

Diesel Aerator 16 Impellers 14 HP



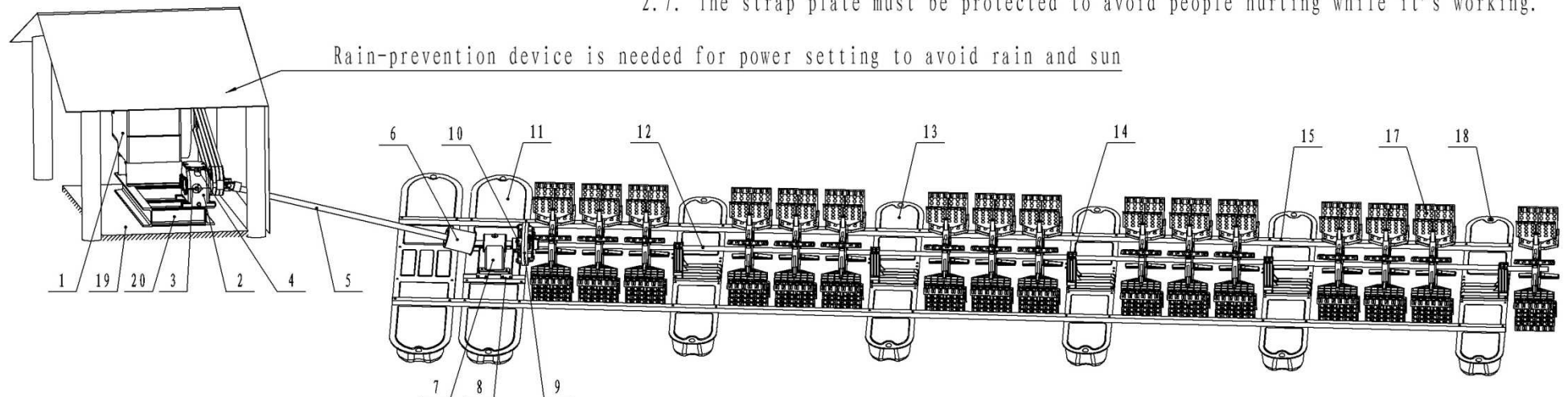
Operation Instrument for Multi-Impeller Paddlewheel Aerator

1. Brief Introduction:

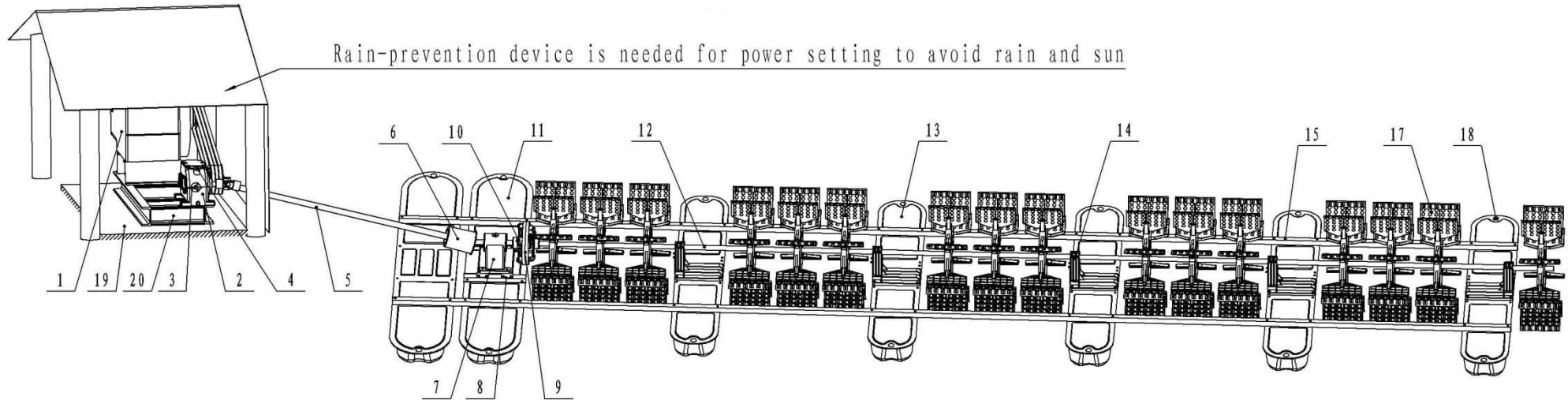
The aerator has free combination for Multi-impeller paddle wheel aerator, i.e. the impeller of aerator can be increased or reduced randomly (10-22 entries) according to the oxygen capacity and aquiculture density. It can be driven by diesel engine for the aqua farm lack of electric power, as well as by electromotor.

2. Notice for installation:

- 2.1. Pay attention to the angle between universal transmission shaft with horizon (<10 degree) and the height of reducer crankshaft above horizon (75CM).
- 2.2. Suggested to choose a hard soil texture land to install the pedestal and reducer or to consolidate the earth before installation. Recommended to make concrete platform and fix by screws to avoid power setting and reducer sticking in the mud.
- 2.3. Some fix poles are needed to insert in 18 (the hole of fix) to prevent the float from moving when working.
- 2.4. Rain-prevention device is needed for power setting to avoid rain and sun.
- 2.5. Add oil to key points of universal transmission shaft monthly
- 2.6. Add lubrication oil to 2(reducer) and 7 (molten bearing base) before turning on
- 2.7. The strap plate must be protected to avoid people hurting while it's working.



1. Diesel engine 2. Reducer 3. Clutch holder 4. Oil hole 5. Universal transmission shaft 6. Shaft cover
7. Molten bearing base 8. Double pole frame 9. Big rubber 10. Cross flange 11. Big float 12. Transmission shaft
13. Small float 14. Rubber bearing base 15. Square pipe 17. Impeller 18. The hold of fix pipe 19. Platform 20. Pedestal



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15. Square pipe
17. Impeller
18. The hold of fix pipe
19. Platform
20. Pedestal

3. Assembly and installation:

A) For water part:

3.1 Assembly of float:

Assemble 11 (big float) 13 (small float) 15 (square pipe) as figure 2 showed and then assemble 7 (molten bearing base) 8 (double pole frame) and 14 (rubber bearing base)

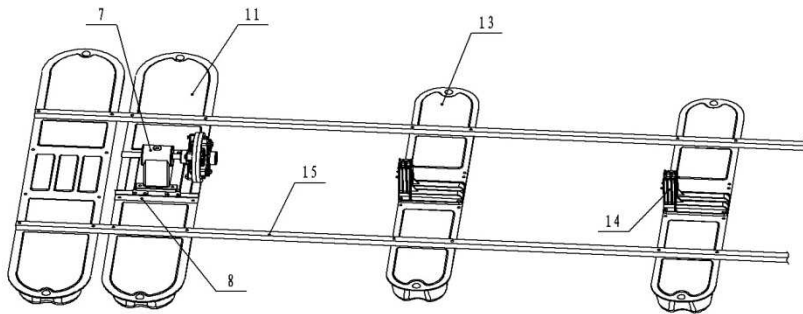


Figure 2

3.2 Assembly of impeller group:

3.2.1 Assemble 17 (impeller) together with 14 (rubber bearing base) as a group and put it into 12 (transmission shaft) as figure 3 showed (the impellers not fixed at the moment)

3.2.2 Place assembled floating boat and impeller group the proper site as figure 1 showed and align 14-14 (rubber bearing base) as figure 3 showed. (the distance between impellers floats can be adjusted if need and then tighten the screws and fix impellers)

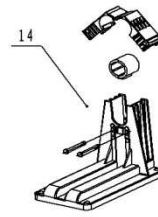
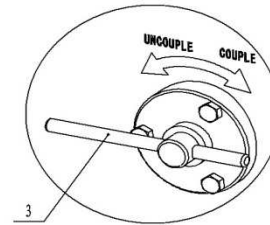


Figure 3



A BIG PICTURE

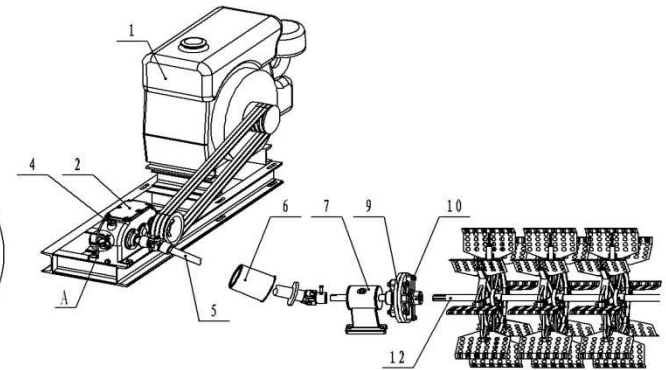


Figure 4

3.3 Assembly of impeller group and universal transmission shaft

3.3.1 join 10 (cross flange) and 12 (transmission shaft) as figure 4 showed, through keyway and tighten them with screws

3.3.2 Assemble 5 (universal transmission shaft) and 7 (molten bearing base) by splice and tighten them with screws as figure 4 showed. After assembled well, the float part can be put on the water. Notice that since the other side of 5 (universal transmission shaft) will be connected the reducer, so it must be away from water

B) For land part

Assembly and fix the reducer, diesel engine and pedestal on the platform as figure 1 and figure 4 showed; tighten them with screws and set up the triangle strap well (adjust the distance for proper degree of strap tightness)

Assemble 2 (reducer) and 5 (universal transmission shaft) as figure 4 showed (joint reducer and universal transmission shaft through splice and tighten them with screws). The trial running while turning on the diesel engine, the clutch holder must be swung to the uncouple condition and make the diesel engine starting without loading; after that, return the clutch holder to couple to make the impeller rotation while it's low rotate speed. If the multi-impeller paddle wheel aerator is driven by electromotor, the clutch holder is not needed.

General Instructions

1. The diesel motor should work in acceleration of $\approx 1425-1450$ Rpm.
2. The Paddlewheel aerator was designed to work in ≈ 100 Rpm (it will obtain with motor acceleration of $\approx 1425-1450$ Rpm)
3. Note- the Bearing and shaft support should regulated to the upper hole



4. Paddles deep, should be $\approx 5-6$ cm , (second hole as shown).



Extended aerator to 18 meters long



Extension of the Paddlewheel aerator to 18 meters

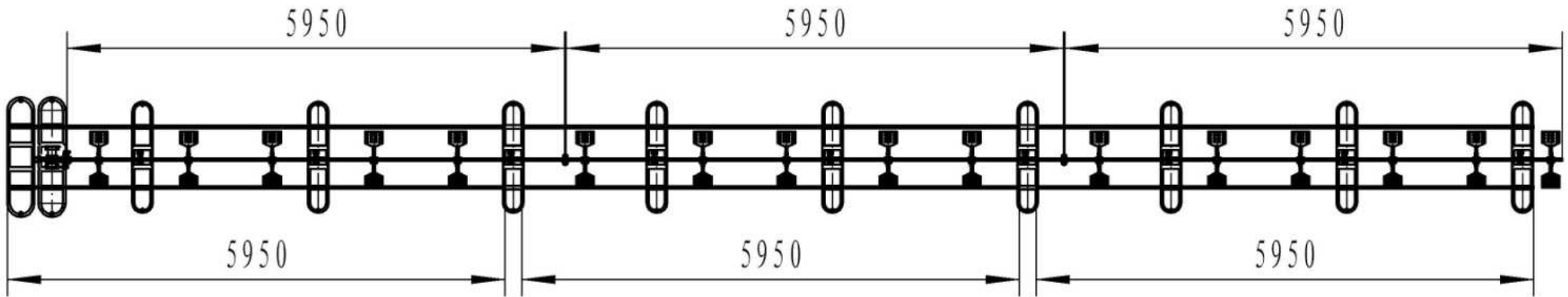
The extended Paddlewheel Aerator – 18 meters long is based in the original aerator with 6 meters long, the aerator have 16 Impellers distributed along a floating unit with two additional transmission shafts (three in total), 6 meters each – $3 \times 6 = 18$ meters.

Additional components to the original Paddlewheel Aerator :

- FLOAT #3- 4 units
- BEARING SUPPORT- 4 units
- TRANSMISSION SHAFT- 2 units
- SQUARE PIPE- 4 unidades (2 sets)
- FRAME CONNECTIONS- “L” PIPE- 4 units
- CI SHAFT CONNECTOR THREE HOLES- 2 units

The Diesel motor is the same supplied with the original 6 meter aerator.

Distributions of the Floats and Impellers along the floating unit- 18 meters long



CONNECTIONS

1. The connection of each transmission shaft (each shaft is 5950 cm long) – the shaft are connected with the CI SHAFT CONNECTOR THREE HOLES



2. Connecting the square pipes (frame) on the #3 floats where is necessary, in order to achieve 18 meters long, the connection should be with the “L” pipes provided.

