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USE AND MAINTENANCE MANUAL STATIONARY OR MOBILE HIGH FLOW CENTRIFUGAL PUMPS SERIES GP



DODA [®]

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Data and measures written in this catalogue are approximate and there will be some changes without previous advice.

DODA thanks you for having bought an item of its production range and invites you to read this manual.

In it you find all necessary information for the correct use of the machine bought. Therefore we recommend you to read it wholly and follow all instructions contained in it.

Furthermore please keep it in a suitable place, so that it could remain unaltered.

The content of this manual can be changed without notice or additional obligations, in case changes or improvements to the units already delivered could be necessary.

It is forbidden to copy or translate any part of this manual without previous authorization.

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EC DECLARATION OF CONFORMITY AS
DEFINED BY DIRECTIVE 2006/42/EC AND
FOLLOWING MODIFICATIONS

The machines described in the following "USE AND MAINTENANCE" booklet are stationary or mobile water scooping machines. If applied to the hydraulic lifting device of a tractor, the mobile GPs are easy to move and rapid to install. They are specially suitable for direct flow irrigation of agricultural crops, but also for transferring water from basins or canals.

The frame's special shape enables the pump to work at any inclination. Moreover, the pump drain pipe can rotate 360° and can be regulated in height.

Manufactured in various models with varied performance and power absorption, they are supplied in the following versions: with Cardan joint, powered by electric motors or hydraulic engines.

The galvanised structure, the oil bath drive system and the high quality of materials used assure the machine high durability and simple maintenance.

From the technological point of view, the concept adopted for all other DODA products has been applied to this machine as well:

" Highest quality for highest reliability and longest service life ."

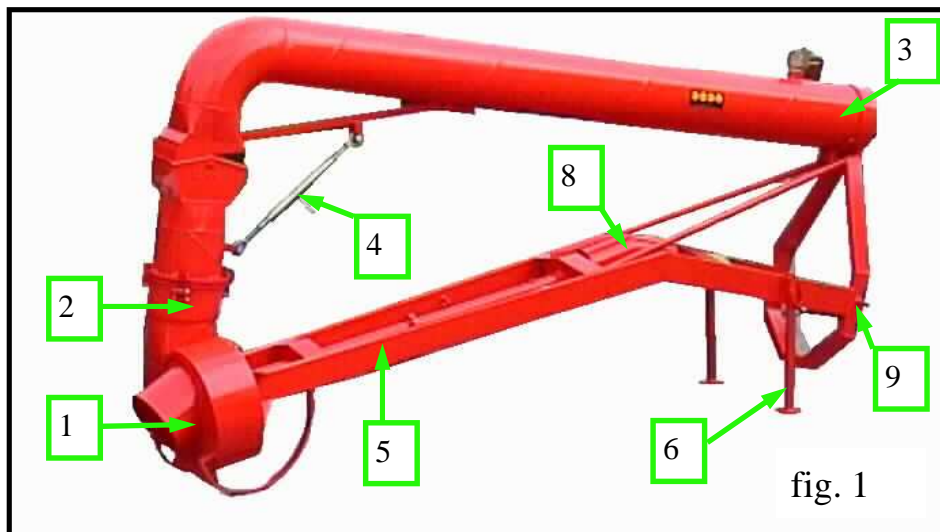


Fig. 1 shows a standard mobile GP with manual positioning of the delivery pipe.

The main utilisation of this machine is flow-irrigation, when frequent and rapid shifts are necessary.

- 1) GP pump body.
- 2) Screw for delivery pipe radial regulation.
- 3) Delivery pipe.
- 4) Hydraulic piston or screw tie rod.
- 5) Pump lattice.
- 6) Support feet.

- 7) Driving pipe.
- 8) Protection.
- 9) Three-point connection.
- 10) Swivel ring for 360° pump rotation
- 11) Hydraulic engine to rotate the delivery pipe 360° (radial)
- 12) Hydraulic ram for lattice tilt (radial)

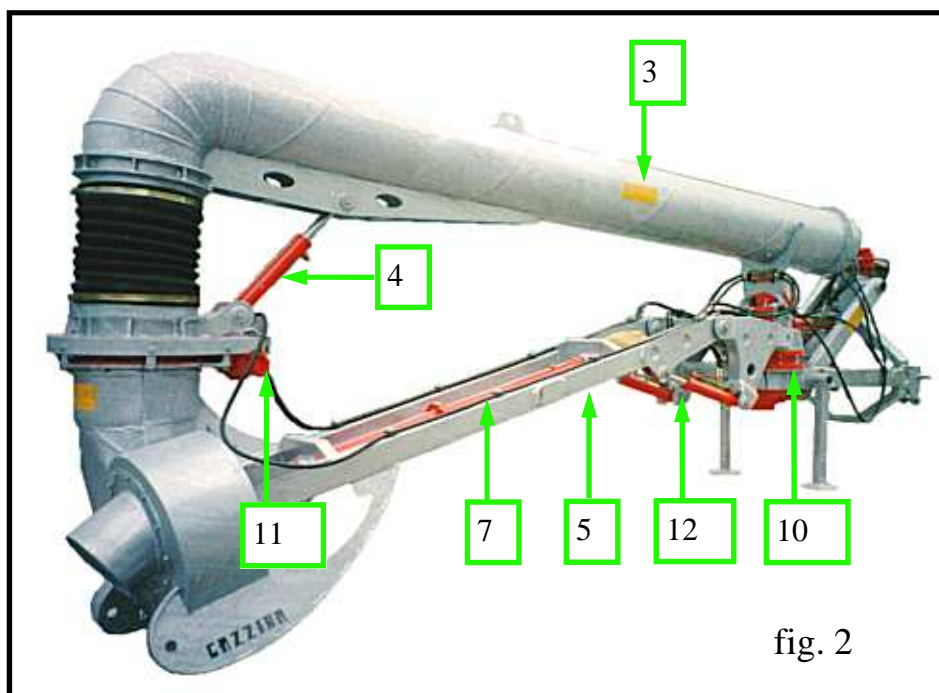


fig. 2

Fig. 2 shows a special mobile GP (radial GP), completely hot-galvanised, with various hydraulic movements. This type of pump assures an easier positioning even in the areas most difficult to reach.



fig. 3

Fig. 3 shows a stationary GP. Completely hot galvanized, specially suitable in cases where it is periodically necessary to move a big water amount.

The machine loading and unloading operation can be carried out:

- by means of a lift truck;
- by means of a hoisting crane.

N.B.: the carrying capacity of the sling must be seven times as much as the machine total weight (if it is made of a textile fibre).

WARNING: in either case the machine must not be lifted by catching on the weakest parts of the structure (delivery pipes, etc...).

WARNING : before lifting the structure, be sure that it is well-balanced.

WARNING: never move abruptly or bump stainless steel parts with the forks of the lift truck.



3. GENERAL WARNING

- 1) Check that no component has been damaged during transport, in this case contact immediately our dealer .
- 2) The connection to supply must be carried out according to DODA instructions, by skilled workers (by connecting the cables of the electric motor to the input or the pump to the tractor by means of the Cardan shaft). DODA is in no way responsible for any electric connection, (please follow the instructions on the motor plate and on the sticker showing the rotation direction).
- 3) Before starting the machine check that the rotary driving parts are adequately protected, as foreseen by their manufacturer.
- 4) If the protection of a rotating component is not provided, the user has to supply the machine with it in conformity with the provisions of the law.
- 5) DODA takes no responsibility for modifications which could alter the characteristics of the machine bought.

- 6) DODA machines must not be installed on structures not in conformity with EC safety provisions.
- 7) Before operating the machine it is indispensable to read carefully all directions in the “**Instructions for Use and Maintenance**” manual. In particular, be sure that you have completely understood the machine operation.
- 8) The machine has been designed and built to treat water and sewage, not for chemical products. Handling these substances can cause permanent damages to this machine.
- 9) Check that the machine length is suitable for the depth of the tank.
- 10) As regards machines with oil-bath driving, the driving pipe as well as the geared units (if presents) must be filled with oil..
- 11) Carefully avoid that machine rubber parts come into contact with oil, grease or oil derivatives.

4. PRELIMINARY CHECKS

Our machines are supplied without lubricating oil either in the driving pipes or in the geared units. Before starting the machine, fill in the lubricating oil:

- unscrew caps: fill with oil and blow air out.
- Pour SAE90 oil **very slowly** up to maximum level ;
- fill with high-temperature resistant, synthetic oil (ONLY AFI REVERSE GEAR)
- wait at least 3 hours before checking the minimum oil level (ONLY FOR DRIVING PIPES);

- close caps.

Check the level cap periodically:
oil has never to be under that level.

N. B. The driving pipe has to be horizontal during filling and controls operations.

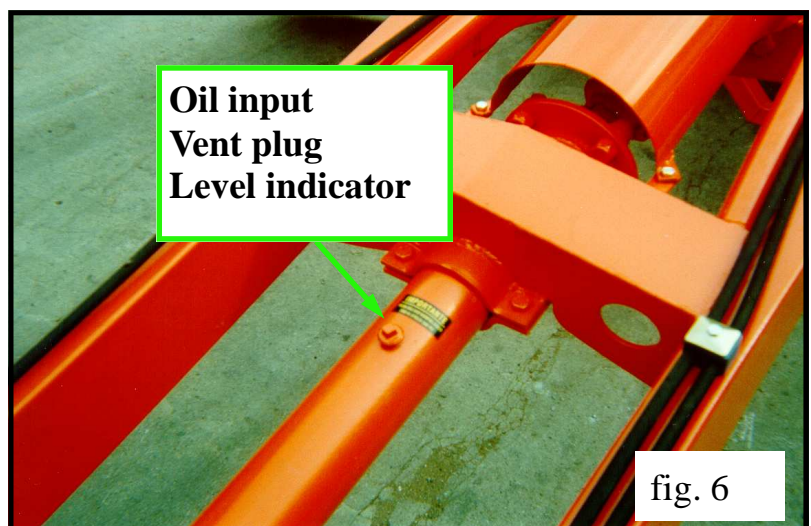


fig. 6

N.B.: As far as all machines with Cardan are concerned, connect the Cardan shaft between the tractor power take-off and machine unit. For good functioning, the Cardan shaft has to work on ground level.

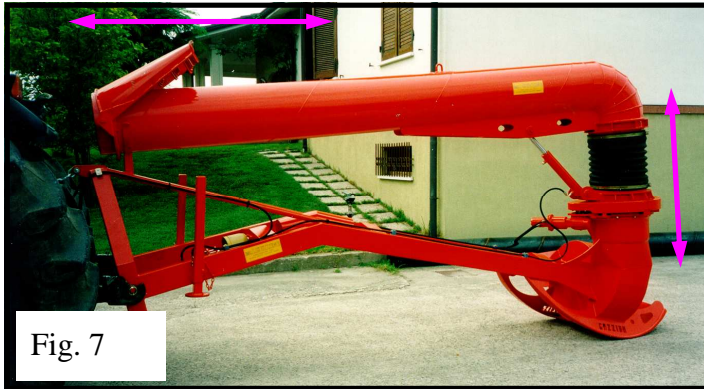


Fig. 7

Check also that the chain, standard supplied with Cardan-shaft protection, is fastened to the ring.

N.B.: As far as the machines powered by electric motor are concerned, DODA is not responsible for any electric connection (please carefully follow directions on plate on motor as well as on sticker indicating the rotation sense).

N.B.: To transport the machine on long distances, load it on an proper vehicle by following directions indicated in paragraph “MACHINE LOADING AND UNLOADING”. Never use a tractor for machine road transport .



Fig. 8

Mobile GP pumps are supplied with three-pointed connection 9 fig. 1. Therefore, the lattice lifting and lowering system depend on tractor.

Follow these instruction to position a mobile GP:

- move back the tractor until the bank of the ditch from with you want to draw water is reached;
- lower the pump until the pump body is completely dipped;
- loosen retainer 2 fig. 1 and rotate delivery pipe 3 fig. 1 to the direction required;
- act on piston 4 fig. 2 on the screw tie rod 4 fig. 1 until the end of delivery pipe rests on the ground.

At this point the pump is ready for starting.



Fig. 9

To positioning a stationary GP pump, carried out as follows:

- fasten the pump to a crane as described in section “MACHINE LOADING AND UNLOADING”;
- lower the machine into the tank until the pump body is completely dipped into water;
- fasten the pump on the bank of the basin.

At this point the pump is ready for starting.



fig. 10

6. WORKING

ATTENTION: read section “GENERAL INSTRUCTIONS” before setting the machine in motion.

After having arranged the machine and checked its stability during normal functioning, you can start using it.

As for all versions provided with an electric motor, after checking the correct rotation sense, connect them to supply

Starting phases:

- start tractor;
- operate the lever engaging the tractor power take-off;
- bring tractor to desired speed rate.

Stop phases:

- disconnect lever engaging tractor power take-off;
- stop tractor engine;
- disconnect Cardan shaft on the tractor as well as on the machine side.

- 1) Both during working phases and inspection ones, wear always proper clothing (overalls, gloves, helmet, accident prevention shoes, fastened clothes, etc...).
- 2) The machine has always to be used in a well-lit place.
- 3) Since gases released by liquid manure are poisonous, check that:
 - the work area is suitably ventilated;
 - the machine is not used near to flames.
- 4) Never inspect the liquid manure tank alone. If you loose your balance or if you feel faint due to fumes, ask for help immediately.
- 5) If you do not need to work in a tank, cover it.
- 6) The machine has to be used only by accountable adults and in a place not be accessible to children.
- 7) Do not carry out operations or adjustments when the machine is in motion or when it is connected to supply.
- 8) The machine has to be employed only if all necessary protections are correctly positioned, by following the instructions indicated in the previous paragraphs to avoid possible contacts with moving parts. Do not damage or remove such protections.
- 9) The machine can be set in motion only if it has already been filled up with oil (drive pipes and gearbox).
- 10) Before starting work phases, check that the whole assembly is stable (machine and tractor).
- 11) During maintenance verify that the machine is perfectly standing and disconnected from supply.
- 12) The trolley has not to be used for road transport (if foreseen).
- 13) During operation, maintenance or adjustment, the rubber parts of the machine (gaskets, etc...) have not to come into contact with oil, grease or oil derivatives.
- 14) Make sure that motor rotation is clockwise as indicated by the arrow on the motor (if foreseen).
- 15) As regards machines provided with electrical supply, the connection has to be carried out in a place protected from atmospheric precipitation.
- 16) If the delivery line is connected to pipes or hoses, check that the suitable fastening joints are in perfect conditions; do not stop near to them, due to danger of bursting and tearing.
- 17) Work and keep the machine in a dry area and protected from rainfall, if it is not employed for a long time.

8. MAINTENANCE

page 8

Before carrying out any maintenance operation stop the machine and disconnect it from supply.

- 1) Check the oil level regularly in machine parts requiring lubrication, (driving pipes and geared units) and replace oil completely every 2 years (SAE90).
- 2) Grease rotary parts every 50 working hours (lubricators, piston articulated joints, gear wheels, etc...).
- 3) At the end of its utilisation, wash the machine to prevent liquid manure from solidifying: this would cause damages.
- 4) Check impeller wear-conditions periodically and replace it if necessary.
- 5) Check that no wooden pieces, stones or other foreign bodies enter pump body, to avoid impeller blade damages.

As for all spare parts, address DODA authorized dealers directly.

9. STICKERS

The machine is provided with the following stickers:



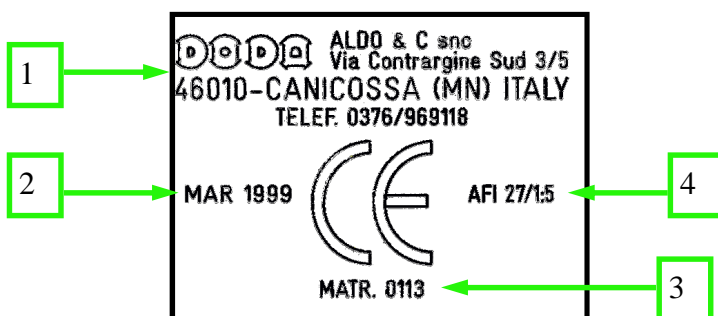
WARNING: fill with oil up to the maximum level before using the machine (SAE 90).



FILL UP THE MACHINE WITH OIL
TILL THE LEVEL INDICATED
AND CHECK IT PERIODICALLY.



THIS STICKER REMINDS YOU TO CHECK THE ROTATION SENSE OF THE MACHINE ELECTRIC MOTOR BEFORE STARTING THE MACHINE.

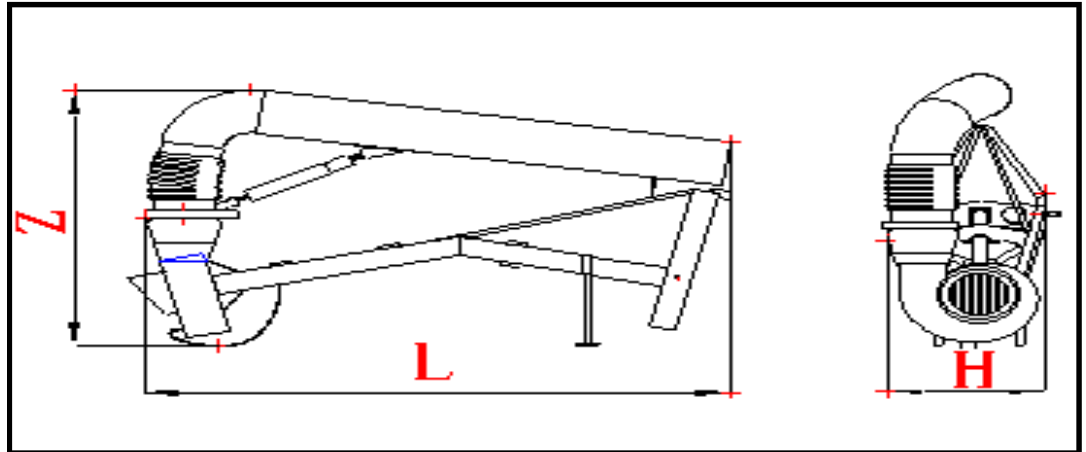


Data plate indicating the conformity with EC regulations:

- 1) NAME OF THE FIRM
- 2) MONTH AND YEAR OF PRODUCTION
- 3) SERIAL NUMBER
- 4) MACHINE MODEL

10. PERFORMANCE AND TECHNICAL DATA

- Bath-oil drive
- Hot-galvanised structure (painted on request)
- Capacity refers to a 500 rpm/l speed and the head is 2,5m.



Mod Pompa Pump mod. Mod. pompe Pumpenmodell	Tubo Uscita (Ø mm) Outlet pipe (Ø mm) Tuyau sortie (Ø mm) Auslaß (Ømm)	L (mm)	H (mm)	Z (mm)	Portata (l/s) Capacity (l/s) Débit (l/s) Förderleistung (l/s)	Potenza Trattore (HP) Tractor Power (HP)
GP 200	200	3300 4280 5260	800	1735	140	35
GP 250	250	3300 4280 5260	820	1665	210	45
GP 300	250	3300 4280 5260	878	1822	280	55
GP 350	350	3300 4280 5260	880	1983	350	65
GP 400	400	3300 4280 5260	925	1997	440	80
GP 450	450	3300 4280 5260	1037	2278	630	97
GP 500	500	3300 4280 5260	1037	2444	750	116
GP 600	600	3300 4280 5260	1050	2500	1100	150

NOTES

NOTES

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BY DIRECTIVE 2006/42/EC AND FOLLOWING
MODIFICATIONS**

WE

DODA ALDO & C. S.N.C.

Via Contrargine Sud, 3/5
46010 Canicossa (Mantova)

HEREBY DECLARE UNDER OUR OWN RESPONSIBILITY THAT THE
FOLLOWING PRODUCTS:

HIGH FLOW CETRIFUGAL PUMPS SERIES GP

TO WHICH THIS DECLARATION REFERS, CONFORM TO DIRECTIVE 2006/42/
EC AND FOLLOWING MODIFICATIONS.

CANICOSSA (MANTOVA)

**ALDO DODA
CEO**



COSTRUZIONE MACCHINE AGRICOLE
di DODA ALDO & C SNC

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