Instructions de service
Notice d'emploi
Operating Instructions
Betriebsanleitung

AC 35 F
AC 35

1971

1888
The tractor serial number is embossed on the type plate fitted to the intermediate housing (see III. 16). The engine serial number is to be found on the cylinder crank housing on the left hand side of the engine (see III. 18).

<table>
<thead>
<tr>
<th>Description</th>
<th>Engine and Tractor</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Type of machine:</td>
<td>E. G. AG 55, Resp. AG 35 F</td>
</tr>
<tr>
<td>(b) Engine serial number:</td>
<td>E. G. 3 35 100</td>
</tr>
<tr>
<td>(c) Tractor serial number:</td>
<td>E. G. 9 35 100</td>
</tr>
<tr>
<td>(d) Date of sale:</td>
<td>E. G. 16. 6. 1970</td>
</tr>
<tr>
<td>(e) Tractormeter reading:</td>
<td>E. G. 150 operating hours</td>
</tr>
</tbody>
</table>

With all inquiries please state the following:

- An office file.
- Maintenance and correct handling.
- The Operation Instruction Manual belongs in the hands of the tractor driver, not in
- Your tractor will always be ready for work if you study this manual carefully and if you follow its instructions for proper
- Application in any kind of cultivation.
- HOLDER AG 55 or AG 35 F tractor. The economy, comfort and efficiency of these machines make them suitable for
- More than 60 years of experience and the latest knowledge in design and construction are incorporated in your new
ADJUSTMENT OF COMBUSTION OF FUEL INJECTION:

Crank adjustment:

Fuel injection pump:

Injection of fuel injection pump:

(Feed direction of rotation as viewed from flywheel end anti-clockwise)

Hints for the mechanic (see Disassembling/Reassembling Instructions):

s) Disassembly of delivery of fuel injection pump:

p) Oil supply in gearbox for auxiliary pumps:

i) Fuel consumption:

m) Engine capacity:

l) Cylinder capacity:

k) Stroke:

j) Cylinder bore:

i) Number of cylinders:

h) Cooling system:

f) Cooling:

d) Combustion:

b) Type:

a) Manufacturer:

1. Engine:

B) Technical data:

AC 35 - AG 35 F
Hand Lever operated Rear Wheel Diff-lock (64 III)1.
6)
Diff-lock: Foot-pedal operated Front Wheel Diff-lock (10 III 1).

<table>
<thead>
<tr>
<th>Gears</th>
<th>Forward</th>
<th>Reverse</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>5.0 km/h</td>
<td>3.0 km/h</td>
</tr>
<tr>
<td>2nd</td>
<td>4.0 km/h</td>
<td>2.0 km/h</td>
</tr>
<tr>
<td>3rd</td>
<td>3.3 km/h</td>
<td>1.3 km/h</td>
</tr>
<tr>
<td>4th</td>
<td>2.6 km/h</td>
<td>1.0 km/h</td>
</tr>
<tr>
<td>5th</td>
<td>2.2 km/h</td>
<td>0.8 km/h</td>
</tr>
<tr>
<td>6th</td>
<td>1.8 km/h</td>
<td>0.5 km/h</td>
</tr>
</tbody>
</table>

Tachometer (55 III 10): Registers ground speed, engine and P.T.O. rpm and hours.

Speeds at max. revs (2300 rpm):

Forward: 46 35 (with tyres 10.5-20 AS)

2. Tractor:

Temperatures:
- Engine oil: 80°C
- Coolant: 90°C
- Exhaust gas: 400°C
- Air intake: 18°C

Fuel injection pump:
- Adjustment:
- Injection: Not adjustable

Thermoset responses:
- Not applicable
(m) **Rubber-tires:** Standard tires front and rear 8.24 AS, Forestry version, front and rear 10.5 x 20 AS

1. Temperature gauge
2. Preheating system
3. Two rear reflectors
4. Two rear reflectors
5. Two rear reflectors
6. Four fog lights
7. Four headlamps
8. Four fog lights (Bosch No. 0 250 000 004)
9. Fog light (Bosch No. 0 250 000 005)
10. Battery (55 Ah)
11. Bosch starter (Bosch No. 0 007 307 022)
12. Bosch dynamo (Bosch No. 0 190 215 028)
13. Electrical equipment: 12 V system
14. Implement hitch: Can lift three-point linkage after DIN 9674 with field bars
15. Pressure connection (see Ill. 22)
16. Max. lifting capacity at bottom of lower link arms: 1400 kg (3000 lb)
17. The control valve provides for a second hydraulic: Holder two-cylinder hydraulics with Bosch gear pump (16 l/min). Lifts with disengaged transmission.
18. **Hydraulics:** Suitable for height and revolving, with guard fixed in one piece.
19. **Trailer hitch:** Suitable for height, and revolving, with guard fixed in one piece.
20. **Brakes:** Foot pedal operates rear wheel brakes. Hand ratchet lever operates front wheel brakes for parking. Both brakes act independently on all four wheels through the transmission.
21. **Steering:** Proposal hydraulic ZF steering acting on all four wheels (spindle-type hydraulic steering).
2.9 Ltrs. (6 Pints) Glysantine
1.5 Ltrs. (3 Quarts) SAE 80 gear oil
0.25 Ltrs. (7/12 Ounces) SAE 80 gear oil
2.5 Ltrs. (5/2 Pints) HD-B-2 oil for diesel engines

Anti-freeze mixture: total quantity 8.7 Lrs.

Fuel tank:
Axle housing:
Gearbox rear:
Gearbox front:

Gearbox for auxiliary pumps (engine):

Hydraulic system:

Oil bath air filter:
Engine (oil sump):
Engine (oil tank):

Oil filling quantities:
Permissible load on trailer hitch
Permissible load on front axle
Permissible load on rear axle
Rear axle pressure
Front axle pressure
Weight without implements

Weights:

<table>
<thead>
<tr>
<th>Load (with tires 10.5-20 A5)</th>
<th>Load (with tires 8-24 A5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>550 kg</td>
<td>550 kg</td>
</tr>
<tr>
<td>1200 kg</td>
<td>1200 kg</td>
</tr>
<tr>
<td>1200 kg</td>
<td>1200 kg</td>
</tr>
<tr>
<td>600 kg</td>
<td>510 kg</td>
</tr>
<tr>
<td>600 kg</td>
<td>760 kg</td>
</tr>
<tr>
<td>860 kg</td>
<td>1270 kg</td>
</tr>
<tr>
<td>1460 kg</td>
<td></td>
</tr>
</tbody>
</table>

The above mentioned permissible axle loads are for driving on public roads and squares. The permissible axle pressure is 1500 kg.
of the dynamo, press dynamic outwards till the V-roller has the right tension, then tighten screws.

(d) The V-roller (19 ill. 3) has the right tension if you can press it with your finger approx. 1 mm between the fan and dynamo pulleys (ill. 3). For retightening the V-roller, slacken both screws (ill. 9) of the sliding bracket (ill. 3).

When drawing the anti-freeze mixture in summer, make sure to add an anti-corrosive to the cooling water.

Attention! An anti-freeze mixture (specific up to -20°C) is filled in from the works all the year round. Check cooling water concentration before handing tractor over to customer, and before the winter season starts. If necessary, add a concentrate to it, according to the temperature. The freezing point should be at least 3°C lower than the lowest temperature to be expected.

When draining the anti-freeze mixture in summer, make sure to add an anti-corrosive to the cooling water.

(c) Cooling water:

Remove oil basin (23 ill. 6) and top-up to mark with the same brand of oil as used in the engine.

(b) Oil level at filler (ill. 6)

(b) Oil level at filler (M1N)

(b) Oil level at filler (M1N)

The oil level should be kept at upper dipstick mark, and must never be below the lower dipstick mark. The oil level should be regularly renewed. The oil level should not be changed if the bran has been artificially cooled. Consumed oil must be replaced by oil of the same quality, which is available in the USA.

In order to avoid engine trouble which might be caused through the use of inferior lubrication oils, use only HD-B oils for diesel engines. HD-B oils are easily identifiable by the corresponding markings.

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For temperatures above +30°C

HD-B-011 SAE 30

For temperatures from 0°C to +30°C

HD-B-011 SAE 20

For temperatures below 0°C

HD-B-011 SAE 10W

Open oil tank (ill. 1) and, with engine shut-off, top-up to upper dipstick mark with HD-B-011 for diesel engines.

(3) Preparations for taking tractor into service

1. Engine:

C

Preparations for taking tractor into service
Check stop bolts (78 II l. 17). A broken stop bolt causes the two tractor halves to swing too much resulting in damage.

Exhaust:

Check stop bolts:

Precautionary conditions of operation. Ask your agents or dealers for their advice.

Exhaust:

Check tyre pressure at least once a week. Front and rear pressure 1,5 atm.

Checking Tyre Pressure:

Be filtered through a clean cloth. Ventilate fuel system. (See para. 4 on page 51).

Use scrupulously clean fuel. Dirty fuel will cause premature wear of injection pump and nozzles. The fuel should

Filling Fuel Tank:

To the universal shanks.
be greased. The bearing journal, the oil socket, i.e., the center lubrication nipple (s), and S) must

sharply, have constant lubrication and only the square socket, i.e., the center lubrication nipple (s), and S) must

part from the lubrication nipple on. The lubrication points on the upper and lower universal

points in the lubrication nipple (s) according to the Service Chart. Before greasing remove the protective coating of

e) Grease all lubrication points (s)

ii) 16 and 18.

(d) Engine oil: SAE 80 gear oil 0.3 1½, filler and control plug K, 1½ 16 and 18.

(3) Hydraulic oil supply tank: HD-B engine oil SAE 20, 5.3 1½, (for hydraulic system and hydraulic steering 20 1½).

(c) Hydraulic oil supply tank: HD-B engine oil SAE 20,5.3 1½, (for hydraulic system and hydraulic steering 20 1½).

(b) Rear gearbox: SAE 80 gear oil 0.9 1½, (sight glass K, 1½ 12 and 16).

1. Gearbox:

2. Gearbox:

above the engine (dead-loss system), has a capacity of 2.6 1½.

return flow pipe (107) to the micro-mesh filter (108) and from there back to the oil tank. The oil supply tank, situated

turbo engine oil is pumped by the oil pump through the coarse filter (205), then through the

suction line of the oil in the sump by the oil pump through the coarse filter (205), then through the

connection which allows each crankshaft bearing to be lubricated by a separate oil connection. The return oil is

oil through the pressure pipes (D-4) to the crankshaft bearings. The new oil pump (104) has four pressure

The engine oil is led from the oil tank (100) through the oil pipe (102) to the oil pump. The oil pump transports the

(c) Oil circulation (1½ 12):

0.22 1½, SAE 80 gear oil, filler screw (E), 1½ 12, 0.9 1½, sight glass K, 1½ 12.

(b) Gearbox for auxiliary pumps (engine):

HD-B oil SAE 30

above +30°C

HD-B oil SAE 20

from 0°C to +20°C

HD-B oil SAE 10 W

below 0°C

(a) HD-B oil for diesel engines, depending on temperatures:

1. Engine:

D Lubrication
Driving on steep slopes:

particularly when turning the machine whilst driving downhill.
When using heavier implements with the tractor on narrow tracks, utmost care must be taken in stopping. Teritory.
If the gear proves difficult to engage, depress clutch pedal (66 III. 11) once more (do not use force). Release clutch pedal (66 III. 11) and engage gear selector lever (63 III. 11) (gear selection diagram see III. 13 – 14 – 15).

Before using gear selector lever move throttle lever and foot pedal (66 III. 12) resp. (72 III. 12) into neutral. Depress clutch pedal (66 III. 11). Release hand brake (70 III. 12). Presessor deseise gear range (reverse, forward – slow, for

1. Preparations:
   (E) Taking tractor into service

2. Driving:

   [Instructions continued...]

Advice.

Security can be increased by using wheel hubs or wheel weight! – Ask your local distributors or dealers for their...
The necessary 7-pole plug is available commercially, under DIN 72576. The necessary 7-pole plug is available commercially, under DIN 72576.

3. Braking:

- If the tractor is used stationary only, i.e. with P.T.O. e.g. for driving a water pump, care must be taken that the machine stands on level ground.
- Carbon oxide is scentless and invisible.

Never run tractor in unventilated space.
5. Adjustment of track width - Tyres:

To readjust the track width, interchange the two right and the two left wheels. The arrow on the tyres should always point in the forward driving direction. The bearings can be adjusted to the relevant track width. All four tyres must be of the same size and have the same tyre pressure.

6. Hydraulic lift:

Since the distance between the tyres at max. steering angle must be sufficiently large.

The steering angle of the lateral stop bolts (84, 11, 14) must always be the same as adjusted by the manufacturers.

If ballast weights are used, it is not permissible to adjust the tyres without water, or to use any other ballast.

The pressure of 1.5 to 2.0 bar, check wheel nuts from time to time particularly after changing over the wheels.

In order to avoid an undue stress on the bearings, no other than the track widths permitted by the manufacturers.

The same size and have the same tyre pressure.

7. Three-way distributor valve (90, 11, 24) within hydraulic coupling.

The hydraulic pump runs all the time, the hydraulic lever must be used only for lifting and lowering the implements.

The implement in its raised position, the lever is to be caught (locking position). Since the implements are lowered, when pulling the lever up, the implements are lifted. Intermediate adjustment keeps the implements in their position. When pressing the lever downwards, the implements are lowered.

8. Stopping lever:

Lever position C: Slow 2 and 3 open
Lever position B: Slow 1 (blanked off) 2 and 3 shut
Lever position A: Slow 1 (blanked off) open

Let engine run idle. In throttle engine reverse, disengage clutch, move selector lever (63, 11, 12) in position „0“ put on hand brakes.

Let engine run idle. In throttle engine reverse, disengage clutch, move selector lever (63, 11, 12) in position „0“ put on hand brakes.
Service and maintenance (See also Service Chart on Pages 54/55)
2. Hydraulic System:

Injection nozzles, and regulator, checked by a Bosch Service Station. Have oil in the regulator renewed.

Drain superheated oil of regulator on control screw (K, II, 2) after 200-250 operation hours. Have injection pump.

(! Regulator – Fuel Injection Pump (6/28 II, 2):

Open draw screws (AW, II, 2) and (AW, III, 2) on engine.

Open drain screw (AW, III, 2) on bottom of radiator.

(h) Draining radiator cooling water:

Deposit and inspects;

Cleaning radiator: Blow from engine side through radiator grille with compressed air in order to remove dust.

Freeze mixture, or have cooling concentration checked.

Water pump: Thermostat does not respond. - Pull block off, oil outlet ports coked. Oil frost is expected, add anti-freeze mixture. Open bleed screw (1), bleed oil. Insufficient cooling water. Defective temperature regulating radiator cap completely. If temperature test lamp (109, 10) lights up and cooling water cannot be homogenized. The engine has been killed off. Open radiator cap (1) very slowly, as far as stop to let steam escape. Then remove engine has been killed off radiator cap (1) very slowly, as far as stop to let steam escape. Then remove

Check cooling water level daily. Possibly if the engine is cold, when checking cooling water straight after the

(9) Cooling system:

(E, II, 2) and III, II, 0, 22 if or SAE 80 gear oil. Oil level see sight glass (K, II, 2).

Change after every 450-500 operation hours. Open oil drain screw (A, II, 3) and draw oil. Check engine oil level.

(i) Gearbox for auxiliary pump (engine):

Clean with diesel oil. Let filter gauze drop well and refill oil basin with fresh engine oil up to mark.

Clean depending on dust development. If necessary daily. Remove oil basin (23 III, 6) and filter gauze (43 III, 6) and

(6) Oil bath oil filter:

Oil bath oil filter:
3. Steering – ZF Hydraulic Steering

- With hydraulic cylinders at maximum mark of dipstick (7 23). Ventilated: the oil level should be with engine shut-off – approx. 1.5 cm below the upper edge of the tank or
- Ventilated: the oil level once more after the tractor has been in operation for some hours. If the system has been correctly
- Check oil level once more after the tractor has been in operation for some hours. If the system has been correctly

5. Shut engine off and fill in the rest of the oil. If the measured off oil quantity will not be taken up entirely, repeat

4. Lift and lower hydraulic power lift several times under load.

3. Top-up with hydraulic oil.

2. Drain engine and let it run in idling revs. Turn steering wheel several times from right to left-steering lock. In this

1. Measure off 5.3 ltr. or oil, open cap of hydraulic oil suction tank (6 11 1). Fill tank (approx. 6 ltr.) and put on tank cap.

Refilling oil and ventilation (total quantity 5.3 ltr. of SAE 20 engine oil)

3. Drain oil through suction socket of hydraulic oil tank.

2. Open drain plug of steering and turn steering wheel to right and left steering lock.

1. Press hydraulic lever (63 20) completely down.

Draining oil:
7. Transmission:

Topical countries: Every 4 weeks. In topical countries after two weeks. The acid level must be at 10–12 mm above check battery (11.1). Every 4 weeks, in topical countries, check the battery with a consistency of 1:28 = 320° Be at +20°C and a temperature of 1:28 = 270° Be. To charge battery, remove the sealing plug.

6. Battery maintenance:

Dust development.

The fuel filter (12 III, 1) built into the fuel tank must be replaced after approx. 450–500 hours. Depending on the fuel filter cannot be cleaned:

5. Replacing fuel filter (12 III, 1):

Sticken air vent screw (2 II, 1) or fuel injection pump. Relighten screw if fuel comes out without bubbles.

The intake part of the injection pump (6) if the intake has run out of fuel.

(b) when fuel filter is replaced, or when injection pipes are opened or removed, l.e. if air has entered the pipes, or

before starting engine for the first time if the fuel tank is empty.

The fuel system must be ventilated:

4. Ventilation of the fuel system:
8. Brakes and Lighting System:

With SAE 80 gear oil.

After every 500 hours of operation check the oil level on control plugs (K, \(L\) and \(M\)) and, if necessary, refill.

Axle housings:

The oil level of the rear gearbox should be increased by approx. 2 litres.

If the tractor is used stationary only for some time e.g. to drive a water pump, it should be on level ground and screw (A) (\(L\) to \(E\)), filter screw (E, \(L\) to \(E\)).

With the tractor standing on level ground, the oil level should be at the centre of the sight glass (K, \(L\) to \(E\)).

Drain 90 Lit SAE 80 gear oil.

Change oil for the first time after 450-500 operation hours. Then every 2500 hours.

o) Rear Gearbox:

Change oil for the first time after 450-500 operation hours. Then every 2500 hours.

b) Front Gearbox:

Universal shafts should be greased. This requires a grease gun with an articulated nozzle.

Carried out, i.e. if the universal shafts have worn loose, rep. after approx. 2500 hours. Cross and bearings of the
Before washing tractor down with water, disconnect battery terminals or still better, remove the battery. Protect fuel injection pump, dynamo, starter, regulator and intake opening of the oil bath air filter from a direct contact with water.
1. Check the oil. Keep the oil at the level of the oil gauge.
2. Check the water temperature. If it is not at the level of the water gauge, adjust the thermostat.
3. Check the fuel level. Ensure it is at the level of the fuel gauge.
4. Check the air filter. Clean or replace it if necessary.
5. Check the electrical system. Ensure it is in good condition.
6. Check the belt tension. Adjust if necessary.
7. Check the tires. Ensure they are properly inflated.
8. Check the brakes. Ensure they are functioning properly.
9. Check the steering. Ensure it is functioning properly.
10. Check the exhaust. Ensure it is not smoking.

To service the engine, follow these steps:
1. Drain the coolant.
2. Remove the spark plugs.
3. Check the spark plugs. Replace if necessary.
4. Clean the air filter.
5. Change the oil and filter.

Service chart:
1. Check the oil level.
2. Check the water level.
3. Check the fuel level.
4. Check the air filter.
5. Check the electrical system.
6. Check the belt tension.
7. Check the brakes.
8. Check the steering.
9. Check the exhaust.
10. Check the tires.

For detailed instructions, refer to the engine manual.
A tractor is best valued according to operation hours and age. With the following guiding principles:

<table>
<thead>
<tr>
<th>Operation hours</th>
<th>Driven km</th>
</tr>
</thead>
<tbody>
<tr>
<td>2500</td>
<td>187,500</td>
</tr>
<tr>
<td>2000</td>
<td>150,000</td>
</tr>
<tr>
<td>1500</td>
<td>125,000</td>
</tr>
<tr>
<td>750</td>
<td>75,000</td>
</tr>
<tr>
<td>500</td>
<td>50,000</td>
</tr>
<tr>
<td>250</td>
<td>25,000</td>
</tr>
<tr>
<td>10</td>
<td>7,500</td>
</tr>
<tr>
<td>1</td>
<td>750</td>
</tr>
</tbody>
</table>

A motorcar is generally valued according to driven kilometers and age.

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<table>
<thead>
<tr>
<th>How to Value a Tractor</th>
</tr>
</thead>
</table>

1. To discharge the hydraulic during adjustment, the lateral range of the implement is adjusted with the chains (82 III, 20).
2. The implement lift will take up calibrated three-point horizontal implements. Horizontal adjustment with crane (81 III, 20) is advisable.
3. When extracting logs, remove rear reflectors (96 II. 27). For this purpose, take plug (93 II. 25) out of socket, slacken wing nut (94 II. 25) and remove rear reflectors with their mounting brackets.

2. For forestry work, particularly in winter, all four wheels should be fitted with chains (e.g. Rund-type chains 96 II. 27).

1. When attaching the rope which without front-mounted rolling and stacking blade ballast weights of 50 kg, per wheel.

K) AC 35 F - Forestry Version

5. After removing the bull plate, the rope which can remain on the tractor when lifting three-point implements (e.g.

4. Front-mounted rolling and stacking blade: Operation lever (91 II. 24) for front-mounted bucket, or cleaning blade.

3. Operation lever (92 II. 24) for front-mounted bucket.

2. Lever position H = III.

1. Lever position S = dip.

K) AC 35 F - Forestry Version

5. After removing the bull plate, the rope which can remain on the tractor when lifting three-point implements (e.g.

4. Front-mounted rolling and stacking blade: Operation lever (91 II. 24) for front-mounted bucket, or cleaning blade.

3. Operation lever (92 II. 24) for front-mounted bucket, or cleaning blade.

2. Lever position H = III.

1. Lever position S = dip.
The following oils correspond to the above mentioned specification and are recommended by us:

**1. ARAL**
- SAE 30
- SAE 20
- SAE 10W

**2. BP**
- Vanellus-T SAE 20
- Vanellus-T SAE 10

**3. ESSO**
- Specol HDX SAE 30
- Specol HDX SAE 20
- Specol HDX SAE 10W

**4. FINA**
- Fine Delta Motoroil SAE 30
- Fine Delta Motoroil SAE 20
- Fine Delta Motoroil SAE 10

**5. GAZELIN**
- Gasolin HD SAE 30
- Gasolin HD SAE 20W/20
- Gasolin HD SAE 10W

**6. MOBIL-0IL**
- Mobil Diesel Oil 1120 SAE 30
- Mobil Diesel Oil 1120 SAE 20
- Mobil Diesel Oil 1120 SAE 10W

**7. SHELL**
- Shell Rotella T SAE 30
- Shell Rotella T SAE 20
- Shell Rotella T SAE 10W

**8. VALVOLINE**
- Valvoline Super Hpo SAE 30
- Valvoline Super Hpo SAE 20
- Valvoline Super Hpo SAE 10W

**9. VEDDOOL**
- Heavy duty plus (HD 902 Special)
- Heavy duty plus (HD 903 Special)
- Heavy duty plus (HD 901 Special)

**10. SAE**
- SAE 30
- SAE 20
- SAE 10W
null
Attention! For safety's sake use self-locking nuts only once.

1. Final Assembly (III, 32)

(1) Measure from the centre of the tube of the front clamp connection to the centre of the top frame tube.

The top of the frame overtops the ractor in front by 220 mm (see measurement B).

1090 mm are maintained. Measurements taken from centre to centre of tube. (see arrow)

The loose, assembled top of the frame must be aligned in a way that the length (x) of 905 mm and the width (y) of

the assembled top (a) must be placed so that they point downwards on the outside and upwards on the inside.

2. Fitting Top of Frame on Support Tubes (III, 31)

From inside, tighten hexagon nuts with torque wrench set to brake at 7 kpm.

(1) Secure base plates with screws by inserting over-head screws in the bases of the base plates. The hexagon screws must be

inserted from the inside, the base plates must lie on the inside, and be fixed with screws (b = 110 mm outside. For fixing

rear wheels of ractor. Remove rear wheels. Fix base plates (a) with limmers on axe housing (see external holes).

3. Atachment of Support Tubes on Tracor (III, 30)

(1) Between the front left-hand clamp connections (c), using assembly screws (d), whereby screw heads must point inside. To serve as a protection put a profiled number

using assembly screws (d), whereby screw heads must point inside. To serve as a protection put a profiled number

from the same side the tube at the left half of the frame and the other half (b) together. Fix from clamp connections

front to the top frame (a). Then slide

(2) Assembly of the frame top (II, 29)

For attachment of the safety frame use only the recommended parts. Please pay strict attention to the following instinc-

 homicidal line with the ractor axle. The whole safety frame can be bored up to 17 mm dia.

If the top of the frame is in horizontal line with the ractor axle, the whole safety frame can be bored up to 17 mm dia.

(3) Fitting Top of Frame on Support Tubes (III, 31)

The top of the frame overtops the ractor in front by 220 mm (see measurement B).

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from the same side the tube at the left half of the frame and the other half (b) together. Fix from clamp connections

front to the top frame (a). Then slide

(2) Assembly of the frame top (II, 29)

For attachment of the safety frame use only the recommended parts. Please pay strict attention to the following instinc-

(homicidal line with the ractor axle. The whole safety frame can be bored up to 17 mm dia.

If the top of the frame is in horizontal line with the ractor axle, the whole safety frame can be bored up to 17 mm dia.

(3) Fitting Top of Frame on Support Tubes (III, 31)

The top of the frame overtops the ractor in front by 220 mm (see measurement B).

1090 mm are maintained. Measurements taken from center to center of tube. (see arrow)

The loose, assembled top of the frame must be aligned in a way that the length (x) of 905 mm and the width (y) of

the assembled top (a) must be placed so that they point downwards on the outside and upwards on the inside.

2. Fitting Top of Frame on Support Tubes (III, 31)

From inside, tighten hexagon nuts with torque wrench set to brake at 7 kpm.

(1) Secure base plates with screws by inserting over-head screws in the bases of the base plates. The hexagon screws must be

inserted from the inside, the base plates must lie on the inside, and be fixed with screws (b = 110 mm outside. For fixing

rear wheels of ractor. Remove rear wheels. Fix base plates (a) with limmers on axe housing (see external holes).

3. Atachment of Support Tubes on Tracor (III, 30)

(1) Between the front left-hand clamp connections (c), using assembly screws (d), whereby screw heads must point inside. To serve as a protection put a profiled number

using assembly screws (d), whereby screw heads must point inside. To serve as a protection put a profiled number

from the same side the tube at the left half of the frame and the other half (b) together. Fix from clamp connections

front to the top frame (a). Then slide

(2) Assembly of the frame top (II, 29)

For attachment of the safety frame use only the recommended parts. Please pay strict attention to the following instinc-
out.

5. (a) Clutch of the winch released (open slowly to avoid slackening of the closed rope) — The rope can now be pulled.

Neuer die Klinken für jede Länge von Längen.

Load — this will enable the clutch to slip smoothly over obstacles.

Shut the clutch of the winch, only 10 cm above an external which is necessary to obtain sufficient traction to move the

wind. Heavy loads: engage the clutch of the winch first, then start using the more sensitive P.T.O. clutch.

in normal operation: engage P.T.O. (76 to 12 Resp. 25) and close the clutch of the winch.

4. When pulling

1. Lower three-point hydraulics and simultaneously the built plate (111. 26).

2. Disengage the clutch of the winch.

3. Run out the cable and tilt load (avoid loops and sharp angles).

Operation Instructions for Hope Winch Type 142

We recommend to use ballast weights in the front wheels.

between spear and lower link arm using pillar pins or dowel pins and bolts. Before the built plate in the legs of the lower link arm and place it on top of a climbing sheave. Fit the built plate in the legs, between inner rod and lower link arm.

4. Change inner rod with threaded spindle over to the left hand side. Thereby is recommended to replace the split pin and

located segment.

3. Screw punched support of tailer hitch and top link arm, as well as P.T.O. guard, onto the winch support. Fit clutch

operation lever of the winch with screws in a place from where it can be reached from the drivers seat — grease.

secure all screws with locking rings and tighten firmly.

2. Slide winch, together with the winch support, onto the greased P.T.O. shaft and on centering seat, and tighten with

cleannip plate with screw cap.

1. Unscrew P.T.O. guard and trailer hitch with socket from tractor, clean P.T.O. shaft and bearing surface from paint.

A. Attachment of Hope Winch and Built Plate on Tractor

(1) Make Schlange and Reachant — Mechanically operated

(0) Forestry winches
When lining a new rope, the rope must be unlotted from the pulley - loops caused through lateral pull will result in damage.

**General Instructions**

1. **Rope Preparation**: For this treatment, the rope must be absolutely clean and free from grease. To protect the steel wire rope from corrosion and to cover it with a non-skidding film of dry lubricant, spray it with two 200 hours (Use 2.5 reps. 0.3% Mobil GX 140 oil). You are expressly requested to use only SAE 10 oils with every 200 hours. (Use 2.5 reps. 0.3% Mobil GX 140 oil.)

2. **Lubrication**: Monthly.
   - 1/4 of the exhaust of the transmission must be used.
   - 1/4 of the roller chains of the rope transmission, twice a week.
   - 1/4 of the belt pulley inside the engine, through a small skid brake which can be adjusted with a lateral set screw.

3. **Service and Maintenance**: The wire ropes supplied with the wind have undergone severe resistance tests through the manufacturers and have been checked by us so that any warranty claims for the ropes must be principally rejected.

4. **High Pressure of Ropes**: Pressure is equalized and, in winding, the rope will not enter into the fenders. By proceeding thus, a high pressure of rope is obtained, and in winding the rope, the fender will not enter into the fenders. By proceeding thus, a high pressure of rope is obtained, and in winding the rope, the fender will not enter into the fenders.

5. **Winding the Wind**
   - On the first place, the rope which can remain on the fender, which can remain on the fender, and be in the direction of pull with the direction of pull.
   - On the second place, the rope can be pulled within the range of an angle of 180°. Normally, the fender should be in the direction of pull with the direction of pull.

6. **Winding the Wind**
   - On the first place, the rope which can remain on the fender, which can remain on the fender, and be in the direction of pull with the direction of pull.
1. Lower three-point hydraulics and simultaneously the hill plate (III. 26).

2. Light package of rope is preferably and, in unwinding, the rope will not cut into the layers.

3. If by storing or attaching the tractor with hand brake slightly closed, the knick point of the rope, by proceeding thus, a hill left is on the hill plate. Learning only 2 coils on the drum, then raise the rope onto a knick point, and unwind.

4. Before taking the wind with operation for the first time, and before pulling heavy loads, we recommend to pay our

The wider ropes supplied with the hill plate which have undergone severe resistance tests through the manufacturers and have

(b) Operation instructions for rope wind Type 410

1. When handling three-point implements.

2. After removing the hill plate, the rope which can remain on the tractor when using trailers on the hill plate, and place between the tractor and lower link arm.

3. When using stall pins, of dowel pins and poles. Before all hill plate in the hill of the lower hill, between hill and hill plate pin on top by a carrying sheet. Fill the space which are supplied with the wind. Between hill and lower hill plate pin.

4. Change hill left with the used spindle. Therefore it is recommended to replace the hill plate.

5. Secure and suspend support of trailer which and tools arm, as well as P.T.O. guard, onto the hill plate support.

6. Secure all spools with locking rings and tighten them firmly.

7. The central spool and with 5 spools on each side. For this purpose remove the lateral chain guard.

8. Side spool, together with the hill plate, is suspended onto the grease P.T.O. shaft and on containing seal, and tighten with


(A) Make Schling and Receiver Type 410 - Hydraulically operated

1. Between wind and wind support. After that, receiver which

2. Releft the second, diagonal chain, by placing the wind on its support in order to pull the spare selling chains.

3. Receiver with the drive wheel without the cover seal and displacement from upwind in their long slots.

4. Releft the vertical chain by placing the screw on the double spool higher. To do so, slacken the 4 screws, and

5. Drive is taken from the P.T.O. over a vertically arranged chain drive and a second chain, arranged diagonally to the

...
of the handle behind the driver seat and displace them upward. To do so, slacken the 4 screws.

- Realign the vertical chain by placing the screw head of the double sprocket higher. To do so, slacken the 4 screws.

- Use SAE 10 oil with the winch.

- Change oil in gear box for the first time after 50 operation hours. Thereafter every 200 hours (2.5 hrs. @ 140).

- When unwinding the rope, pulling is avoided through a small brake which can be adjusted with a lateral set screw.

(c) Service and Maintenance

This will cause clutch and brake linings to slip and results in increased wear!

- Show stopping, using the clutch and releasing the brake slowly is needed by delayed changing of the gears. Otherwise, the rope will get loose on the drum.

- Groove (if the rope is pulled tight, open brake slowly. Otherwise the rope will get loose on the drum).

- When releasing the brake, the control lever is opposite to automatic direction and is automatically fixed by catching in a groove (if the rope is pulled tight, open brake slowly. Otherwise the rope will get loose on the drum).

- When releasing, the return spring moves the control lever into "O" position, and the winch is automatically broken.

- When rewind, when one of more control valves (LB 408 P.2D) are actuated against the pull of the return spring.

- With heavy loads; engage the clutch of the winch first, then start, using the more sensitive P.T.O. clutch.

- In normal operation; engage P.T.O. (76 III. 12 rpm, 26) and close the clutch of the winch.

4. When pulling:

- Run out the cable and fit load (avoid loops and sharp angles).

- Release the winch.

2. Release the winch by means of the hydraulic operation lever.
The hydraulic pump of the tractor pumps pressure oil into the front side of the control block and from there, via the accumulator charging valve, through the control valve (or valves) of the wind, to the pressure reservoir. If the latter is charged with 160 bar (approximately 2320 lbf/in²) the accumulator charging valve changes over to diaphragm. The diaphragm is depressed with 160 bar, thus releasing the accumulator charging valve to respond again to avoid unnecessary heating of the oil. A disturbance of the valve block may also result in incorrect responding of the valve. Therefore, the torque of the 4 long bolts must not be more than

Oil pressure adjustments, as prescribed by the operation diagram (except pressure 160 bar and cut-off pressure 1/2 mpa), may also result in incorrect responding of the valve. Therefore, the torque of the 4 long bolts must not be more than 10 seconds. This is a sign of the accumulator charging valve having become stuck in intermediate position. For more than 10 seconds, this is a sign of the accumulator charging valve being charged. If this sound goes on for more than 10 seconds, it is a sign of the pressure chamber being charged. If this sound goes on for more than 10 seconds, it is a sign of the pressure chamber being charged.

A humming sound of a duration of 10 seconds is the sign of the pressure chamber being charged.

The hydraulic pump of the tractor pumps pressure oil into the front side of the control block and from there, via the accumulator charging valve, through the control valve (or valves) of the wind, to the pressure reservoir. If the latter is charged with 160 bar, the accumulator charging valve changes over to diaphragm. The diaphragm is depressed with 160 bar, thus releasing the accumulator charging valve to respond again to avoid unnecessary heating of the oil. A disturbance of the valve block may also result in incorrect responding of the valve. Therefore, the torque of the 4 long bolts must not be more than

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Abb. 18

Motor-Nr. = Engine number

No du moteur = No del motor
Abb. 19