicator

The normal mode of operation for this roller during vibration is automatic mode with max amplitude, changeover switch (3) set to AUT and changeover switch (4) set to pos. 6. The vibrations are started and stopped using the switch on the joystick. The roller's vibration control system will now automatically select an amplitude between zero and max to suit the condition of the ground.

To limit the max amplitude, turn switch (4) down one or more positions and the control system will then automatically select an amplitude between zero and the selected max value. The amplitude selected by the control system can be seen on the amplitude indicator (5) which shows the current amplitude as a percentage of the max amplitude for this roller.

Set switch (3) to MAN to select a number of fixed amplitude positions using switch (4). The amplitude will remain constant in this position irrespective of ground condition. In this position, too, amplitude indicator (5) will show the current amplitude as a percentage of the max amplitude for this roller.

When compaction control and documentation is to be carried out with the DCA equipment, switch (3) must be in MAN position and switch (4) in position 2 (DCA).

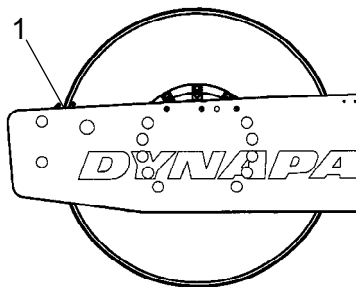
Switch (3) is fitted with a lamp, which is used for fault code signalling if a fault occurs on the drum's control system.

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. Left drum side
1. Indicator pin***

Drum - Oil change

Note: This 50-hr oil change applies only to new machines or when the drum has been reconditioned.

Park the roller on flat ground with indicator pin (1) on the inside of the drum level with the top of the drum frame.

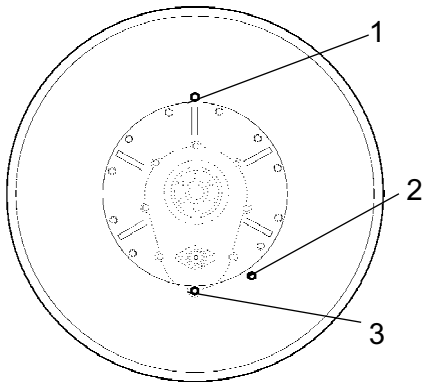


Fig. Drum, right side
1. Filler plug
2. Level plug
3. Drain plug

Drum - Oil change

Ensure that the drum's plugs are positioned as in Fig 2.

Place a vessel capable of holding at least 20 liters (5.3 gal) under drain plug (3).

Remove and clean filler plug (1), level plug (2) and drain plug (3).

Allow all the oil to drain out. Clean and refit drain plug (3) and fill with new synthetic oil. The total volume of oil in the drum must be 15 liters (4.0 gal).



Deliver the drain oil to environmentally correct handling.



Ensure that only MOBIL SHC 629 is used in the drum.

Clean and refit filler plug (1) and level plug (2).

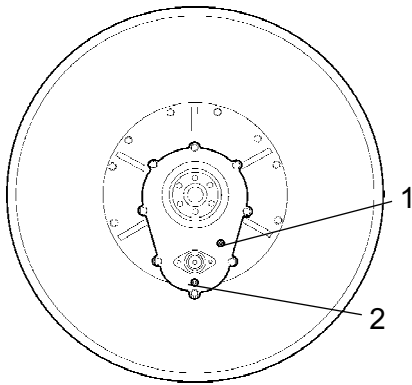


Fig. Gearbox - Drum, right side
1. Filler plug/Level plug
2. Drain plug

Gearbox - Oil change

Place the roller on a level surface.

Place a receptacle that holds at least 1 liter (0.3 gal)) under the drain plug (2).

Unscrew and clean the filler/level plug (1) and the drain plug (2).

Allow all of the oil to drain off. Clean and refit drain plug (2) and fill with oil up to filler/level plug (1). The total volume of oil in the gearbox must be 0.3 liters (0.08 gal).



Deliver the drain oil to environmentally correct handling.



Ensure that only MOBIL SHC 629 is used in the gearbox.

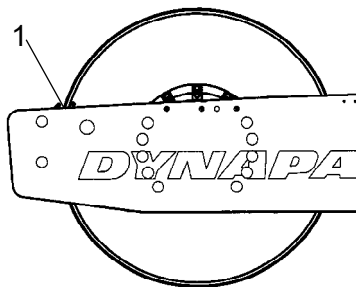
Clean and refit filler/level plug (1).

Maintenance - 250h

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.

**Drum - Checking the oil level**

Park the roller on flat ground with indicator pin (1) on the inside of the drum level with the top of the drum frame.

Fig. Left drum side
1. Indicator pin

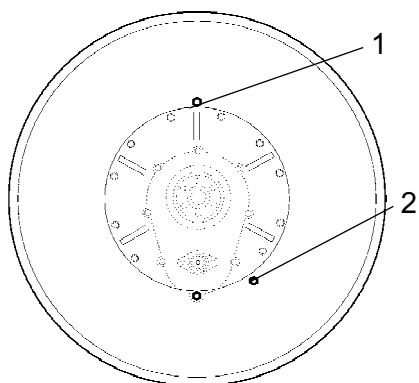


Fig. Drum, right side
1. Filler plug
2. Level plug

Drum - Checking the oil level

Make sure that the drum plugs are fitted as per Fig. 3.

Wipe clean around the filler and level plugs. Unscrew the filler plug (1) and level plug (2).

Top up with oil through the filling plug (1), until oil begins to run out from the level-plug (2) hole. The level is correct when it stops running.



Do not overfill with oil - risk of overheating.



Ensure that only MOBIL SHC 629 is used in the drum.

Clean and refit filler plug (1) and level plug (2).

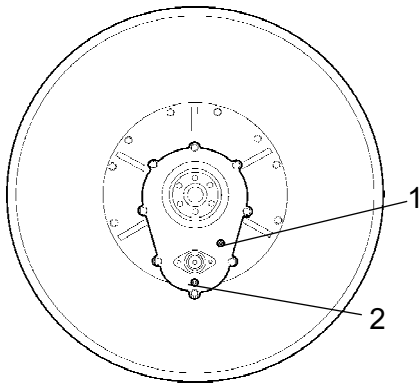


Fig. Gearbox - Drum, right side
1. Filler/Level plug
2. Drain plug

Gearbox - Checking the oil level

Park the roller on flat ground.

Clean and dry around filler/level plug (1) and unscrew the plug.

Check that the oil is level with the bottom edge of the plug hole.

If the oil is too low, fill until the oil reaches filler/level plug (1).




Overfilling with oil can cause overheating.




Ensure that only MOBIL SHC 629 is used in the gearbox.

Clean and refit filler/level plug (1).

Maintenance - 500h

 **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.**

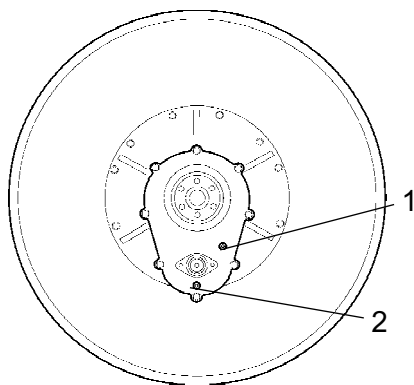


Fig. Gearbox - Drum, right side
1. Filler plug/Level plug
2. Drain plug


Gearbox - Oil change

Place the roller on a level surface.

Place a receptacle that holds at least 1 liter (0.3 gal)) under the drain plug (2).

Unscrew and clean the filler/level plug (1) and the drain plug (2).

Allow all of the oil to drain off. Clean and refit drain plug (2) and fill with oil up to filler/level plug (1). The total volume of oil in the gearbox must be 0.3 liters (0.08 gal).

 Deliver the drain oil to environmentally correct handling.

 Ensure that only MOBIL SHC 629 is used in the gearbox.

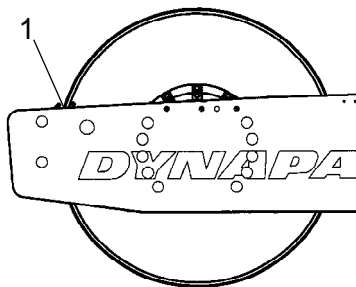
Clean and refit filler/level plug (1).

Maintenance - 2000h

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.

**Drum - Oil change**

Park the roller on flat ground with indicator pin (1) on the inside of the drum level with the top of the drum frame.

**Fig. Left drum side
1. Indicator pin**

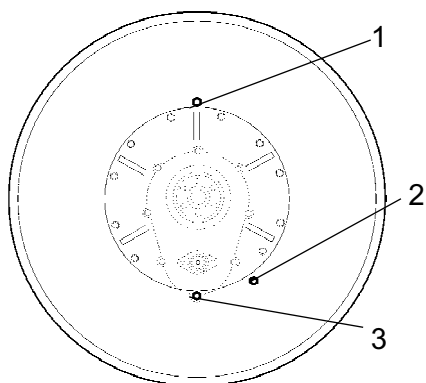


Fig. Drum, right side
1. Filler plug
2. Level plug
3. Drain plug

Drum - Oil change

Ensure that the drum's plugs are positioned as in Fig 2.

Place a vessel capable of holding at least 20 liters (5.3 gal) under drain plug (3).

Remove and clean filler plug (1), level plug (2) and drain plug (3).

Allow all the oil to drain out. Clean and refit drain plug (3) and fill with new synthetic oil. The total volume of oil in the drum must be 15 liters (4.0 gal).



Deliver the drain oil to environmentally correct handling.



Ensure that only MOBIL SHC 629 is used in the drum.

Clean and refit filler plug (1) and level plug (2).

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