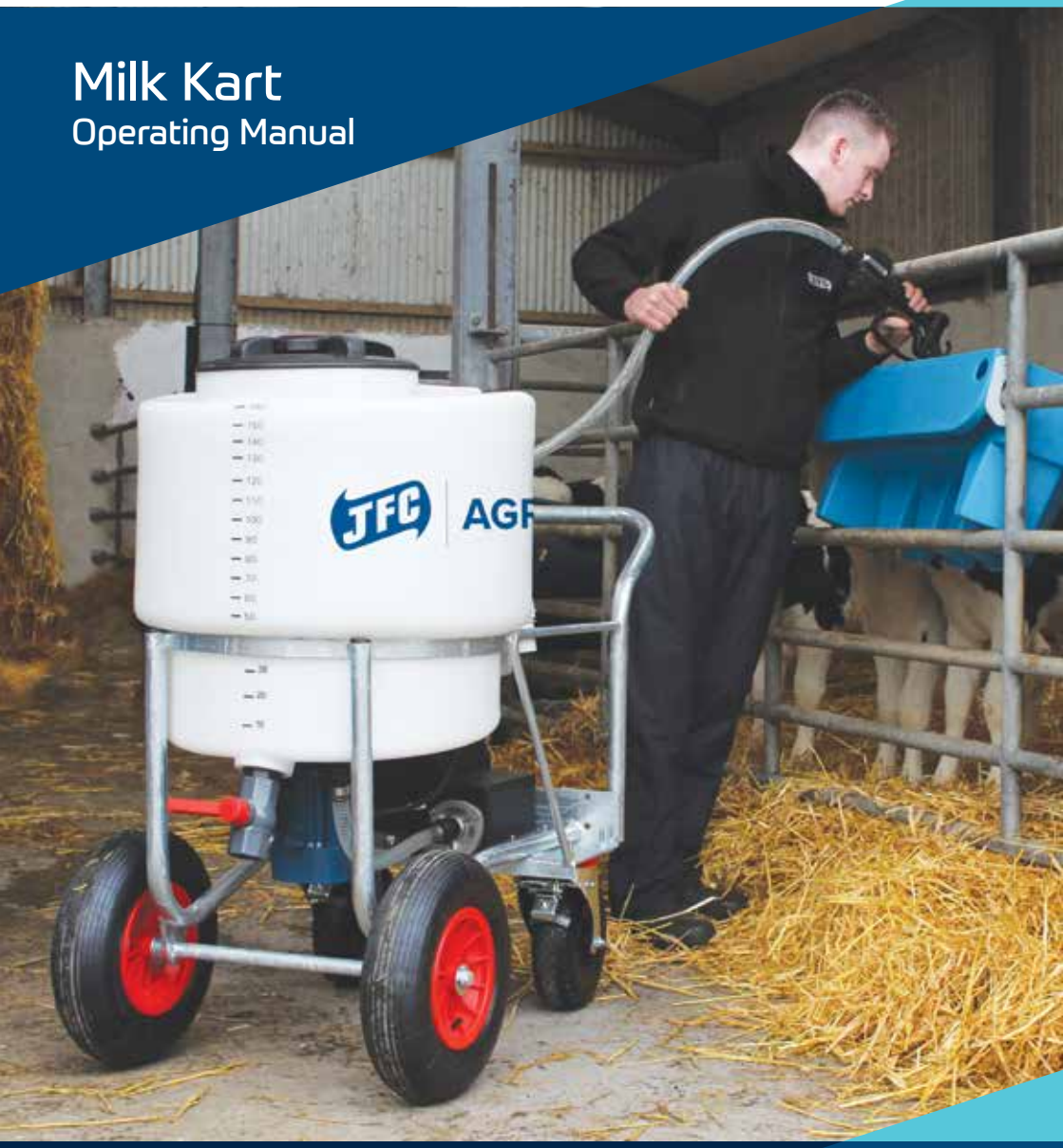
JFC | AGRI

Milk Kart
Operating Manual



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Introduction

The JFC Milk Kart is a perfect solution for transporting bulk quantities of milk on the farm.

The Kart is fitted with 2 corrosion resistant pneumatic wheels and 2 braked swivel castor wheels to deliver superior manoeuvrability and smooth handling. The Milk Kart is available with a motorised mixer, eliminating the need to hand mix milk replacement powder.

A Pumped version is also available allowing total control of flow using the hand held dispenser. JFC's Milk Kart range is an ideal solution for quick and efficient calf feeding.

Before Use

- Ensure the tank is clean and empty of any foreign objects.
- Ensure the tap on the tank is closed.
- Ensure the unit is in good condition without any visual signs of damage or neglect.
- Ensure both tyres are pumped and contain a minimum 25psi.
- Ensure the unit is on level ground with brakes locked.
- Ensure the main motor switch is turned off (if applicable).

Electrical Requirements

- The electrical supply is: 230V AC at 50HZ.
- The unit must be connected to an industrial socket (e.g. 16 Amp) fitted with an RCD (Residual Current Device) that will trip due to any earth leakage.
- Do not fit any other plug type to the Milk Kart (e.g. domestic plug).
- All supplies must be grounded with an earth cable in-line with national guidelines.
- Extension leads are not recommended but if necessary they must be a minimum of 1.5mm^2 cable cross section and no longer than 10 meters. Leads must be fitted with industrial plugs and sockets (no domestic plugs).
- The cable must be earthed and in good condition.

Transport/Shipping

- When the Milk Kart is in transport ensure that it is secured to the truck or trailer using suitable straps or lashings. Brakes must be applied (fitted on MK170, MK170M, MK170P & MK170MP).
- Ensure the tank is empty before securing the Milk Kart onto the truck or trailer.

Pre-Towing Checks

Pre-towing checks should be completed by the operator before towing the ATV Milk Kart. Below is a list of recommended checks;

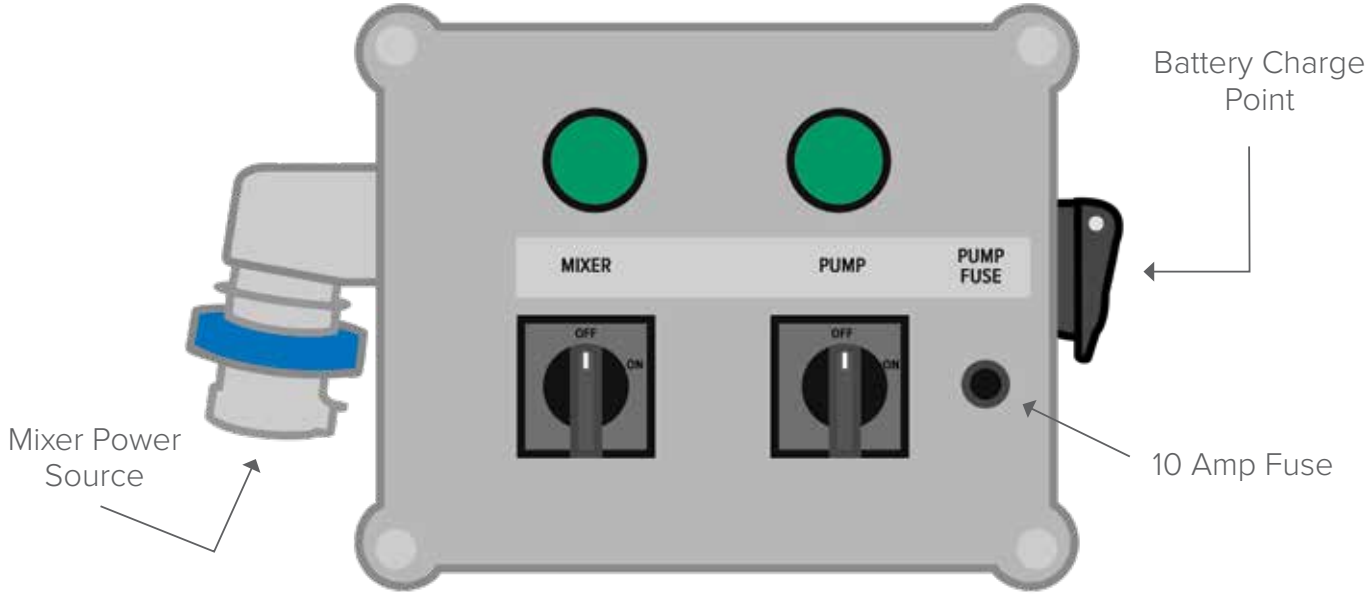
- Check the condition of the tyres to ensure that there are no signs of leaks or cracks, the tyre is sufficiently inflated and there is sufficient tread left.
- Check to ensure that all power supply cables have been disconnected.
- Check to ensure that chocks are removed from wheels.
- Check that the jockey wheel is secured in the raised position.
- Check to ensure that hitch is secure on the drawbar and that the hitch has no defects.

Safety Requirements

- When the Milk Kart is stopped apply castor brakes.
- Do not put your hand in the tank unless unplugged.
- Drive with caution at slow speeds and do not exceed the maximum towing speed of 25 km/h.
- Do not exceed the recommended incline limit of 10 degrees.
- Do not exceed the towing capacity of your ATV.
- Drive slowly, take care when tank is partially filled, avoid sudden steering or braking manoeuvres.
- The Milk Kart is only to be filled after it has been hitched onto the ATV drawbar, likewise only remove the ATV Milk Kart from the drawbar when the tank is empty.
- When not in use, park the ATV Milk Kart on a smooth level surface and apply wheel chocks to wheels.
- The milk kart range is not for highway use.
- Passengers are not allowed on the Milk Kart.
- Do not modify or alter the Milk Kart in any way (especially guarding), doing so may expose operators to hazards.

Operating Use

- Fill tank with the required amount of water at the desired temperature (Minimum 30 litres of water at a maximum temperature of 50°C).
- Plug in mixer to a certified electrical supply (230V AC).
- To start mixer, turn the control box switch to the on position.
- While mixer is rotating, slowly add milk powder to the water (do not insert milk powder without having a minimum of 30L of water in the tank).
- Switch off the mixer once the milk powder is thoroughly mixed which is typically 2 - 4 minutes (over mixing can lead to fat and protein separation).
- Milk can either be dispensed through the outlet valve, located at the bottom of the tank, or with the dispensing nozzle, which is available in pumped versions.
- In order to dispense through the nozzle, the battery must be fully charged and the pump switched on.
- To measure the exact quantity of milk being dispensed, use the digital flow meter on the nozzle.
- The Milk Kart should be rinsed out with clean water after every use - as per the Daily Maintenance Requirements on page 8.
- Charge battery regularly as required.
- Keep mixer motor, battery charger and battery dry at all times to avoid damage.
- Ensure all cables and pipework are neatly routed to/from the Milk Kart range avoiding trip hazards.
- The Milk Kart should be stored in a secure location when not in use to prevent unauthorised operators gaining access to the machine.
- Do not put your hand in the tank unless unplugged or while the mixer in operation.
- Do not touch the mixer disk while it is in operation.
- Do not put in milk powder before water.
- The Milk Kart Range is intended to handle milk formula, water and whole milk only. Using the machine for other purposes will be considered misuse.



Troubleshooting Guide

Pump not working

- Ensure that the battery is fully charged.
- Ensure the filter and hoses are not blocked.
- Check that the fuse has not blown.
- Ensure that the pump is not air locked.

Mixer not working

- Check the power source and ensure all connections are fully attached.

Flow meter not working

- Ensure that the flow meters internal fan is not obstructed and recalibrate the instrument according to the instruction leaflet.
- Check the batteries in the back of the flow meter.

Slow flow on the nozzle

- Ensure the flow meter is not blocked.
- Ensure that the hose is not kinked or damaged.
- Ensure the battery is fully charged.

NOTE TO THE OPERATOR

Any fluids spilled while filling or drawing should be cleaned up immediately!

Daily Maintenance Requirements

- Rinse with clean water after each use to remove all traces of milk.
- Everyday after use, half fill tank with water, add dairy detergent solution at recommended rate and run mixer for 30 seconds.
- If fitted with pump, use pump to discharge the water.
- Ensure system is thoroughly drained to prevent damage in cold conditions.
- Check filter before each use to ensure it is clean. Filter is located inside the bottom of the tank - as shown below.
- Do not power hose to clean.
- Do not run pump dry or with a partially or fully clogged filter.
- It is not recommended to run the pump for long periods of time when not in use.

Storage Requirements

- At the start and end of each season, fully clean the unit - as per Daily Maintenance Requirements on page 8.
- Store inside in a clean dry environment protected from frost.
- At the start and end of each season, fully charge the battery on a Pumped Milk Kart and carry out a visual inspection.
- Fully charge the battery before putting into storage.

MK1703
170L Milk Kart

TECHNICAL SPECIFICATIONS	
Tank Capacity	170L
Outlet Valve	1½” Female BSP
Hinged Lid Opening	350mm

NO.	CODE	COMPONENT	QTY.
1	MK170-B	170L Bottle	1
2	MK170-F	170L Milk Kart Frame	1
3	CST10S	10” Flat Free Swivel Wheel	2
4	HL350	Geoline Lid 350mm	1
5	BV1-1/2”	1½" Valve Fitting	1
6	WBW3	Plastic Wheel, 1” Plain Bearing	2

MK170M3
170L Milk Kart With Mixer

TECHNICAL SPECIFICATIONS	
Tank Capacity	170L
Outlet Valve	1½” Female BSP
Hinged Lid Opening	350mm
Mixer Motor Size	0.55kW
Mixer Voltage	220 Vac

NO.	CODE	COMPONENT	QTY.
1	MK170-B	170L Bottle	1
2	MK-ECM-3	Electrical Control Box M/O	1
3	MK170-F	170L Milk Kart Frame	1
4	NGAM1B	Mixer Motor	1
5	CST10S	10” Flat Free Swivel Wheel	2
6	HL350	Geoline Lid 350mm	1
7	BV1-1/2”	1½" Valve Fitting	1
8	WBW3	Plastic Wheel, 1” Plain Bearing	2

MK170P3
170L Milk Kart With Pump

TECHNICAL SPECIFICATIONS	
Tank Capacity	170L
Outlet Valve	1½" Female BSP
Hinged Lid Opening	350mm
Pump Flow Rate	36L/min
Pump Voltage	12 Vdc
Hose Size	¾"
Lucas Battery	12V 42Ah

NO.	CODE	COMPONENT	QTY.
1	MK170-B	170L Bottle	1
2	MK-ECP-3	Electrical Control Box P/O	1
3	MK170-F	170L Milk Kart Frame	1
4	50840	Centrifugal Pump	1
5	CST10S	10" Flat Free Swivel Wheel	2
6	HL350	Geoline Lid 350mm	1
7	F0040710A	Digital Flow Meter	1
8	F00630000	Nozzle	1
9	BV1-1/2"	1½" Valve Fitting	1
10	12v42Ah	Lucas 12V Battery	1
11	MK-BB	Battery & Pump Cover	1
12	WBW3	Plastic Wheel, 1" Plain Bearing	2

MK170MP3
170L Milk Kart With Mixer & Pump

TECHNICAL SPECIFICATIONS	
Tank Capacity	170L
Outlet Valve	1½" Female BSP
Hinged Lid Opening	350mm
Mixer Motor Size	0.55kW
Mixer Voltage	220 Vac
Pump Flow Rate	36L/min
Pump Voltage	12 Vdc
Hose Size	¾"
Lucas Battery	12V 42Ah

NO.	CODE	COMPONENT	QTY.
1	MK170-B	170L Bottle	1
2	MK170-F	170L Milk Kart Frame	1
3	MK-EC-3	Electrical Control Box MP	1
4	NGAM1B	Mixer Motor	1
5	50840	Centrifugal Pump	1
6	CST10S	10" Flat Free Swivel Wheel	2
7	HL350	Geoline Lid 350mm	1
8	F0040710A	Digital Flow Meter	1
9	F00630000	Nozzle	1
10	BV1-1/2"	1½" Valve Fitting	1
11	12v42Ah	Lucas 12V Battery	1
12	MK-BB	Battery & Pump Cover	1
13	WBW3	Plastic Wheel, 1" Plain Bearing	2

A-MK340
340L ATV Milk Kart

TECHNICAL SPECIFICATIONS	
Tank Capacity	340L
Outlet Valve	1½" Female BSP
Hinged Lid Opening	455mm

NO.	CODE	COMPONENT	QTY.
1	MK340-AF	340L ATV Milk Kart Frame	1
2	QHTC	Hitch	1
3	JW	Jockey Wheel FC240	1
4	HL455	Geoline Lid 450mm	1
5	MK340-B	340L Bottle	1
6	BV1-1/2"	1½" Valve Fitting	1
7	MG10W	10" Plastic Mudguard	2
8	QW-WB	Quad Wheels With Bearing	2

A-MK340M3
340L ATV Milk Kart With Mixer

TECHNICAL SPECIFICATIONS	
Tank Capacity	340L
Outlet Valve	1½" Female BSP
Hinged Lid Opening	455mm
Mixer Motor Size	0.55kW
Mixer Voltage	220 Vac

NO.	CODE	COMPONENT	QTY.
1	MK340-AF	340L ATV Milk Kart Frame	1
2	MK-ECM-3	Electrical Control Box M/O	1
3	NGAM1B	Mixer Motor	1
4	QHTC	Hitch	1
5	JW	Jockey Wheel FC240	1
6	HL455	Geoline Lid 450mm	1
7	MK340-B	340L Bottle	1
8	BV1-1/2"	1½" Valve Fitting	1
9	MG10W	10" Plastic Mudguard	2
10	QW-WB	Quad Wheels With Bearing	2

A-MK340P3
340L ATV Milk Kart With Pump

TECHNICAL SPECIFICATIONS	
Tank Capacity	340L
Outlet Valve	1½" Female BSP
Hinged Lid Opening	455mm
Pump Flow Rate	36L/min
Pump Voltage	12 Vdc
Hose Size	¾"
Lucas Battery	12V 42Ah

NO.	CODE	COMPONENT	QTY.
1	MK340-AF	340L ATV Milk Kart Frame	1
2	MK-ECP-3	Electrical Control Box P/O	1
3	50840	Centrifugal Pump	1
4	QHTC	Hitch	1
5	JW	Jockey Wheel FC240	1
6	HL455	Geoline Lid 450mm	1
7	MK340-B	340L Bottle	1
8	F0040710A	Digital Flow Meter	1
9	F00630000	Nozzle	1
10	BV1-1/2"	1½" Valve Fitting	1
11	12v42Ah	Lucas 12V Battery	1
12	MK-BB	Battery & Pump Cover	1
13	MG10W	10" Plastic Mudguard	2
14	QW-WB	Quad Wheels With Bearing	2

A-MK340MP3
340L ATV Milk Kart With Mixer & Pump

TECHNICAL SPECIFICATIONS	
Tank Capacity	340L
Outlet Valve	1½" Female BSP
Hinged Lid Opening	455mm
Mixer Motor Size	0.55kW
Mixer Voltage	220 Vac
Pump Flow Rate	36L/min
Pump Voltage	12 Vdc
Hose Size	¾"
Lucas Battery	12V 42Ah

NO.	CODE	COMPONENT	QTY.
1	MK340-AF	340L ATV Milk Kart Frame	1
2	MK-EC-3	Electrical Control Box MP	1
3	NGAM1B	220V Pedrolla Mixer	1
4	50840	Centrifugal Pump	1
5	QHTC	Hitch	1
6	JW	Jockey Wheel FC240	1
7	HL455	Geoline Lid 450mm	1
8	MK340-B	340L Bottle	1
9	F0040710A	Digital Flow Meter	1
10	F00630000	Nozzle	1
11	BV1-1/2"	1½" Valve Fitting	1
12	12v42Ah	Lucas 12V Battery	1
13	MK-BB	Battery & Pump Cover	1
14	MG10W	10" Plastic Mudguard	2
15	QW-WB	Quad Wheels With Bearing	2

Milk Kart Parts List

CODE	COMPONENT	MK1703	MK170M3	MK170P3	MK170MP3	A-MK340	A-MK340M3	A-MK340P3	A-MK340MP3
MK170-F	170L Milk Kart Frame	●	●	●	●				
MK340-AF	340L ATV Milk Kart Frame					●	●	●	●
MK170-B	170L Bottle	●	●	●	●				
MK340-B	340L Bottle					●	●	●	●
WBW3	Plastic Rim Wheel, 1” Plain Bearing	●	●	●	●				
QW-WB	Quad Wheels With Bearing					●	●	●	●
HL350	Geoline Lid 350mm	●	●	●	●				
HL455	Geoline Lid 450mm					●	●	●	●
CST10S	10” Flat Free Swivel Wheels	●	●	●	●				
MG10W	10" Plastic Mudguard					●	●	●	●
QHTC	Hitch					●	●	●	●
JW	Jockey Wheel FC240					●	●	●	●
PR4	Aluminium Pop Rivets (4.8 x 16mm)	●	●	●	●	●	●	●	●
DOF3	1½" Drain Off Fitting (no seal)	●	●	●	●	●	●	●	●
BV1-1/2”	1½" Valve Fitting	●	●	●	●	●	●	●	●
NGAM1B	Mixer Motor		●		●		●		●
NGAM1B-F10	Milk Kart Flange 10mm SS		●		●		●		●
NGAM1B-F6	Milk Kart Flange 6mm SS		●		●		●		●
MK-Seal-4mm	Milk Kart 4mm EPDM Seal		●		●		●		●
MK-EC-3-PLTE	Electrical Control Plate M		●		●		●		●
MK-ECM-3	Electrical Control Box M/O		●				●		
MK-EB-LD	Control Box Extension Lead		●		●		●		●
MK-ECP-3-PLTE	Electrical Control Plate P/O			●				●	
MK-ECP-3	Electrical Control Box P/O			●				●	
MK-EC-3	Electrical Control Box MP				●				●
50840	Centrifugal Pump			●	●			●	●
12v42Ah	Lucas 12V Battery			●	●			●	●
BC-12vDC	Numax DC12V4a Battery Charger			●	●			●	●
19PHSW	2m of 19mm (¾") Clear PVC Hose Spiral Wire			●	●			●	●
BC32SS	Hose Clips (band-it) 31.8mm			●	●			●	●
DOF1	1 Drain Off (fitting black)			●	●			●	●
DOW2	Drain Off Washers (mm) Ø52 (outside) x Ø32 (inside) x 3 height			●	●			●	●
MK-BB	Battery & Pump Cover			●	●			●	●
F00630000	Nozzle			●	●			●	●
F0040710A	Digital Flow Meter			●	●			●	●
M20BCGLN	M20 Black Cable Gland Long Thread			●	●			●	●

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