DELTA ORDEÑOS

MOBILE TYPE

MILKING MACHINE

Gasoline Type

USER MANUAL

Before using machine, surely read this manual

The located exposure time that was located by Minisitry of Industry and Trade is 10 years.

TS/12600/April 2008 is complies with the standarts of
"authorized services-machines which is using in livestock- rules"

CONTENTS

ATTENTION !	Use grounding plugs Don't touch water to your engine. Before running your machine read your user's manuel carefully.

MILKING MACHINE and technical properties

GASOLINE ENGINE POWER	7 HP
GASOLINE ENGINE SPEED	3600 rpm/min
MILKING CAPACITY	10 -12 cow (per/hr)
BUCKET TYPE	40 L
CLAW TYPE	240 cc
VACUUM PUMP	70’
PUMP FLOWRATE	250 L/min
PULSATOR	60 / 40
WEIGHT	57,3 Kg
DIMENSIONS	53 x 124 x 112 cm
FIBER VANE	5.90 x 43 x 70 mm

BEFORE MILKING

Pic.1

When the system is runned under this circumstances,it mustn't let air in.

Starting the engine up by powering on.(look pic.1)
While the engine is running vacuum indicators (vacuum meters) are starting to raise.

When the indicator reaches the level of 0.4-0.5 bar ,open the tap which related to the milking buckets. Under this circumstancesthe vacuum will a bit increase and then raise again. (look pic.2)

Pic.2

If there isn't any raise in the vacuum, this means that you can't fit the bucket cover correctly or you may forget to open milk claw stopcocks.

Pic.3

When the vacuum reaches the level of 0.4-0.5 bar , open the taps that related to the pulsator again.

As they are opened,the pulsator starts to run. The throwing action of the pulsator at the teat cups is between 60 to 40 per minute.

Under this circumstances ,the clockwise of the vacuum will Show the level of 0.4-0.5 bar again. This is the most suitable level for milking.

BEFORE RUNNING

Close all taps that are related to the pulsator.
Switch off the milk claw key.
Close the cover of milking bucket.

HOW START THE GASOLINE ENGINE

TURN THE ENGINE STOP SWITCH TO THE **ON** POSITION.

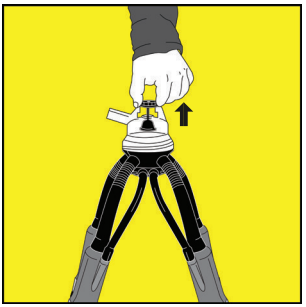
TURN THE VALVE OF GASOLINE AND TURN THE SWITCH **B** POSITION.

TURN THE CHOKE SWITCH FROM **A** (OFF) POSITION TO **B** (ON) POSITION.

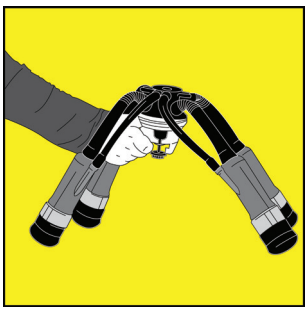
Pull up the starter pulling handle to high level and pull up quickly to arrow directive image. turn back the rope pulling handle slowly.

WHEN THE ENGINE RUN TURN THE CHOKE SWICH TO **A** (OFF) POSITION.

INSERTING THE TEAT CUPS



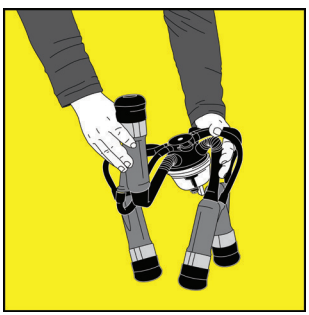
- Disjoint the milking claw and clip it as it is showed by the Picture. Under this circumstances, teat cups will hang down and start to work as a vacuum seal off.
- Open the transparent claw keys of milk claws as in the figure.
- Be careful while holding the unit straight as in the figure. Short milk tubes must be bend in such a way that they won't loose air.



- Take one of the taet cups in your left hand and provide it to bend by pushing it down and clip it to the udder.
- Don't skip another act before inserted teat cups don't wrap the udder completely.

Inserting the teat cups without rotating. Otherwise,the udder will shrink and the milk flow will cut down.

- Under this circumstances ,you should pull the teat cups softly and then pick it up. Be careful if the teat cups are inserted correctly.
- Both vacuum and throwing motion are not strange to a cow. It likes as if a calf sucks a cow.



- Milking time can be changeable according to the cow's milk yield. This time normally lasts between 3.5 to 8.5 minutes.
- You can watch whether milking is finished or not from transparent claw covers and milk flows in the hose. If there isn't any flow from the udders , you can see the stop of milk flowings at the transparent claw covers.

  When the milk flowing are stopped at all udders you scan switch off milk claw key. So , you can stop the relation of vacuum with the udders. You can remove teat cups from the udders softly.

- Removing from the udders ,take the teat cups on your arms. So you can prevent to the teat cup touch on the ground and spill the milk if there is some in the cups.

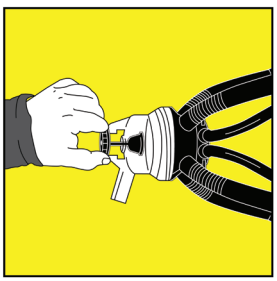
Without distorting of the holding shape open and close te surface gasget of the teat cup. So, you can provide to flow the remaining milk in the taet cups,milk claws,and hose to the bucket.

- You should port he collected mill in the milk bucket another bucket.(stop the machine, switch off the milk claws an then pour the vacuum. Otherwise,bucket air cover won't open.)

- Put the milk bucket into its place.

If you have no other milking process , you can clean your machine.

Cleaning the machine



- You must clean your machine after milking.

Cleaning parts

- Milk claws
- Teat cup gums
- Hoses
- Buckets
- Bucket covers

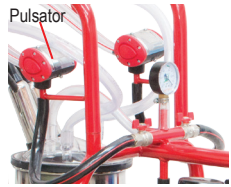
Necessary equipments during cleaning

- A bucket of warm water (50 C)
- Cleaning brush
- Sponge or a piece of cloth

Cleaning processes

- Run your machine like in milking
- Open the tab raleted to the pulsator.
- Open the tab related to the milk bucket.

Warning: Before using different type of cleaner material or disinfectant material , ask your vet.

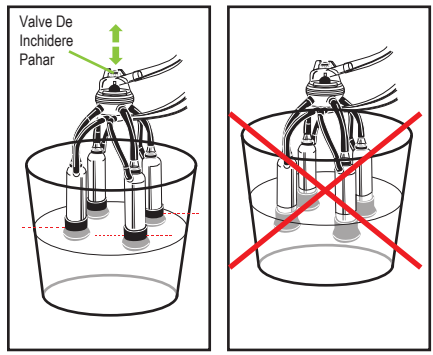


Be careful that there isn't any water enterance to the pulsator.

- When the vacuum raises, submerge the teat cups to the bucket which has warm water in it and open and close the milk claw key for a feww times.
- Clean the teat cups with brush and sponge.

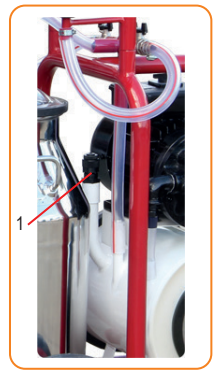
Don't remove teat cup gums for cleaning. Don't wet the engine.

Caution : Dont dip whole liner set to water. Dip only mouth of liners(2cm is enough). Otherwise, because the motor is vacumming, water may go to inside of Electric motor and there can be some damages which can not be handled by warranty.



SETTINGS; Vacuum Settings

- You can keep stabile an ideal vacuum for milking with spring-loaded vacuum setting regulator which mounted to vacuum tank.
- If vacuum increases, you should tighten the setting regulator, if it raises,you should loose it.



Don't remove teat cup gums for cleaning.
Don't wet the engine.

An ideal vacuum for milking is between -0.4 to -0.5 bar.

PULSATOR(VACUUM) SETTING:

- The vacuum should be 60-40 per minute. The pulsator sounds like a clock while it is running.
- To setting; you can watch the motion putting your thumb in the teat cup. You can set the vacuum number per minute by tighten or loosen the pulsator's regulating screw.

The vacuum will slow down if you tighten the setting screw to the right and it will speed up if you will loosen it to the left.(you must use allen wretch of 3mm for this process. Otherwiswe, the setting screw will be out of order.)

MAINTENANCE

- Clean your vacuum tank in every 3 months. After cleaning the vacuum tank cover ,put it on its own place again.
- Tap the collected water in the tank from bleed port under the vacuum tank.

- While the machine is running, the gum plug of the tank s by itself. You should be careful that this plug must be always at the its place. Otherwise this tank prevents the vacuum raises by taking air in it from this part.
- You must control teat cup gums strictly. If there becomes a cruck on the gums change them immediately. Otherwise the milk which is leaking goes to pulsator and causes a breakdown.

SUGGESTIONS

- Keep always your machine clean. Use grounding plugs while running your machine.
- Don't leave your machine without oil. The vacuum pump is semi or full oily pallet.
- It 's heating is normal while running. If there is a breakdown electric motors, you should check it to a electrician. If there is a breakdown in our pumps ,you should contact to our service directly.
- Don't allow your milk buckets overflow during milking. To empty your milk buckets after every milking. If this happens milk will sucked into the vacuum tank and cause a breakdown.
- During the milk overflowing,you should careful not to hit the bucket mouth anywhere and not bend . Otherwise the cover won't open correctly, vacuum won't come into existence . If this happens ,it will be renew.
- Control your machine frequently. Renew all old parts.(for instance,teat cup gum, bucket cover,bucket seal etc.)
- If you need any items, have any questions, or perhaps an experience you would like to share , please give us a call.
- Change your machine's oil in ever 3 months.

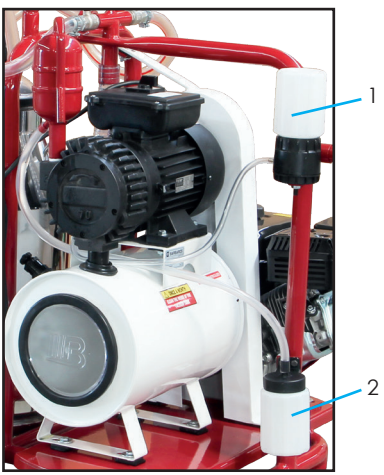
OIL CHANGE PROCESS

For Oil Cup systems

Need to follow up the decreased clean oil in the No.1 OIL-TANK and continue to operation by adding additional oil depending on decreased quantity.

When the No.2 OIL-TANK filled by waste oil, please discharge all.

CAUTION : DO NOT USE WASTE OIL AGAIN !



To avoid any mistake on spare parts order,
please inform part names and code numbers correctly

GUIDE FOR TROUBLESHOOTING YOUR MILKING MACHINE AND SOLUTIONS

TROUBLE	CAUSES	SOLUTIONS
PULSATOR DOESN'T WORK Remove the pulsator. Remove it on a smooth surface and be careful no to lose small parts.	The circulating hose that is stated between pulsator and teat cubs may not be attached.	Attach them.
	The hose may be dirty.	Clean it.
	The regulating screw of the pulsator may be turned to the right far more.	Turn it to the left.
	The diaphragmatic pleura of the pulsator may be located on dead point.	Tighten the hose between the pulsator and milk picking buckets.
	Pulsator may be dirtied by milk ,dust or water.	Clean it by removing.
	The diaphragmatic may be torn,swell like a ballon or wear out.	Renew it with new one.
	The filter which is in the pulsator may be dirty.	Clean it by removing.
PULSATOR DOES WORK SLOWLY	The regulating screw of the pulsator may be turned to the right a lot.	Turn it a bit to the left.
	The air outlet may be dirty.	Clean it.
	The milking system works in a low level	Raise the vacuum .
	Vacum ends of the collection parts or vacuum tab of plumbing system may be dirty.	Clean it.
	The hose between pulsator and collection parts may not be attached correctly.	Correct the hose.
	The hose may be torn or broken.	Renew it.

TROUBLE	CAUSES	SOLUTIONS
PULSATOR GOES WRONG OR WORKS IRREGULARLY	The teat gums or he hose of pulsator may be torn or loosen.	Tighten or renew it.
	There is a loosen on pulsator body and regulating screw body.	Tighten them in suitable measure.
	The air filter may be dirty.	Control the air canals and clean it.
THE MANOMETER DOESN'T SEEM OR THE VACUUM DOESN'T RAISE ON SUFFICIENT LEVEL	There may be a air leak on the parts where the vacuum circulates.	Correct it.
	The vacuum regulator may be located incorrectly.	Correct it.
	Vacuum regulator may be dirty.	Clean it.
	Yo may milk countlessly and overflow the milk in buckets or mix cleaning water to the pump.	Remove the pump. Wash and clean it with diesel oil and move it again.(services can make it for you)
MILKING TEAT CUPS FALL EASILY	The vacuum may be low.	Provide suitable vacuum (-0.4/-0.5 bar)
	There is a trouble in milking teat cup gums and milk hoses.	Renew them.
	Milk lines may be lose its flexibilty.	Renew them.
THE MILK FLOWING FROM MILK HOSES ARE SO SLOW	The hoses may be blocked.	By pushing on the surface cover of taet cup gums softly and provide it to absorb air in it.
THE BUCKET COVERS DON'T CONFLICT	The cover seals may lose its flexibility.	Correct it by waiting them in a hot water about 15 minutes.
	The cover seals may be broken.	Change them.
	The seal doesn't fit well.	Change them.

NOTICE | **Electric motor and Aluminium stainless steat Inox NOT UNDER WARRANTY**

DELTA
ORDEÑOS

PANAMERICANA SUR KM 44,LASSO SAN JUAN DE PASTOCALLE COTOPAXI ECUADOR