

GRANDSWEEP

TERRIER175

OPERATING INSTRUCTIONS AND PARTS MANUAL

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Represented by:-

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1. Introduction

Thank you for purchasing a TERRIER175 from the GRANDSWEEP range. The TERRIER175 has been designed to give a long, durable, trouble free life.

Read this manual carefully to learn how to operate and maintain your TERRIER175 correctly. Failure to do so will decrease the machines efficiency, affect its working life and could result in personal injury or equipment damage.

This manual should be considered a permanent part of your GRANDSWEEP product and should remain with the machine when it is sold.²

²All Rights reserved. In view of the constant improvements to our products, the specification data and instructions included in this manual are subject to change without notice.

2. Safety

This machine bears the "CE" mark and as such complies to the current EC Machinery Directive and The Supply of Machinery (Safety) Regulations 1992.

2.1 Recognise Safety Information

Read safety labels and instructions in this manual carefully. Keep safety labels clean and replace damaged or missing signs.

Safety Stickers (Black on Yellow)

1. Caution Rotating Blades!
Location - Wander hose connection point.
The blades can be rotating at up to 4000 rpm. Stop the engine before removing or adjusting wander hose connector or before removing face plate for maintenance or cleaning. Keep hands, feet, hair, body and clothing away from all moving parts to prevent injury.
2. Keep your distance flying objects!
Location - Top of exit chute.
All objects exit the chute into the collecting area at high velocity. Never stand in line with the exit point when the machine is running.
3. Read the operators manual before using!
Location - Left hand side of engine on the casing.
Do not start the machine until the operators manual has been fully read and the safe operating instructions have been understood

2.2 Observe Safe Working Practices:-

- 1) Never operate the TERRIER175 with wander hose disconnected.
- 2) Protect the operator from noise. Use ear defenders if required.
- 3) Keep clear of the exit chute whilst in operation as objects picked up by the Terrier, including stones and glass, are thrown from the exit chute at high speed.
- 4) Always Disengage the PTO shaft and stop engine before:
 - Leaving the tractor seat.
 - Connecting the wander hose.
 - Making any adjustments.
- 5) The TERRIER175 should never be operated without being attached to a suitable collection unit with a solid section opposite fan exit chute and collection unit should be covered with a strong fine mesh net to contain the discharged refuse.

4. Attaching TERRIER175 to the Tractor

- 1) Connect lower link arms of tractor to lower link pins of TERRIER175
- 2) Connect PTO shaft, ensuring shafts are securely locked in position on both tractor and machine. Connect PTO guard securing chains. Check condition of PTO guards regularly. Never use TERRIER175 with faulty damaged or missing guards.
NOTE: Because of the close coupling of the unit to the tractor, it may be necessary to shorten the PTO shaft. Contact your dealer.
- 3) Connect top link.
- 4) Tighten bottom link. Check chains/stabilisers to ensure TERRIER175 cannot move from side to side and that the PTO shaft is straight looking from above
- 5) Check maximum lift of linkage cannot damage PTO shaft. Set restrictor on tractor quadrant to limit lift if required.
- 6) Connect trailer.
 - i) Ensure trailer has no obstructions e.g. jacks, hand break levers, on drawbar. If so these should be removed and relocated.
 - ii) Use only clevis type drawbar (not pickup hitch) on maximum length setting. This prevents the TERRIER175 from touching trailer body when turning or tipping.
 - iii) Sufficient clearance should be available between the trailer drawbar and TERRIER175 to allow PTO shaft to operate at an angle of no more than 15°.**NOTE:** On some tractor/trailer combinations a modified drawbar may be required. Consult your dealer.

5. Removing the TERRIER175

- 1) Opposite of above.

6. Fitting Wander Hose

Important: Never attempt to attach or remove wander hose with the TERRIER175 running.

- 1) Disengage PTO and stop engine.
- 2) Release wing nut on wander hose coupling.
- 3) Insert wander hose coupling into connection point and turn clockwise. When connector locks, tighten wing nut.

7. Starting the TERRIER175

- 1) Connect wander hose.
- 2) Start tractor engine.
- 3) Make sure PTO shaft is not operating at an angle of more than 15°.
- 4) Set throttle speed to fast idle (1,000 rpm approx.).
IMPORTANT Do not engage PTO at fast engine speeds. Serious damage may result to tractor and/or to the Terrier.
- 5) Gently engage PTO.
- 6) Run tractor up to rated PTO speed (max. 540rpm).
- 7) Suction power can be altered by tractor PTO speed. Use low speed for light litter and high speed for wet leaves.
- 8) The tractor and trailer should be stationary and in line when the Terrier is in use. Misalignment of the tractor/trailer unit may cause the material blown by the Terrier to miss the trailer.

7.1 Stopping the TERRIER175

- 1) Throttle down tractor.
- 2) Disengage PTO drive.
CAUTION: Vacuum fan continues to turn even after tractor engine is stopped.

NEVER inspect, make adjustments or leave the tractor without disengaging the PTO and stopping the engine.

8. Wander Hose Operation

- 1) Always try to keep hose in a straight line as bends may cause blockage.
- 2) Move nozzle in a side to side movement 25-75mm (1-3") above material to be lifted.
- 3) Avoid picking up sticks which are longer than the diameter of the wander hose as they are likely to cause blockages.
- 4) Avoid picking up soil as this will increase the chance of blockage. Set suction power using engine speed to remove leaves and litter but leave soil and stones.

8.1 Extending the Wander Hose

To enable litter to be gathered at a greater distance from the collection unit (e.g. in remote corners, inaccessible paths), a hose extension can be added. The extension hose increases the chance of blockage and should only be used when required.

9. Maintenance

10 HOURS

- 1) Check gearbox oil. Top up if necessary.
- 2) Grease PTO bearings and shaft.
- 3) Check PTO guard. Never operate with faulty, damaged or missing guard.
- 4) Check hose for damage. Replace if necessary.

50 HOURS

- 1) Check condition of fan blades for wear or damage.

Replace when:-

- Damaged.
- Blades are worn to 130mm long.

Note: Excessive wear can lead to damage of the fan blade carrier.

- 2) Check condition of fan blade carrier for wear or damage.

Replace when:-

- Damaged.
- There is any sign of wear.

- 3) Check Torque on all nuts and bolts, (see Parts Manual for torque settings).

NOTE: Failure to check the fan blades, the fan blade carrier and the nuts and bolts could result in catastrophic failure of the machine and put the operator(s) at risk.

250 HOURS

- 1) Change gearbox oil

10. Trouble Shooting

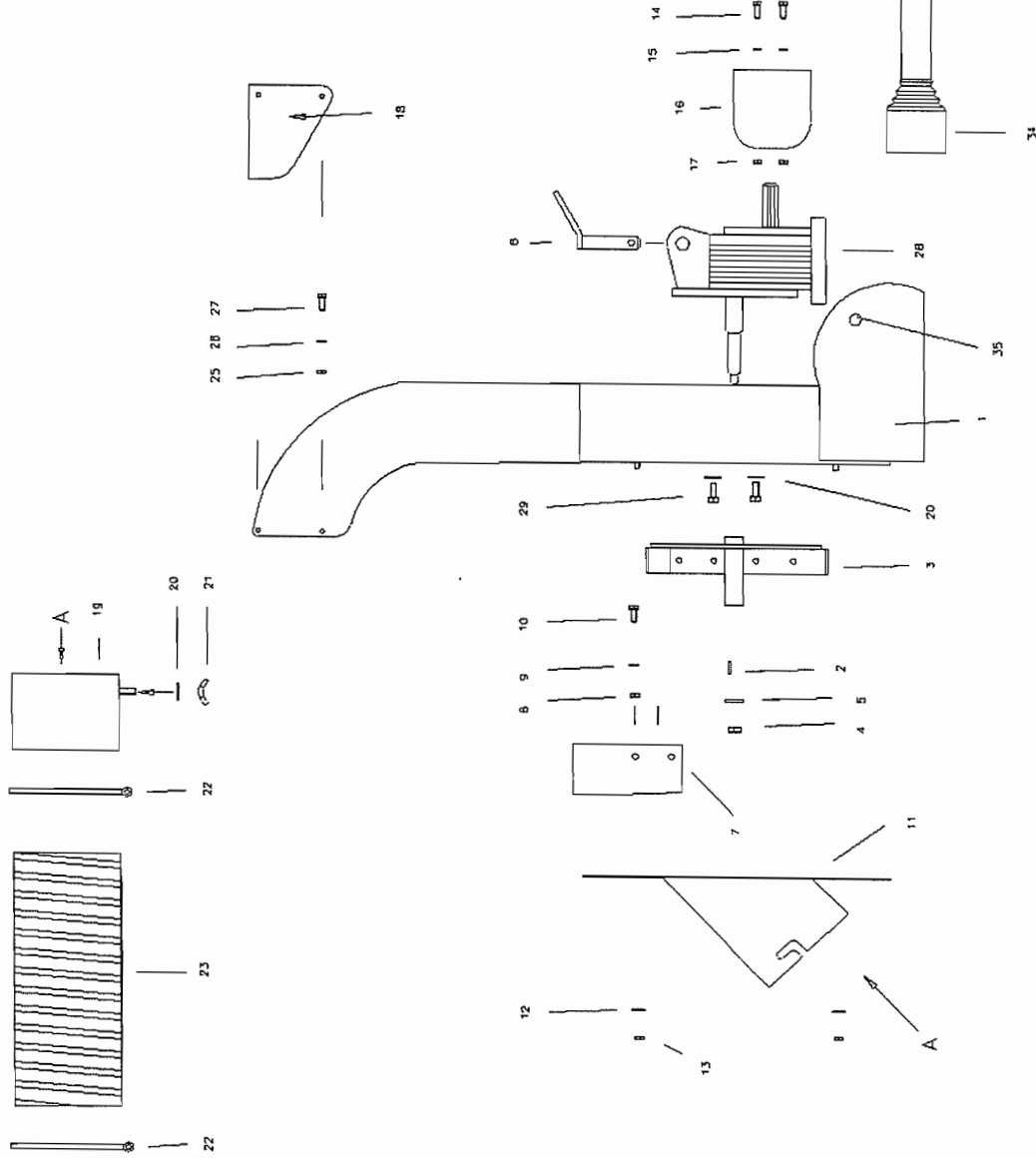
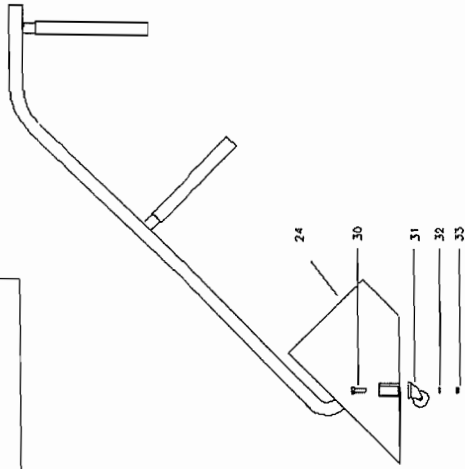
| Symptom | Problem | Solution |
|-----------------------|-----------------------------|--|
| No or limited suction | Engine speed to low | Increase speed |
| | Wander hose blocked | Stop engine, release hose, remove blockage |
| | Exit chute from fan blocked | Stop engine, release hose, remove blockage |
| | Worn fan blades | Replace |
| | Engine | See engine's operators manual |

11. Specifications

| TERRIER175 | |
|----------------|---|
| Power | Tractor power take-off |
| Hose | 203mm x 5m |
| Fan housing | 6mm steel plate |
| Mounting | Tractor three point linkage, category 1 and 2 |
| Height | 1330mm |
| Length | 750mm |
| Width | 650mm |
| Terrier Weight | 105kg excluding hose assembly |
| Hose weight | |
| Serial No: | |

DRG No T175PART

14/10/96



| ITEM | PART No. | DESCRIPTION | AS DRAWN | QTY | NO OF | SIZE - REMARKS |
|------|----------|-----------------|----------|-----|-------|----------------|
| 35 | T175417 | LINKAGE PIN | 2 | | | |
| 34 | T17549 | PTO SHAFT | 1 | | | |
| 33 | | M8 NYLOCK NUT | 2 | | | |
| 32 | | M8 WASHER | 2 | | | |
| 31 | T8D44 | CASTOR | 2 | | | |
| 30 | | M8X20 BOLT | 2 | | | |
| 29 | | M12X25 BOLT | 4 | | | TO 90Nm |
| 28 | T17541 | GEARBOX | 1 | | | |
| 27 | | M8X25 BOLT | 3 | | | |
| 26 | | M8 WASHER | 3 | | | |
| 25 | | M8 NYLOCK NUT | 3 | | | |
| 24 | T11419 | HOSE HANDLE | 1 | | | |
| 23 | T11415 | HOSE | 1 | | | |
| 22 | T11414 | HOSE CLAMP | 2 | | | |
| 21 | | M12 WINGNUT | 1 | | | |
| 20 | 200SMP | M12 WASHER | 5 | | | |
| 19 | | HOSE CONNECTOR | 1 | | | |
| 18 | T17557 | DEFLECTOR PLATE | 1 | | | |
| 17 | | M10 NUT | 4 | | | |
| 16 | T17547 | PTO GUARD | 1 | | | |
| 15 | | M8 WASHER | 4 | | | |
| 14 | | M8X25 BOLT | 4 | | | |
| 13 | | M10 NYLOCK NUT | 4 | | | TO 30Nm |
| 12 | | M10 WASHER | 4 | | | |
| 11 | T17513 | FACE PLATE | 1 | | | |
| 10 | | M10X25 BOLT | 8 | | | |
| 9 | | M10 WASHER | 8 | | | TO 70Nm |
| 8 | | M10 NUT | 8 | | | |
| 7 | T175510 | FAN BLADE | 4 | | | |
| 6 | T175512 | TOP LINK PIN | 1 | | | |
| 5 | | M16 WASHER | 1 | | | |
| 4 | | M16 NYLOCK NUT | 1 | | | TO 90Nm |
| 3 | T17512 | FAN CENTRE | 1 | | | |
| 2 | T175513 | KEY | 1 | | | |
| 1 | T17511 | TERRIER CASING | 1 | | | |

TORQUE SETTINGS

KIRBYMISPERTON
MALTON YORKSHIRE
YO17 0XT
ENGLAND

GRANDAGE
Engineering

This drawing is the property of GRANDAGE ENGINEERING and must not be copied or altered without their written consent.

THIRD ANGLE PROJECTION

IF IN DOUBT ASK DO NOT SCALE

USED ON DRAWINGS No.

SCALE 1:20

DRG No. T175PART

SHEET No. 1 OF 1 SHEETS

ALL DIMENSIONS IN mm U.O.S.
TOLERANCES U.O.S.
GENERAL +/- 0.25
ANGLES +/- 0.30