

zu beziehen bei
 sold by
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D16
D161
 250 ml

Federsicherheitsventil
 (Wassereinfüllung)
 spring loaded safety valve
 (filler cap)
 soupape de sécurité à
 ressort (bouchon de remplissage d'eau)
 Veiligheidsventiel (water-vullen)
 Fjädersäkerhetsventil
 (vattenpåfyllning)

Trichter
 funnel
 entonnoir
 Tratt
 trechter

Dampfpfeife
 steam whistle
 sifflet de vapeur
 stoomfluit
 Angvissla

Wasserstand Maximum
 maximum water level
 niveau d'eau maximum

Wasserstand Minimum
 minimum water level
 niveau d'eau minimum
 minimum waterstand bij vullen

Brennerschieber
 burner slide
 brûleur
 Branderschuif
 Bränslebehållare

Dampfabsperrventil
 cutout valve
 soupape d'arrêt de vapeur
 stoomafsluiter
 Angspärrventil

Wichtig!

Die Maschine niemals ohne Federsicherheitsventil betreiben. Nur WileSCO-Dampfmaschinenöl und Trockenbrennstoff tabletten verwenden.

Important!

Never operate the machine without safety valve. Only use WILESCO steam engine oil and dry fuel tablets!

Important !

Ne pas faire fonctionner la machine sans soupape de sécurité. Utiliser seulement de l'huile pour machine à vapeur WILESCO. Utiliser seulement des pastilles de combustible sec.

Kondenswasserschale
 condensed water tray
 réservoir d'eau de condensation
 kondenswaterbakje
 skál foer kondesvatten

Ölen
 lubricate
 huiler
 Olieën
 Olieintag

Opgelet!

Een stoommachine zonder veiligheidsventil mag onder geen beding in gebruik genomen worden. De stoommachine alléén met WILESCO stoommachineolie smeren en alléén met droge brandstoftabletten in gebruik nemen.

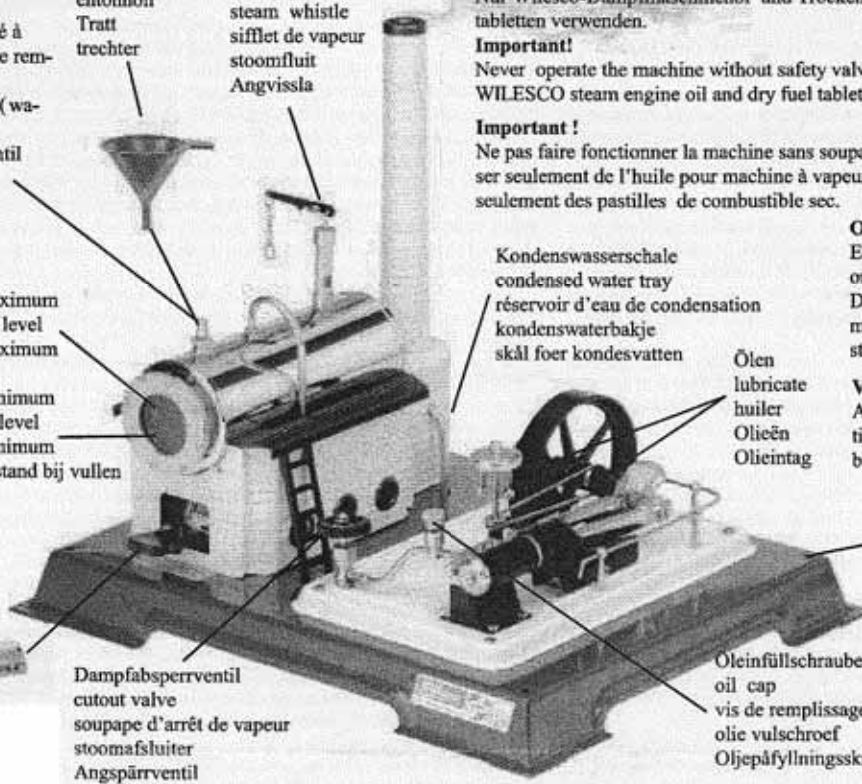
Viktigt!

Använd aldrig ångmaskinen utan säkerhetsventilen. Använd endast WILESCO olja. Använd enbart torrbränsletabletter.

für Befestigungsschrauben
 to be used for mounting screws
 pour vis d'attache
 Gat voor bevestiging schroeven
 för fästskruvar

Öleinfüllschraube
 oil cap
 vis de remplissage d'huile
 olie vulschroef
 Oljepåfyllningsskruv

printed 2005





Important information and safety precautions!

1. For safety reasons, children should only use the Steam Engine under supervision of adults (recommended age: from 8 years). While the Engine is running and until the complete cooling, the Steam Engine must be under constant observation.

2. Each irregularity in the course of the running of the Steam Engine can be repaired by a competent and authorized person or by WILESCO themselves. Otherwise any guarantee expires.

3. Any unauthorized alteration, repair or manipulation to the standard specification will also invalidate the guarantee.

4. The parts which are under steam pressure as boiler, spring loaded safety valve etc. leave our premises only after a 100% control. The spring loaded safety valve has not to be manipulated. **The running of the Steam Engine without any spring loaded safety valve is not authorized.** The spring loaded safety valve must be checked before each running with a pressure on the spring or a small pull on the upper valve rod. If lime residues through hard water are on the spring loaded safety valve, the valve must be changed immediately.

5. **High temperatures:** the principles on which your Steam Engine operates mean that the boiler, the boiler housing, the spring loaded safety valve, the steam pipes etc. become very hot. Do not touch in order to avoid the risk of burns.

6. **Safety precautions:** in the course of the running, take care that children do not touch any of the moving parts.



7. **Danger if the boiler is heated without enough water!** Always ensure that the Steam Engine has enough water in the boiler while running. It is recommended to refill water when adding new dry fuel tablets. **The water must be visible always at least at the lower end of the sight glass,** otherwise the joints become leaking and the boiler will

be destructed. Any following claim, damage or consequential damage cannot be accepted. If a leak occurs in the boiler or any other part where water or steam escape, stop the Steam Engine immediately (remove the burner tray and operate the steam whistle). Any necessary repair should be carried out by authorized trained staff or at the WILESCO company.

8. The Steam Engine meets all safety standards and actual regulations. Every boiler has been submitted to a bursting pressure and water test of 5 bar. The operating pressure is maximally 1,5 bar.

9. **Keep the operating instructions with your Steam Engine.**

10. We advise you to place the stationary Steam Engine on a non sliding surface or fix it onto a coated chipboard (approx. 16 mm thick) with 4 wooden screws (3,4 x 45 mm). The size of the board depends on how many models will be run with the Steam Engine.

Operating instructions

11. Unscrew the spring loaded safety valve and fill the boiler with the funnel approx. 3/4 full (upper edge of the water gauge glass), if possible with warm water. The funnel should raise slightly so that the air can escape from the boiler. Use only deficient in lime water or, better, water without any lime (e.g. distilled water).

12. Screw the steam whistle onto the boiler. Do use only the spanner provided with the Engine. Do not tighten by turning the lever as this will be damaged. When screwing in the steam whistle, the lever with the chain should point outwards (use washers if necessary) so that the chain which operates the whistle does not come in contact with the boiler. Pull the chain gently to operate the whistle. **Note: the steam whistle can be used to check any overpressure in the boiler or before oiling to check whether the boiler is still under pressure.**

13. **Let off the steam through the steam whistle before you oil.** Before you oil the cylinder, **turn off the cutout valve.** Then turn off the oil filler screw and fill in with WILESCO Steam Oil (item n° Z 83) while turning the flywheel several times so that the oil is drawn in. Oil again when you refill dry spirit tablets so that the piston does not seize (2-3 drops oil are enough for approx. 10 minutes running time). **Keep the cutout valve closed during the oiling procedure. No steam pressure must be in the boiler.** Oil lightly all of the bearings and linkages. Before refilling the boiler with water, check by operating the steam whistle that no steam pressure is in the boiler.



14. Place two layers of dry spirit tablets in the burner slide (the lower tablets flat and the upper tablets on their sides, no more than 5 pcs.). Then light the tablets. Use only the original WILESCO burner slide. **Caution: because of the risk of danger from an open flame, always take the necessary safety precautions.**

The burner slide is adjustable. The oxygen supply and the flame height can be adjusted by moving the burner slide in relation to the air holes of the burner slide guide in the boiler housing. Before adding new fuel tablets, always check the water level and refill the boiler with water to ensure that the boiler does not run dry. The ratio of fuel tablets to the quantity of water in the boiler is designed so that the boiler cannot run dry without any added fuel tablets. **The burner slide must be completely pushed in. Important: After the heating process, remove the burner slide from the guide whilst it is still hot, otherwise unburnt fuel may cause the slide to stick.** If the slide becomes stuck, it can be removed by tilting it slightly to the left or right.



Caution: dry spirit tablets require a lot of oxygen to burn properly. That is the reason why, for an indoors use, the room should be well ventilated. To prevent unpleasant smells, the fuel tablets should be burnt out - they should not be blown out. If there is not enough water in the boiler, place the burner slide on a fireproof plate until the tablets have burned out completely.

15. When steam appears (manometer indicating approx. 1 bar), turn once the cutout valve to the left to open it. Then turn the flywheel by hand to let the condensation in the pipes and the cylinder escape. Then the steam engine will start to operate. The speed of the flywheel can be adjusted through the steam regulator.

16. The condensed water tray must be **emptied several times** while the Steam Engine is running. Before you empty the condensed water tray, turn off the steam regulator and stop the Steam Engine.

17. After the use of the Steam Engine and its cooling, the Engine should be serviced. Pour out any water left in the boiler. For this, unscrew the spring loaded safety valve and take off all of the loose parts before tipping over the Engine. **Be very careful if the water is still hot!** Any water left in the boiler cannot do any damage, but might leave sediment on the sight glass. Any lime formation on the sight glass or in the boiler have not to be **removed in any case using vinegar or corrosive agent** (advise: use a lime dissolving agent which does not attack the brass and the solder). The building of soot on the lower side of the boiler does not influence the function and can be removed with a brush. Finally, dry the model using a clean cloth.

Guarantee:

18. All WILESCO Steam Engines are carefully checked before leaving the factory. However if a problem arises, you can return the Steam Engine to a specialized distributor or directly to WILESCO. **We are sure you will understand that already fired or used models cannot be exchanged for new ones.** The most frequent claims are leaking boilers. The solder will be destroyed if it is not enough water in the boiler. In such cases, the solder liquefy drop-shaped and the boiler becomes leaking. This is an obvious proof that the boiler was fired without enough water. **Please watch always carefully the water level because the heating without enough water excludes any demand for guarantee.**

This Steam Engine is only meant for the above described function.

Technical data can be amended without prior notice.