OPERATING INSTRUCTIONS AND SAFETY NOTES

Barrel pump for urea (AdBlue®)



FMT Swiss AG

81 633 932 A801 GB

FMT Swiss AG

This documentation is exclusively intended for the operating company and their staff.

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Operating instructions translation

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We reserve the right to make design and product modifications, which serve to improve the product.

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1. Introduction

1.1 Preface



IMPORTANT

- Read and observe the operating instructions carefully before use.

Our staff will be pleased to provide support if you have any questions about the product.

Yours sincerely, FMT Swiss AG

1.2 Obligations of the personnel

Before they start to work, all persons who are entrusted with work with the barrel pump for urea (AdBlue®) are obliged:

– To follow all applicable regulations on occupational safety and accident prevention.

Please observe the following instructions in the interest of all concerned:

- Refrain from any unsafe working methods!
- In addition to this documentation, keep to all generally accepted safety rules, legal provisions as well as all other binding rules regarding occupational safety, accident prevention and environmental protection!
- Wear appropriate protective clothing in accordance with the work to be done!
- Perform only work for which you have been sufficiently trained and instructed!
- Only genuine spare parts as well as original tools and auxiliaries of the manufacturer are allowed to be used in order to ensure the functional safety and maintain the warranty coverage.

1.3 Symbols in this manual

1.3.1. Structure of the safety notes

The warning notes have the following structure:



SIGNAL WORD

Type and source of the hazard
– Consquences of non-compliance with the notes.
– Measures to avoid that risk.

Depending on the danger level, different signal words are used:

Signal word	Danger level	Consequences of non-compliance
CAUTION	Possibly dangerous situation	Minor bodily injury
ATTENTION	Possibly dangerous situation	Damage to material property

1.3.2. General symbols

Symbol	Meaning
■	A small black square indicates the work you have to perform.
–	The dash denotes lists.

2. Intended conditions of use

- The barrel pump may only be used to discharge urea (AdBlue®).
- The temperature of the pumped liquid must be between -5 °C and +35 °C.
- The pumping of explosive liquids is prohibited.
- Use in the food industry is prohibited.
- The user is liable for any damage resulting from non-intended use.



DANGER

Risk of injury and material damage from explosive vapors!

- **Never use the pump to deliver explosive fluids such as petrol or other fluids with similar flashpoints!**

3. Risks in handling AdBlue® solution

The AdBlue® concentrate is non-flammable, non-explosive and not oxidizing.



NOTE

- For cleaning, flush equipment with water. Dispose of released contaminated fluid. Dispose of released contaminated fluid according to the statutory provisions. In general, dilution with water is sufficient.
- **AdBlue® is corrosive to non-ferrous metals.**
- **Avoid skin and eye contact. In case of contact with the eyes, rinse the eyes with plenty of drinking water and consult a physician.**
- Observe the safety sheet for AdBlue®.

4. Technical data

Pump type		**Hand pump 13 040; 13 040 001; 13 040 002; 13 040 950 13 040 951; 13 040 952**
Delivery rate	(l/stroke)	0,4
Delivery rate at 60 strokes per minute	(l/min)	24
Pumping media		Urea, AdBlue®
Usage		barrels 60/200/220 l
Telescopic suction tube 3-pieces	(mm)	355-955
Barrel screw couplings		depending on model (G 2" / S 56 x 4 / S 69,5 x 5,5)
Materials of parts in contact with liquid		
Pump body		ABS / PA 6
Seals		FKM + HNBR

5. Assembly

Check and prepare all parts before assembly.

- Mount the telescopic suction tube to the pump. See fig. 5.-1 (**1**)
- Fit the curved discharge spout with the union nut to the pump. See fig. 5.-1 (**1**)
- Screw in the pump lever. See fig. 5.-1 (**1**)
- Screw the barrel screw coupling into the barrel, hand-tighten. See fig. 5.-1 (**2**)
- Align the pump to the desired position and press downwards. See fig. 5.-1 (**2**)

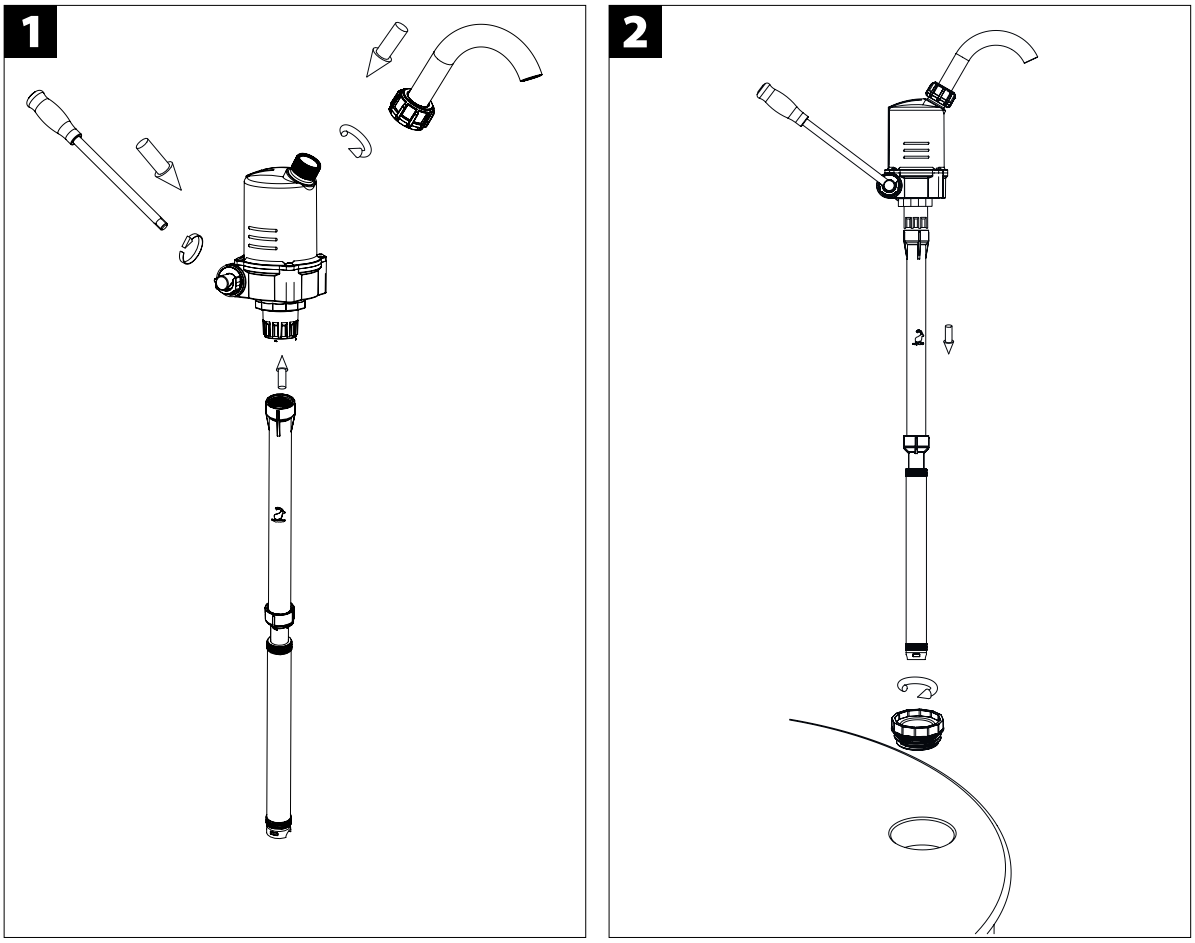


Fig. 5.-1: Assembly example

6. Commissioning

- Before starting up, check the pump for proper installation and visible damage.
- Operate the lever several times until the pump sucks.

NOTE

To avoid crystal formation, clean the pump with warm water after use.

7. Disposal

The operating company is responsible for the proper disposal of the barrel pump.

Dispose of the different materials in accordance with all industry-specific, local, regional and federal regulations.

Only qualified personnel is authorized to disassemble and dispose of the urea (AdBlue®) barrel pump.

8. Repair/Service

The barrel pump was developed and produced according to the highest quality standards.

Should a problem develop, despite all quality controls, please contact our customer service:

FMT Swiss AG
Tel +49 9462 17-216
Fax +49 9462 1063
service@fmtag.ch

9. Exploded view of the barrel pump for urea (AdBlue®) with discharge spout

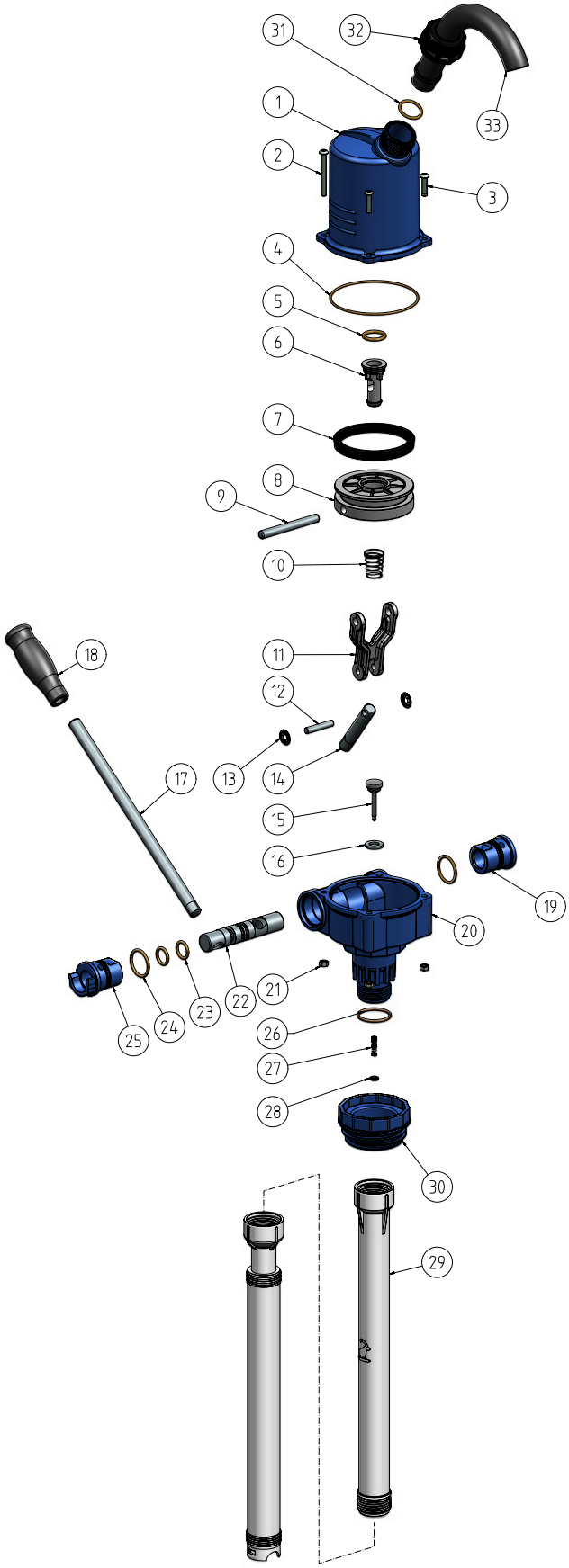


Fig. 9.-1: Exploded view of the barrel pump for urea (AdBlue®) with discharge spout

Pos.	Quantity	Description	Item number
1	1	Pump cylinder	81 493
2	2	Lens head screw M5x45	81 514
3	2	Lens head screw M5x20	81 636
4	1	O-ring HNBR 70-84x2	81 509 878
5	1	O-ring HNBR 70-18x3	81 516 878
6	1	Piston valve	81 502
7	1	Piston seal	81 519 877
8	1	Piston	81 501
9	1	Piston pin	81 504
10	1	Compression spring conical	81 508
11	1	Con rod	81 503
12	1	Con rod pin	81 505
13	2	Lock washer	81 507
14	1	Connecting rod	81 506
15	1	Valve cone	87 982
16	1	Flat gasket	87 920
17	1	Lever	81 494
18	1	Handle	81 492
19	1	Bearing sleeve-close	81 499
20	1	Pump housing	81 496
21	4	Hexagon nut	86 773
22	1	Pump shaft	81 500
23	2	O-ring HNBR 70--14x2.5	81 517 878
24	2	O-ring HNBR 70--24x2.5	81 515 878
25	1	Bearing sleeve-open	81 498
26	1	O-ring FKM 80	89 111 878
27	1	Compression spring	87 932 889
28	1	Locking washer	00 159 889
29	1	Telescopic suction tube	13 094
30	1	Barrel screw coupling G 2“	81 511
31	1	O-ring	86 921 878
32	1	Coupling nut G 1"	82 857 012
33	1	Curved discharge spout, plastic	81 112

Tab. 9.-1: Overview of components for fig. 9.-1

10. Exploded view of the barrel pump for urea (AdBlue®) with delivery hose and nozzle

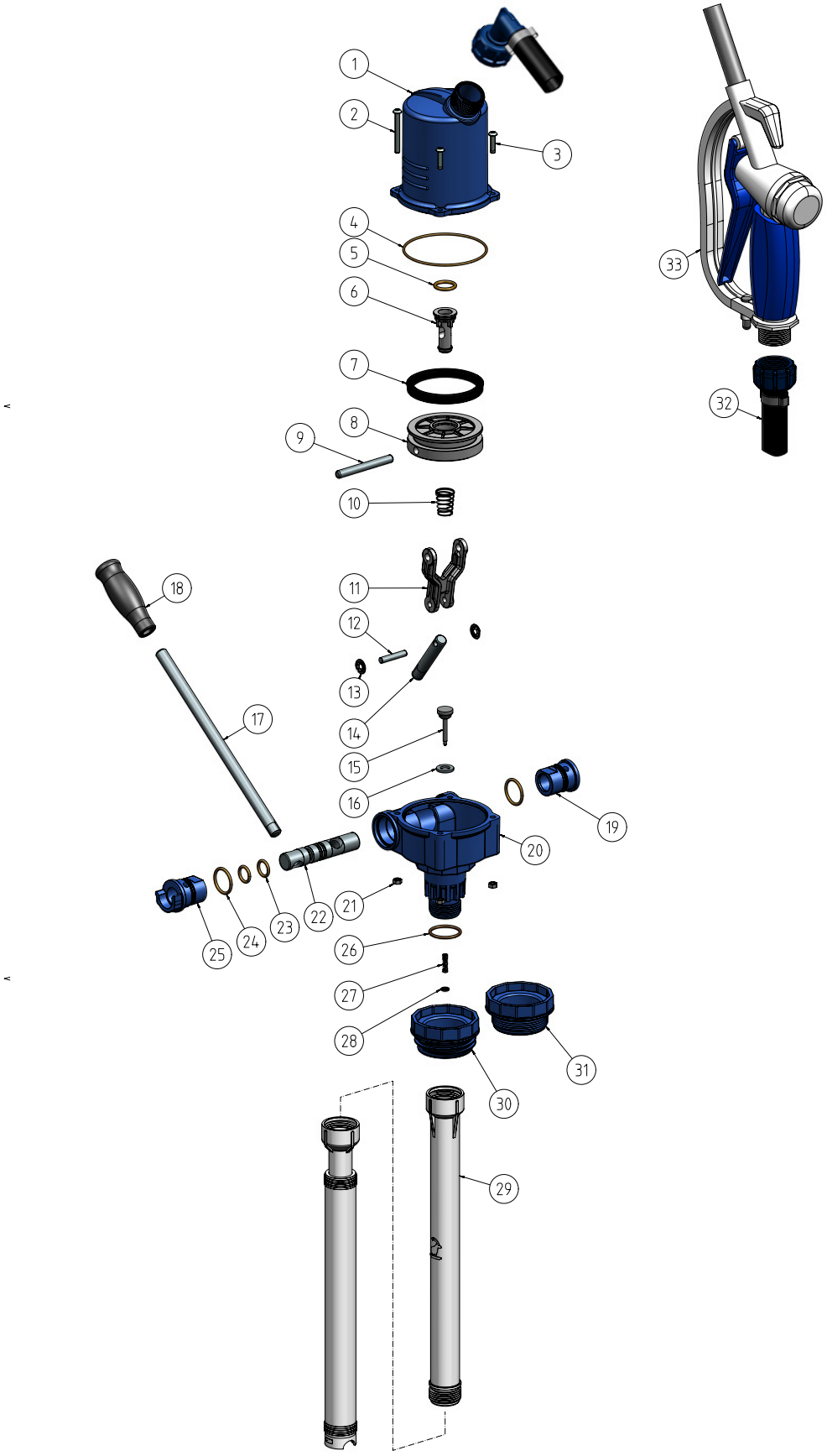


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17	1	Lever	81 494
18	1	Handle	81 492
19	1	Bearing sleeve-close	81 499
20	1	Pump housing	81 496
21	4	Hexagonal nut	86 773
22	1	Pump shaft	81 500
23	2	Lever	81 517 878
24	2	Handle	81 515 878
25	1	Bearing sleeve-open	81 498
26	1	O-ring FKM 80	89 111 878
27	1	Compression spring	87 932 889
28	1	Locking washer	00 159 889
29	1	Telescopic suction tube	13 094
30	1	Barrel screw coupling S 64 x 5	81 512
31	1	Barrel screw coupling G 2“	81 511
32	1	Delivery hose DN19 - 6m -G1“	25 671
33	1	Nozzle G 1“	23 161 878

Tab. 10.-1: Overview of components for fig. 10.-1

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