

GALUGHO

OPERATOR'S HANDBOOK AND SPARE PART'S LIST



HYDRAULIC CRANES

MODEL S GM





RECOMMENDATIONS TO THE OWNER

The decision to opt for GALUCHO was a good one. The result of many years of

experience, under the most difficult and diverse working circumstances, GALUCHO material gives complete satisfaction to its many thousands of users, both in Portugal and in over 40 countries, of different continents, where it is already at work. We are sure that, if used properly, and given the necessary care to maintenance, the machine you have just acquired will perform the efficient and economical job for which it was designed, and which a user has the right to expect from it. The present manual contains very important instructions concerning set-up, tuning, maintenance, etc., As well as diagrams and a parts list.

Begin by reading it, attentively, in order to familiarise yourself with the material. Then, keep it in secure and accessible place, for future consultation. If you still have doubts, consult the distributor who supplied the machine, or else consult us, as it is in all of our interests that you be satisfied with, and obtain maximum yield from your purchase.

Recordings and technical data are indicated by name and subject to alterations without previous notification.

GALUCHO - Indústrias Metalomecânicas, S.A. Av. Central, N.º 4 2705-737 S. João das Lampas - Sintra, Portugal Telef.:21 960 85 00 Fax:21 960 85 99 www.galucho.pt info@galucho.pt

CONDITIONS OF GUARANTEE

- 1- Our company guarantees all the agricultural equipment which is manufactured for a period of two years from the date of invoice.
- 1.1- This guarantee only includes the supply of replacement parts or components which are proved to be deficiently made or installed, and does not cover the payment of manual labour or displacement costs.
- 1.2- Any components considered by this company to the worn out, are excluded from the guarantee.
- 1.3- The guarantee given by this company will not include any parts not made by themselves, for examples tyres, which will remain the exclusive responsibility of their respective manufacturer, and this decision will be communicated to the claimant with all its consequences.
- 2- Reasons for immediate loss of guarantee:
- 2.1- Use of equipment in abnormal working conditions, or used with tractors of different powers than those indicated, in each different case, in our technical literature.
- 2.2- The substitution of pieces or accessories for others not made or recognised by this company.
- 2.3- Any repair or alteration done, during the period of guarantee, without our knowledge or authorisation.
- 3- All claims against the guarantee must be communicated to us by the respective retail agents, by means of a claim form. The pieces or accessories, which are the objects of complaint, must be sent for examination to our Technical Services and Quality Department.

If the reasons for the complaint are confirmed and accepted, new pieces will be supplied, or their value credited to the customer, if already sent.

- 4 The powers indicated in our catalogues and other literature as necessary for certain equipment of our construction, may vary according to the different types and states of
- the earth, the experience of the operator, the state of the tractor, and the adherence of the latter to the terrain on which it is working.
- 5 This company can only accept the return of equipment to the factory, within a maximum of 15 days after the sending of the invoice, providing it has not been used in a working situation, it is not a model already withdrawn from production, or if it is still part of our production range, there have been no alterations made to the model.
- 6 In compliance with regulations determined in the Directiva Máquinas/CE (Machines Directive/CE), this company:
- 6.1 Manufactures its machines respecting the relevant safety regulations, namely with respect to the protection of moving parts;
- 6.2 Supplies a certificate of conformity, referring to the norms and regulations fulfilled;
- 6.3 Supplies a user's manual and catalogue of parts for each machine.

NOTE: Every Galucho dealer is obliged to supply the eventual consumer with:

- The safety devices, fixed or detachable, relevant to each machine;
- The certificate of conformity and the user's manual with a catalogue of parts for each machine.
- 7 We recommend the reading of our pamphlet: "General Conditions of Sale and Payment".
- 8 For any necessary clarifications, please consult our Commercial Services.

INNOVATIONS

GALUCHO-IND. METALOMECÂNICAS, S.A. continually attempts to perfect its products, reserving itself the right, at any time, to make alterations to the design and/or to the specifications of construction materials, and its respective components, without incurring, as a result, the obligation to apply these alterations to machines previously made and sold.

1- EXPLANATORY NOTE

This series has only one model – GM 1000. All information included in this Manual concerns this model.

The hydraulic crane is mounted on the tractor's three point linkage and allows to engage a fertilizer spreader. Without the fertilizer spreader this model becomes a multipurpose machine, thanks to its high lifting and extension capability. The hydraulic crane is able to unload directly to a lorry up to a maximum of 1000 kg.

2- MAIN SPECIFICATIONS

The hydraulic crane's main specifications are:

- One hitch frame (Pict.1 A);
- One telescopic boom with a hydraulic cylinder, chain and hook (Pict.1 – B);
- One double effect lifting cylinder (Pict.1 C);
- One support leg (Pict.1 D);
- Two link sheets to the third point linkage of the fertilizer spread.

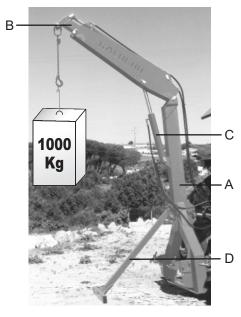


Fig. 1

3- HANDLING

The hydraulic crane may only be handled when not coupled on the three point linkage of a tractor. It must be very carefully handled and through the hook placed on the rear part of the telescopic arm (Pict. 2 - A).



Fig. 2

4- ENGAGEMENT TO THE TRACTOR

To engage the hydraulic crane to the tractor, proceed as follows:

- Couple the hydraulic crane on the three point linkage of the tractor through the pins delivered with the machine:
- Adjust the tractor's hydraulic third point to obtain a good horizontality of the crane;
- Adjust the hitch's lateral drop arms to ensure the verticality of the crane;
- Adjust the hitch's stabilizers to guarantee the alignment of the crane versus the tractor;
- Remove de support leg;
- Engage the fertilizer spreader. Move the tractor on reverse speed, lower the three points linkage to help coupling the crane's lower sheets with the lower arms of the fertilizer spreader;
- Couple one of the link sheets delivered with the machine, in order to obtain the working angle at the desirable height;
- Mount the cardan, the fertiliser spreader's accessories and link the hydraulic hoses to the tractor (the crane needs two double effect systems).

To disengage the crane from the tractor, proceed the reverse way of the engagement operations mentioned above. The support leg must be necessarily placed in an 'On' position whenever the crane is parked.

ATTENTION:

Respect the adjustment instructions of the cardan, which are supplied with the fertiliser spreader.

5- TECHNICAL SPECIFICATIONS

MODEL	GM-1000	
LIFTING CAPACITY (kg)	1000	
SOIL MAXIMUM DEPTH (m)	4,45	
ARM TOTAL LENGTH (m)	2,50	
WEIGHT (kg)	280	

6- WORK

In the particular case of handling fertiliser sacs with the hydraulic crane, one must respect the following points, in order to ensure a safe operation:

- Once the hydraulic crane is placed near the load to be transported, lower the three point linkage until the machine's support feet touch the ground;
- Open / close and lift / lower the telescopic arm so that the chain remains absolutely vertical versus the bag;
- Stop and break the tractor:
- Bring down the tractor e fix the hook to the end of the bag;
- After starting the tractor's engine, lift and slowly close the boom, to place the bag over the deposit of the fertiliser spread;

- Lower the arm to place the bag inside the deposit.
 Transport the load slowly and without sudden movements to avoid swinging or other interferences with the fertiliser spreader;
- Empty the bag;
- Place the machine at the right height for work operation.

ATTENTION

Never walk or stay under a hydraulic crane.

7- MAINTENANCE

AFTER EACH WORK JOURNEY:

- Control and change every damaged hose;
- Lubricate every grease nipple of the crane;
- Wash the crane, particularly when the machine contacts the fertiliser.

IN LONG IMMOBILIZATION PERIODS:

- Lubricate the machine and close the hydraulic cylinders.

8- SECURITY REGULATIONS

Working with tractors and agricultural machines requires that the operator knows what he is doing and that much care is taken. He must be conscious and cautious of the dangers which imprudence can cause, not just to the agricultural enterprises which they run. In an attempt to avoid accidents, therefore, we advise the following security rules:

- 1 In attaching any implement to the tractor, use only the place which the respective manufacturer advised for the operation, verifying is carried out in order.
- 2 Whenever, for reasons of repair, checks, set-up or otherwise, you need to get under the implement, never do so without the relevant props.
- 3 In activating the hydraulic system of the tractor, first check that the implement, trailer, frontal load, or otherwise, in movement, can not reach anyone.
- 4 Never authorise the transport of passengers on the implement, whether during work time or on the road, equally not behind ploughs, or grass cutters, as during their work, as stones, sticks etc. could fly up out of the machines.
- 5 The implement should never be detached while in movement. If it has to be done, immobilise it well and stop the motor.
- 6 Always use protective guards on transmissions linked to the power sockets of the tractor.

- 7 Use counterweights on the front or on the front wheels, as, with implements mounted, the steering of the tractor will be very light and it will have a tendency to uplift. Double check the maintenance during a job, manoeuvres or on the road. It could also be necessary to mount a rear weight to the tractor when operating with a frontal load and the load being carried is particularly heavy.
- 8 Do not forget that the dangers increase with the incline of the terrain on which it is working or being moved. Exercise maximum caution, paying attention to accentuated inclinations, especially lateral ones, which should be avoided.
- 9- When you work with trailers, you should never forget to:
- Check your brakes;
- Attach the emergency brake device to the tractor;
- Plug in the electric installations;

Also remember that:

- The trailer must always brake before the tractor;
- All load, especially high load, must be well fastened down:
- The two pins to fix down the box must be in the right places, depending on the side which you need to balance;
- The balancing must be light, and without jolts;
- You may only transport persons when legally authorised to do so, when they are seated, and with all the coverings closed.

- 10 Whenever in transit on a public highway remember that:
- On leaving an agricultural property, or a private road, you never have priority of entry into a public road. All other road users, coming from the left or right, have priority over you;
- You must respect the highway code and all signs and light signals;
- The stabiliser switch for the two brake pedals must be on:
- The stabilisers or the chains must be tight so that there can be on lateral oscillation of the mounted implements, which must only be lifted to the height necessary to avoid contact with the ground (about 0,30 cm) or, if the tractor has a hydraulic blockage, until this switches on;
- Speed of travel must be reduced whenever the state or the relief of the road requires it;

If you take this advice which we give here, we hope that you will neither have, or cause any accidents. This is what GALUCHO wishes for, and expects from their clients.

9- ORDERING SPARE PARTS

We advise you, as farmers, that replacing worn out parts at the right moment will avoid abnormal mobilization of the machine (with the consequent loss of money and time), and will cheapen the units of work produced, and prolong its useful, economical life-span.

It is always better to use genuine GALUCHO parts, because:

- They are perfectly interchangeable;
- They guarantee correct adaptation and functioning.

While they could, in some cases, be a little more expensive in terms of initial cost, they always end up more economical than any other.

To simplify and speed up the supply of spare parts, it is recommended, in the consumer's own interests, that this procedure is followed:

- (1) Indicate the model, series, and number written on the identification plate, which each machine has
- (2) Outline the quantities, codes, and designation of the parts, as indicated by the catalogue of parts.
- (3) To avoid errors, written confirmation of orders eventually transmitted by telephone is indispensable.
- (4) To facilitate the completion of orders, all demands must be made separate from other correspondence, and indicate the destination and the transport to be used. In case the client has no current account with our company, he should enclose with his order, the amount that corresponds to the cost of

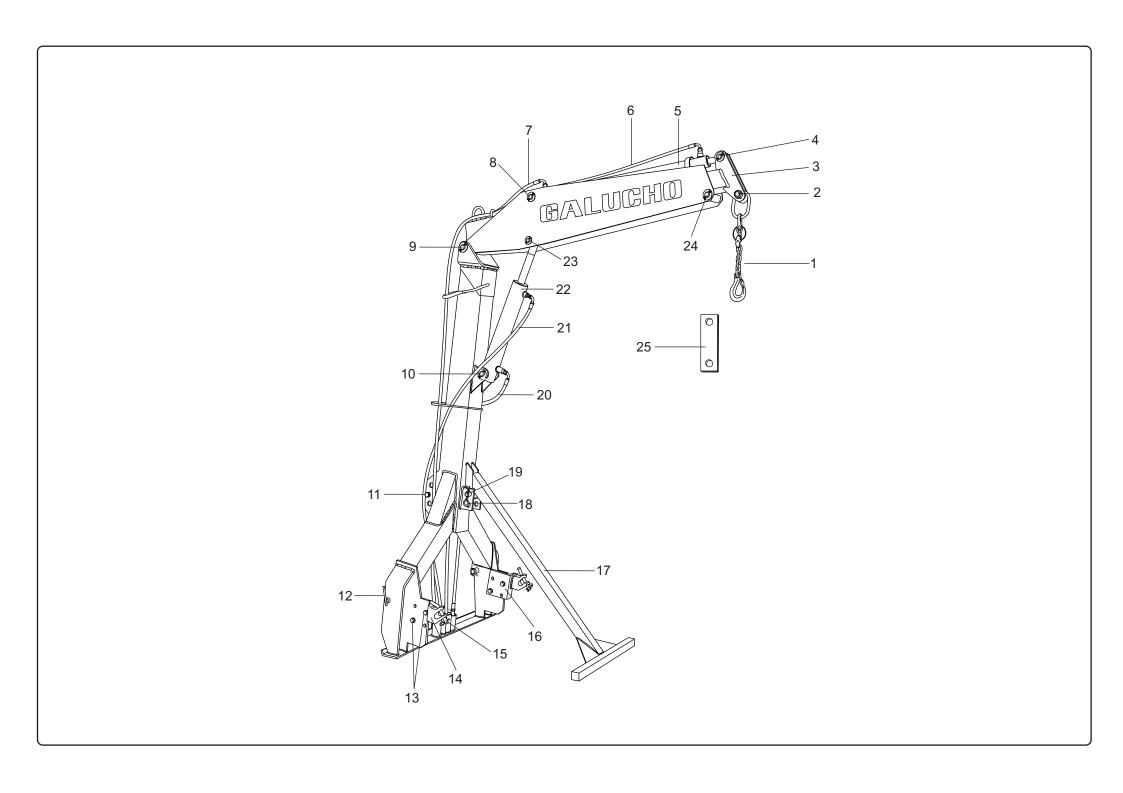
If the demand omits a preference, in terms of means of transport, we will use that which we feel to be most advantageous.

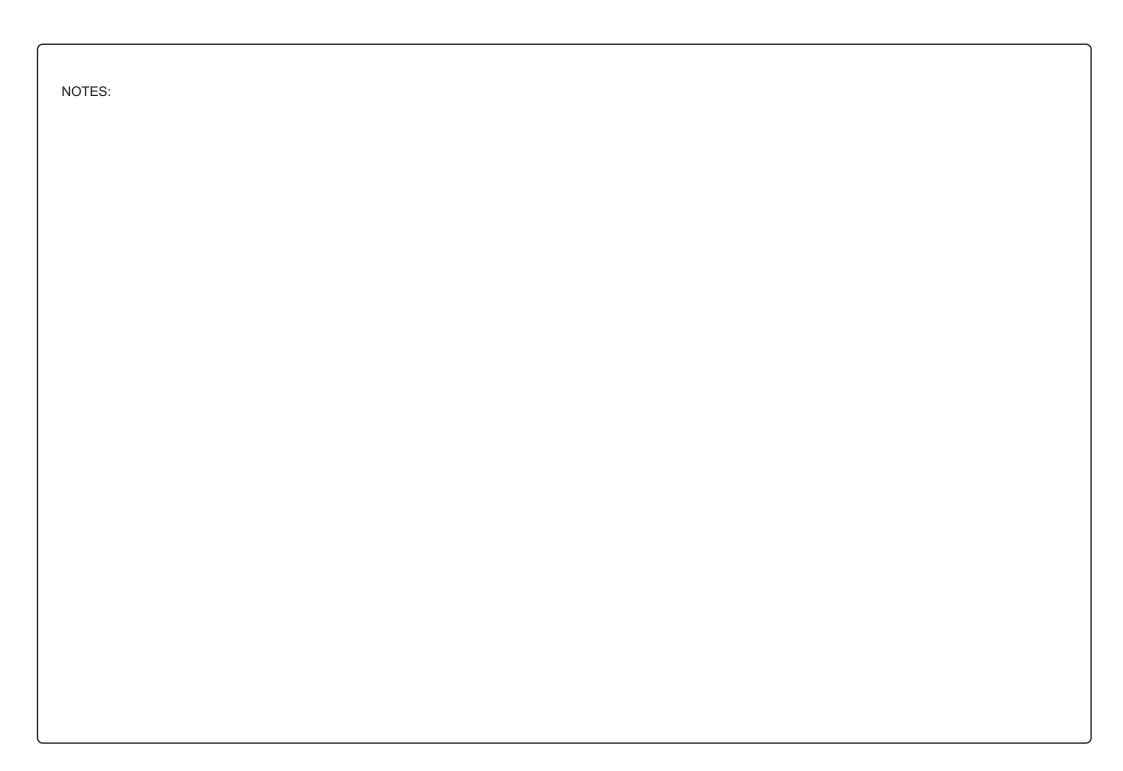
- 5- The parts can be picked up from our warehouses, in S. João das Lampas, or placed by us in the railway or any other station, in Sintra or Lisbon.
- 6- The return of parts or equipment whose parts have stopped being made, or which are still part of our production line but have been altered, will not be accepted.

The identification plates GALUCHO indicate the following specifications, which will be useful when ordering spare parts.



1- MODEL 2- SERIE 3- NUMBER





GALUCHO - INDÚSTRIAS METALOMECÂNICAS, S. A.

(Fundada por JOSÉ FRANCISCO JUSTINO)

AV. CENTRAL, N.º4

2705-737 S. JOÃO DAS LAMPAS - SINTRA, PORTUGAL
TELEF.:(351) 21 960 85 99
FAX: (351) 21 960 85 99

www.galucho.pt info@galucho.pt