Marine Technic a/s

disperator®

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Service Instruction for disperators

500 EXCELLENT Series

(510-515-520-530-550-575)

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AUTHORITY

Dismantling and assembly of the disperator to flushing water, waste water and electrical services must be done by **authorised persons and in accordance to valid local regulations.**

DISMANTLING

1. Switch the current off and remove all the main fuses from the three phases.

2. Disconnect the disperator cable from the contactor (-38).

3. Loosen the waste water connection from the end shield (-13).

4. Disconnect the disperator (6 screws, with nuts (-22) and possible fixing (-28/V) or (-28/B).

5. Turn the disperator up side down to remove the housing (-15). Unscrew the 2 screws (-26). Loosen the cable nipple to allow for free length of cable inside housing. Loosen the strap (-17), 2 nuts (-25) and turn the disperator right side up again.

6. Remove the hood (-16) by loosening the remaining 2 nuts (-25).

7. Remove the stationary shredder (-01) by levering against the large tooth with a crowbar supported against the rotary shredder (-02) near to one of the two shredder blades.

8. Hold the rotary shredder with, for example, a pipe wrench and loosen the axle nut (-07).

9. Remove the rotary shredder (-02). Use two crowbars opposite one another under the outer edge supported against the edge of the end shield (-13).

10. Remove the V-ring seal (-03/01). Loosen the four fixing screws (-23) in the end shield (-13) and lift off.

    Inspect washer (-03/00) for possible wear caused by V-ring seal and replace washer if necessary.

11. Turn the end shield up side down and dismantle the locking ring (-03/03) by using pointed pliers. Press out the two axle seals (-03/02).

    Inspect the contact surface of the carrier (-18) for wear caused by the axle seals. Replace the carrier if necessary.

12. Terminate dismantling here when only replacing the stationary and rotary shredders.

    The V-ring seal (-03/01) and the two axle seals (-03/02, with special grease (-04) together with stationary seals (-05) and (-08) must be replaced with every overhaul.

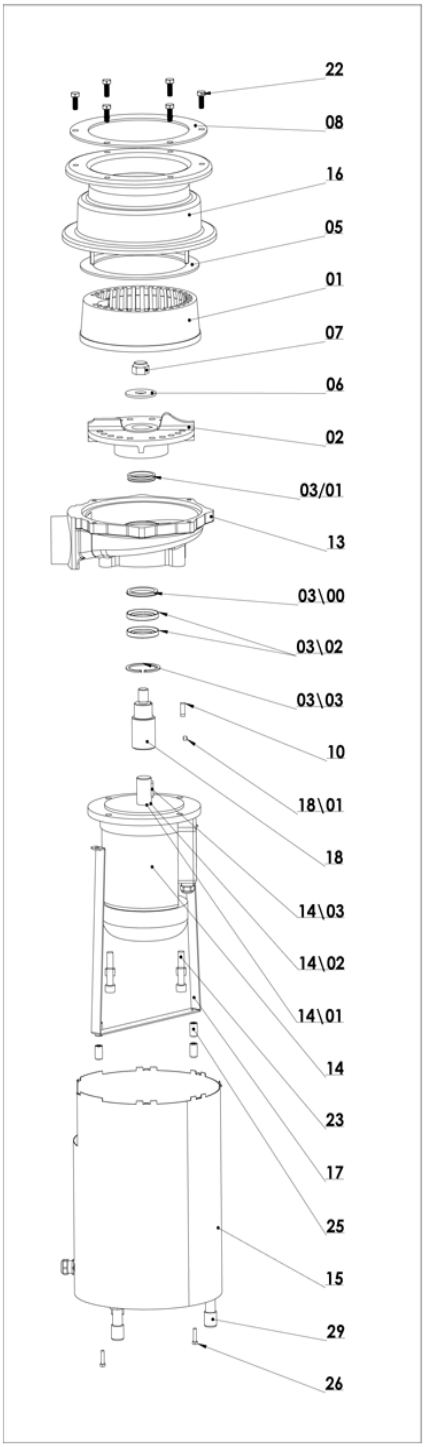
13. Loosen fixing screw (-18/01). Remove carrier (-18) carefully in order not to damage the motor bearings. If necessary, replace damaged bearings (-14/02) together with the motor axle seals (-14/01).

14. When replacing the motor make sure that the new motor (-14) has the same classification and quality as the original motor (compare rating plates). Drill two holes in the upper motor flange to allow for ventilation and drainage of possible water condensation (see existing motor).

    For 1,5kW and 5,5kW motors, the two holes can not be drilled in the motor flange. Instead, two ventilation holes are drilled into the lower part of the end shield (-13). See existing end shield.

    Replacement motors with drainage holes are available for immediate delivery from DISPERATOR.

disperator®



When ordering spare parts always state the model of the disperator and the item number of the article required, e. g. 515-01 for stationary shredder on Model 515

-01 Stationary shredder
-02 Rotary shredder
-03/00 Washer for V-ring seal
-03/01 V-ring seal
-03/02 Axel seal, 2 pcs, with stainless spring
-03/03 Locking ring, SgH
-05 Seal for stationary shredder
-06 Washer
-07 Axel nut
-08 Seal for hood flange
-10 Key for carrier
-13 End shield
-14 Motor with drained upper flange *)
-14/01 Axel seal, 1 pc. motor drive side, 1 pc. motor fan side *)
-14/02 Bearing,1 pc. motor drive side, 1 pc. motor fan side *)
-14/03 Key for motor shaft *)
-15 Housing **)
-16 Hood
-17 Strap for housing **)
-18 Carrier
-18/01 Fixing screw for carrier, SK6SS M6x6
-22 Screw and nut, 6 pcs, stainless, M6S M8x16 and M6M M8
-23 Screw, 4 pcs.
510 - 520: MC6S M10x25
530 - 575: MC6S M12x30
-25 Nut, 4 pcs, washer, 4 pcs
510 - 520: LM6S M6, 4 pcs,
530 - 575: LM6S M8, 4 pcs,

*) Voltage and manufacture required when ordering

-25 For older MB-, MC- and ML-assemblies(without -15,-16,-17)
* 510-520/MB, MC, ML:
Screw, 4 pcs. M6S M6x90
Nut, 4 pcs. M6M M6
* 530-575/MB, MC, ML:
Screw, 4 pcs. M6S M8x120
Nut, 4 pcs. M6M M8
-26 Screw and washer, 2 pcs, stainless M6S M5x20 **)
-28/V Torque protection bar for fixing disperator to the wall / bulkhead **)
-28/B Torque protection clamp, 3 pcs for fixing disperator legs to floor / floor plate **)
-29 Adjustable leg, 3 pcs. (520-575 only) **)

Spare parts not shown in drawing

-04 Special grease for seals and carrier
-09 Rubber sealing compound
-31 Jam release wrench for rotary shredder, -02
-35 Solenoid valve, ½" BSP, Female incl. coil *)
-36 Solenoid valve coil *)
-37 Line strainer, ½" BSP, Female
-38 Contactor with motor protector and coil *)
-39 Limit switch
-42 Contactor coil *)
-43 Rubber protector with 90mm inlet opening

**) Not required for MB-, MC- and ML-assemblies (disperator in free standing cabinet)

SERVICE PACKAGE 1

Items to be replaced when carrying out a preventative maintenance.

Article number: -03/00, -03/01, -03/02, -03/03, -04, -05, -06, -07, -08, -09, -10.
If required -36, -39 and -42.

SERVICE PACKAGE 2

Items required when replacing parts subject to wear are items included in Service Package 1 plus the following.

Article number: -01, -02, -22, -23, -25, -26, -18, -18/01.

ASSEMBLY

15. **Clean all components carefully.** Assemble in reverse order. Note especially the following.

16. Before pressing the carrier (-18) onto the motor axle, remove the motor fan hood and support the axle at fan end in order to prevent damage to the motor bearings. Mark the depth of hole in the carrier onto the motor axle. Coat the motor axle and the carrier hole with protective grease or sliding lacquer to prevent rusting or jamming. Press the carrier all the way **down to the mark** on the motor axle. Apply Loctite and tighten the fixing screw (-18/01) through the M6-hole in the carrier.

17. Place washer (-03/00) in the end shield (13). The edge on the outer diameter of the washer shall be nearest to the two axle seals (-03/02).

    Apply a coat of oil on the outer diameter of the two axle seals (-03/02) to give easier fixing into the end shield. Press the axle seals into position using a tool having the **same outer diameter** in order that the seals shall not be damaged. The seals shall be placed with the groove and stainless spring **upwards towards the grinding unit.** The seals are fixed by fitting the locking ring (-03/03) into the groove in the end shield.

    Grease the axle seals and pack the space between the two seals with the **special grease, (-04) supplied by DISPERATOR.** Grease the sealing face of the carrier (-18) using the same grease before fitting the end shield (-13) with axle seals over the carrier. **Care should be taken not to damage the lips of the axle seals.**

18. Grease the V-ring seal (-03/01) and washer (-03/00) using grease (-04) from DISPERATOR. Fit the V-ring seal over the carrier (-18) with the seal lip against the washer (-03/00).

19. Coat carrier axle (-18) and hole of the rotary shredder (-02) with protective grease or sliding lacquer. Check that the carrier key (-10) is positioned correctly and fit the rotary shredder on the carrier axle. Apply a layer of rubber sealing compound (-09) over joint between shredder and carrier axle. Fit the washer, (-06) and tighten up axle nut (-07).

20. Apply a thin layer of rubber sealing compound (-09) in the seat of the end shield (-13). Position the stationary shredder (-01) with the large tooth at the outlet of the end shield, and press down tightly. Secure the stationary shredder to the end shield by hammering a number of punch marks around the joint between these two articles.

21. Fit the hood (-16) so that its arrow mark is positioned centrally to the waste outlet on the end shield. Secure the hood with the two hexagonal nuts (-25) and turn the disperator up side down. Secure the strap (-17) using the two remaining hexagonal nuts (-25). Tighten alternately these four nuts with an even and moderate pressure to compress the rubber seal (-05). From the inside of the stationary shredder (-01) pull the projecting lip of the seal with a pair of pliers to check that it sits tightly between the hood and the stationary shredder. Alternatively, control with a feeler gauge.

22. When mounting the disperator below sink, working top or freestanding cabinet / trough, check that the machine and assembly are fixed in order to withstand the starting torque of the motor and the expected torque if the grinding unit becomes jammed. A torque protection bar (-28/V) or torque protection clamps (-28/B) can for example be used.