

OPERATION, MAINTENANCE AND SPARE PARTS MANUAL

FOREST TRAILER

FARMI 90



**READ THIS OPERATION AND MAINTENANCE MANUAL CAREFULLY
BEFORE USING THE MACHINE**

FARMI[®]
FOREST

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FARMI 90

WARNING SYMBOLS IN THIS MANUAL



- imminent danger which could cause serious personal injury or death



- danger which could cause personal injury



- conditions or misuse that could damage equipment or machinery

NOTE!

- reminders, such as for performing checks or carrying out maintenance or repair procedures

INTRODUCTION

This manual includes the information and maintenance instructions required for operating the machine in the optimal manner.

Although you have experience in using this kind of machinery, read the operation and maintenance instructions carefully since they include information enabling efficient and safe operation. Regular maintenance is the best way to guarantee the efficient and economical performance of the machine.



Each and every operator must read, understand, and follow all safety instructions and procedures.

CUSTOMER FEEDBACK

We are happy to receive your opinions and suggestions for improvements by mail, fax or e-mail. All implemented suggestions for improvements will be rewarded.

PRODUCT WARRANTY

Farmi provides a 12-months warranty on all Farmi products.

Register on our home page (www.farmiforest.fi) under FeedBack ("Product Registration" form) within 30 days after the receipt of the product to get full product warranty and additional information on your product. If it is not possible for you to register via internet, please register as follows: Complete the registration form on the last pages of this manual and return it to us within 30 days after the receipt of the product.

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When ordering spare parts, please indicate machines type from the machine plate, spare parts order number, description and quantity required. Example. FFARMI 90, 54563291, slide bearing 1 pc



EC DECLARATION OF CONFORMITY

Manufacturer:

Farmi Forest Corporation
Ahmolantie 6, FIN-74510 IISALMI, Finland

Person authorized to compile the technical documentation:

Name: Heikki Sirviö
Address: Ahmolantie 6, FIN-74510 IISALMI, Finland

Commercial name:

Farmi

Machine denomination:

Forest trailer

Machine type:

FARMI 90

Machine series number:

Herewith, we declare that the machine brought into circulation conforms with the pertinent requirements of the Machinery Directive 2006/42/EC.

The following harmonized standards have been applied for the conceptual design of the machine:

EN ISO 12100, EN ISO 4254-1

Iisalmi
(Place)

24.11.2011
(date)

Juha Hallivuori

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GENERAL SAFETY INSTRUCTIONS

These safety instructions are meant for the owners of FARMI equipment, as well as those who operate, service or repair it.

The instructions help with:

- using the machine safely, appropriately and effectively.
- identifying, avoiding and preventing potentially dangerous situations.

The manufacturer supplies an instruction manual, which must always be available at the place of operation of the machine. Each user must read the safety, maintenance and operating instructions before operating the machine, and comply with these instructions at all times.



Ensure that every operator of the machine is familiar with the content of the instruction manual and situation-specific safety instructions, and has been suitably trained before operating the machine.

The machine complies with technical requirements and applicable safety regulations. However, incorrect use, maintenance or repair of the machine may cause risks.

In addition to the instruction manual, remember to comply with regulations of the local occupational health and safety authorities, and with your country's laws and decrees.

The manufacturer is not liable for damages caused by:

- incorrect, negligent or inappropriate use of the product.
- non-original spare parts.
- normal wear and tear.
- misuse caused by an untrained person's improper actions.
- alterations made without the manufacturer's permission.



Written authorization must be requested from the manufacturer for any alterations to the machine.

STARTING

- Familiarize yourself thoroughly with the use, operation and controls of the machine and its equipment before starting.
- Familiarize yourself with the capacities and limitations of the machine and its equipment.
- Do not use the machine unless you are completely familiar with its operation.
- Be aware of the machine's danger zones.
- During operation, prevent bystanders from entering the danger zone.
- Ensure that each operator has the necessary safety equipment, such as a helmet, safety goggles, work safety boots and suitable protective clothing.
- Never wear loose clothing around moving parts. Protect long hair!
- Ensure that work is carried out according to the stipulations of applicable occupational health and safety legislation.
- Before starting up or using the machine, ensure that it cannot cause a risk to other people or property.
- Perform a safety check on the machine before every use. If you observe any faults or deficiencies, repair the machine immediately.
- Before operating the machine, ensure that there are no foreign articles in it.
- Place the machine on a hard, level surface for operation. In the winter avoid working in slippery areas.
- Before mounting and using the machine, check the PTO drive shaft for correct condition and attachment.
- Never use a faulty or deficient machine.

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TRANSPORT

- Before driving with the machine, ensure the safe mounting of the machine. Make sure that the journals are seating correctly and that the pins are tight. Check the tension of the lower link stabilizers.
- Before driving with the machine, make sure that the required lamps and reflectors as well as the slow moving vehicle sign are attached correctly. Moreover, the lamps should be checked for correct functioning.
- Before driving with the attached machine, make sure that the hydraulic unit of the machine is depressurized (unless otherwise instructed in the operating instructions).
- When driving on public roads, always observe the valid traffic regulations. The travel speed must be adapted to the specific conditions.
- When driving, please take into consideration the additional mass resulting from the machine's weight. It may affect the reactions, the steerability and the braking function of the tractor.
- Please note that the machine rear sways when turning.
- Pay attention to the machine's height near bridges or other height restricting objects.
- When backing off, the machine may obstruct the rear view. Exercise extreme caution. If necessary, ask a flagman to help you; he can indicate the required distances.
- It is prohibited for other people to ride on the machine.

- If any faults arise that may jeopardize occupational safety, turn off the machine.
- During operation, the machine's operator is responsible for safety in the whole work area. Work may not be carried out in the presence of any factors that jeopardize occupational safety.
- Exercise extreme caution when hitching / unhitching the machine from a tractor/trailer.



The machine's operator must have constant, unobstructed visibility of the work area. If this is not possible, the operator must work with an assistant.

- Look out for moving parts when the machine is in operation.
- Secure the machine against unauthorized and accidental operation (e.g. moving when parked) whenever it is left unattended.
- Never leave the machine running unattended.
- Avoid causing fast, stroke-like loading.
- Never exceed the given operating values.
- All safety and warning signs on and in the machine must be legible and intact.
- The machine may not be operated by persons who are unwell or under the influence of drugs or alcohol.

OPERATION



Many occupational accidents take place in abnormal circumstances. Therefore it is important to take into account all the possible circumstances that may arise during operation of the machine.

- Depending on the machine's type, it will have diverse safety devices and protectors. These are meant to protect the machine and its operator, and they must never be removed or altered. Never start up or use the machine without all the safety devices and protectors in place. Also check the universal joint's safety equipment and joints.
- Never insert any body part into the machine with the engine running.

MAINTENANCE

- The machine may only be serviced and repaired by professionals.
- Electrical and hydraulic faults may only be repaired by authorized professionals.
- In cases requiring welding, contact the manufacturer.
- Turn off the tractor engine and disconnect the universal joint before beginning service or maintenance actions.
- Before any maintenance work, turn the main power switch of the tractor to OFF.
- Ensure that there is no pressure in the hydraulic system.
- Take out the key from the tractor's ignition for the duration of the servicing or maintenance. Check that the power is off from the machine you are working on.

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- When servicing the machine, place it on a level surface and ensure that it cannot be moved.
- Observe the service intervals and annual safety inspections.
- All spare parts and equipment must fulfill the manufacturer's requirements. This can be guaranteed by using original parts.
- Put all safety devices back into place immediately once servicing or maintenance is complete.



When lifting the machine, check that the lifting/hoisting equipment is in perfect working order. Check the weight of the machine before lifting it. Choose lifting trajectories so that they do not cause any danger.

Many countries have specific legislation on lifting, hoisting cables and hoists. Always comply with local safety regulations.

OILS AND LUBRICATION

- Always use the oil types recommended by the manufacturer. Other types of oil may cause faults or improper operation of the equipment, which could lead to serious damage to people or property.
- Never mix different liquids or oils.
- Always follow the manufacturer's lubrication instructions.
- Use control equipment carefully until the hydraulic oil has had time to reach its operating temperature.

SAFETY INSTRUCTIONS FOR HYDRAULIC CIRCUITS

1. Work on hydraulic equipment may only be carried out by professional hydraulic engineers.
2. Be cautious when using the equipment in cold conditions.
3. Check the machine for leaks. Do not use the machine if there is a leak from any system. Check all hydraulic hoses – particularly those which are bent during use – and replace any that are in poor condition or have leaks. Ensure that all joints are tight and that the lines are not damaged. Check that all protective caps and filler caps are closed properly. Check the hose sheathing for damage.
4. Check that all hose connectors, lengths and qualities comply with applicable requirements. When replacing or repairing hoses, use original parts or hoses and connectors recommended by the manufacturer. Check particularly that the pressure classes of the hoses and connectors are suitable to the operating pressure levels.
5. Check that all safety devices such as pressure relief valves, etc., are in place and work properly. Familiarize yourself with their use. Safety systems may never be bypassed.
6. Check the main hydraulic parts daily, and always after a fault. Replace any damaged parts immediately.
7. Before any repair/maintenance, carefully clean the area to be repaired/maintained. Do not use solvents when cleaning parts.
8. Do not attempt to carry out repairs that you are not fully familiar with.
9. Never carry out repairs of the hydraulic circuit when the system is pressurized. When pressurized, the oil spray can penetrate the skin and cause mortal danger.
10. Never work below a device or component that is only being held up by hydraulics. Use separate supports when carrying out maintenance or repairs. Do not disconnect cylinders or their valves until the machine is well supported.
11. Most hydraulic oils do not evaporate easily. Risk factors include hot oil, spills and oil mist (pressurized).
12. If oil gets into your eyes, rinse with plenty of water and contact a doctor.
13. Avoid prolonged or repeated contact with your skin.
14. If sprays or contact with the skin cannot be avoided, use protective gloves, goggles and clothing as necessary. Do not use oily clothing.

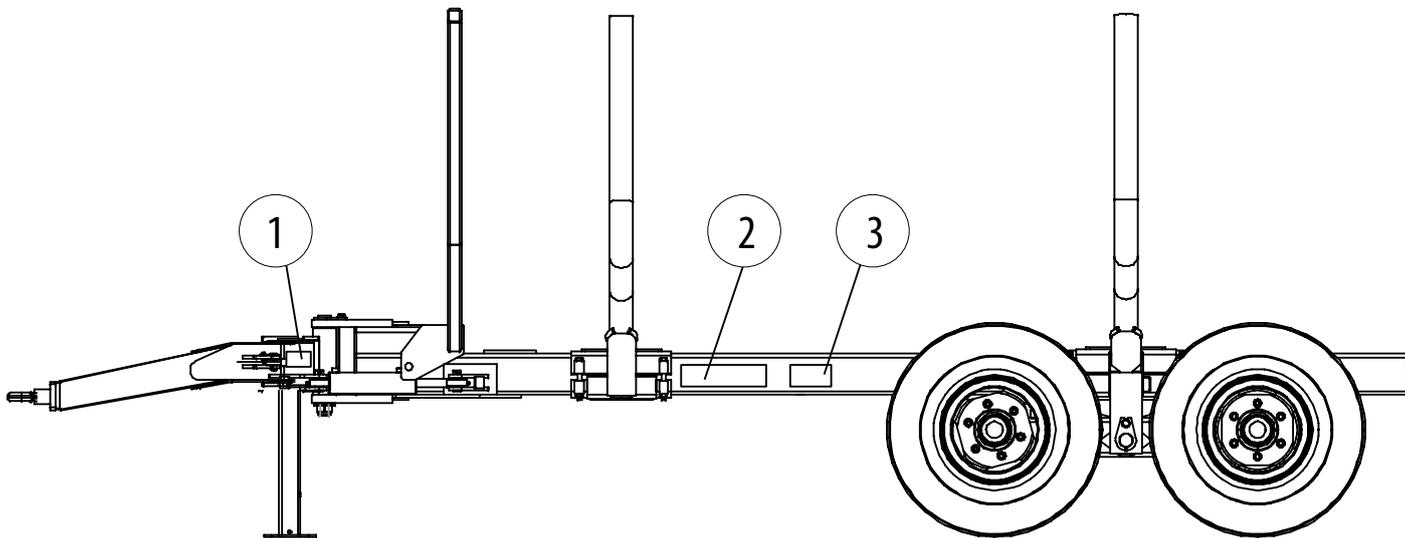
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15. Avoid discharging hydraulic oil into the environment, as it can pollute waterways and the groundwater. If biodegradable oil is to be used, please contact the manufacturer beforehand and have the suitability of your equipment for the operation with biodegradable oil confirmed by him before such oil is used.
16. Store the oil in sealed containers provided by the manufacturer. Try to transfer the oil directly from its container into the tank.
17. If the oil must be passed through other containers, ensure that they are completely clean. Caps, funnels, sieves and filling holes must also be clean.
18. Never store oil outdoors, as water could condense in it.
19. Always dispose of oil in a suitable container, never into the environment!

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STICKERS AND PLATES

The following plates and labels must be correctly attached to the machine. Missing safety plates / labels must be replaced immediately.

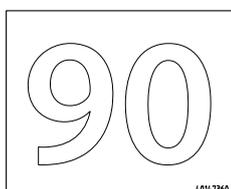


| | | |
|--|----------------|-----------|
| Farmi Forest Corporation | | CE |
| Ahmolantie 6 FIN-74510 IISALMI FINLAND | | |
| TYPE | FOREST TRAILER | 40146320 |
| MODEL | FARMI 90 | |
| SERIAL NO. | | |
| YEAR OF MANUFACTURE | 20 | |
| OWN WEIGHT | 1100 kg | |
| MAX. TOTAL WEIGHT | 10100 kg | |

1. Machine plate FARMI 90 (40146320)



2. Farmi Forest (40146900)

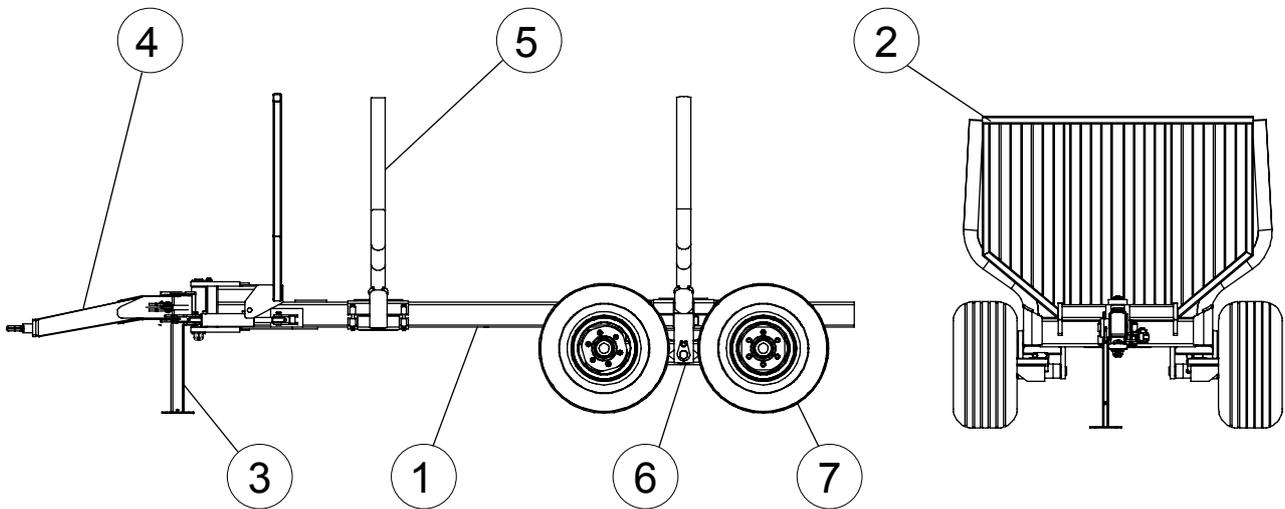


3. Sticker 90 (40147360)

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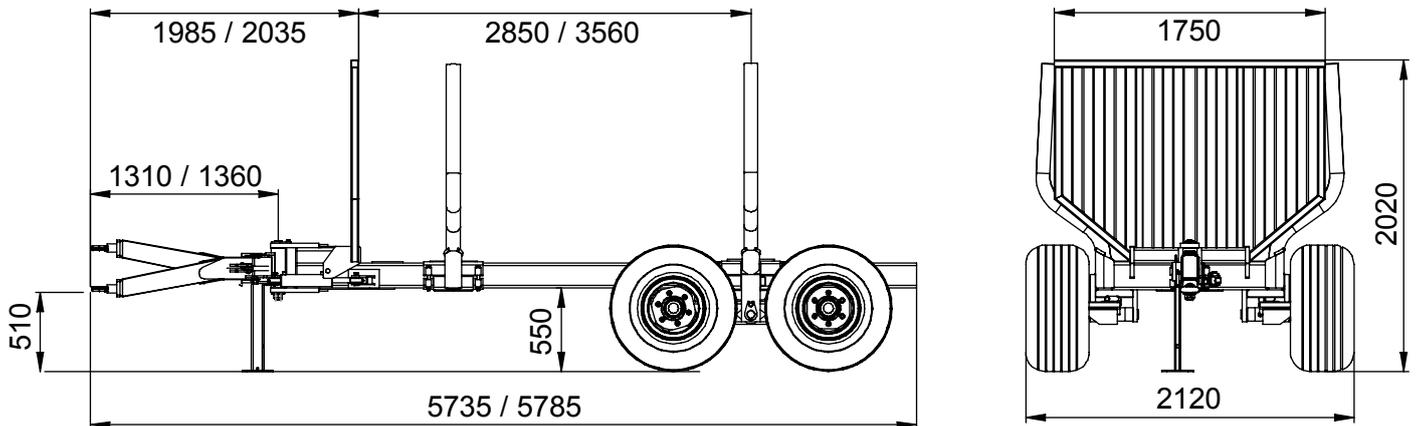
| TECHNICAL DATA | FARMI 90 |
|---|--|
| Load capacity | 9000 kg |
| Dead weight of the trailer | 1100 kg |
| Max. permissible total weight of the trailer | 10100 kg |
| Max. permissible towing speed | 40 km / h |
| Max. permissible vertical load on the drawbar eye | 1500 kg |
| Loading area | 2,15 m ² |
| Tyres | 400/60-15,5 TT PR14 |
| Recommended cranes | FARMI 4067 FARMI 4066 FARMI 3967 |

MAIN COMPONENTS



- 1. Frame
- 2. Screen
- 3. Support leg
- 4. Draw bar
- 5. Stay
- 6. Boggie
- 7. Tyre

DIMENSIONS



MOUNTING, DISMOUNTING AND PARKING OF TRAILER/CRANE COMBINATION



Please ensure the following before mounting a trailer to a tractor

- the trailer/crane combination must be in perfect condition
- the maintenance and checking measures must be carried out according to the maintenance instructions.

According to the instruction manual of the tractor, check whether the max. permissible load of the pulling device exceeds the permissible load of the trailer coupling ring (as per the trailer's technical data).

MOUNTING A TRAILER/CRANE COMBINATION TO A TRACTOR

Please ensure that the pulling device has locked in the operating position before mounting the trailer to tractor.

1. Lift the outrigger to the driving position.
2. Connect the hydraulic hoses of the hydraulic steering to the tractor.
3. Connect the hydraulic hoses of the crane to the tractor; see chapter "Connection to hydraulic unit" for details.
4. Make sure the support legs are in the transport position.
5. If the trailer is equipped with a brake, connect the brake's connections and hoses to the tractor. Before driving with the machine, ensure correct functioning of the brake.
6. Remove all locking elements placed in front of/behind the tires. Please ensure that the combination can be freely driven before starting the machine.

DISMOUNTING A TRAILER/CRANE COMBINATION FROM A TRACTOR

Please ensure that the ground is level and stable before dismounting and parking the trailer.

1. Put locking elements front of/behind the trailer's tires in order to avoid trailer movement during parking.
2. Disconnect the crane hydraulic hoses from the tractor.
3. Disconnect the brake connections and hoses from the tractor.
4. Disconnect the hydraulic steering hoses from the tractor.
5. Swivel the outrigger to the parking position and secure it.
6. Detach the trailer from the tractor.

HYDRAULIC STEERING

The trailer is equipped with hydraulic steering. The hydraulic steering is composed of two double-acting hydraulic cylinders and the associated hydraulic hoses. The hydraulic pressure required for the cylinders is generated by the tractor's hydraulic system. The tractor must have a double-acting multi-way valve for the hydraulic steering. The maximum operating pressure is 200 bars. Under no circumstances may the the pressure exceed the maximum permissible value.

Always bleed the hydraulic system before using the hydraulic steering.

1. Attach the trailer to the tractor.
2. Remove all locking elements placed in front of/behind the tires.
3. Make sure there is nobody in the danger zone of the forest trailer/crane combination.
4. Connect the hoses of the hydraulic steering to the tractor.
5. Open the multi-way valve slightly and with caution to operate the hydraulic steering.
6. Slowly operate the steering from one limit stop to the other to bleed the cylinders completely.
7. Bleeding has been accomplished when smooth steering movements are obtained and the steering responds directly to the control of the multi-way valve.

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MAINTENANCE

| OBJECT | ACTION | | |
|---|--|--|---|
| | Maintenance interval, working hours | | |
| | 8 h, or after working shift | 50 h, or after working week | After 250 working hours or once a year |
| General | Check cylinders and leakages in hoses | Check pins and lockings Check fastening bolts | Check the condition of primary structures |
| Drawbar eye | | Lubricate axis of rotation of the drawbar eye Check torque of the mounting screws | |
| Drawbar joint | Lubricate slide bearings | Check torque of the journal | |
| Hydraulic steering cylinder | Lubricate swing bearings Check condition of piston rod and piston rod oil scraper Check condition of hoses and couplings | Check journals and locks | Check cylinder bearings |
| Bearings of the floating bogie | Lubricate slide bearings | Check journal lock for correct seat | Check condition of the slide bearings |
| Load backrest, adjustable sets of bolsters, tandem bogie | | Check torque of bolts and nuts | |
| Tires | | Check condition of tires, torque of mounting screws and tire pressure | |
| Hubs | | | Check condition of the hub bearings Lubricate bearings Check condition of the brake |

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MAINTENANCE

- Maintenance work must be carried out regularly to ensure safe and trouble-free operation.
- Always use the appropriate tools.
- Determine the location of the defect.
- Keep the disassembled sections, removed parts, and the repair area protected from dirt.
- Clean the parts using kerosene, never fuel oil.

LUBRICATION

Refill fresh grease until some old grease escapes. Wipe off excess grease.

CHECK AND LUBRICATE HUBS

Remove the hub cap. Check the bearing case for ingress of water. If there are signs of water, rust or dirt, disassemble and carefully clean the hub. Replace bearings and seals if necessary.

When assembling the hub, apply grease to the sliding surfaces of the bearings. Then lubricate and relubricate as follows:

1. Open the bleed screw.
2. Grease the bearings through the nipples until some of the existing grease escapes through the bearings.
3. Do not use too much grease; otherwise, the hub can overheat during travel.
4. Afterwards, close the bleed screw and remount the hub cap.

On a hub equipped with a brake check the condition of the brake shoes. If the friction surface has worn down to less than 2 mm, replace the brake shoes. Clean the brake parts and the brake drum before assembly. Slightly lubricate the articulated joints.

REPLACING BEARINGS

- When installing bearing sleeves, use an appropriate drift.
- Make sure that the new bearing's grease hole meets the nipple.
- If the bearings have grease pockets, fill these with Vaseline.

PRESSURE MEASUREMENT

Always make the adjustments with the manometer in place.

- The main pressure is measured from the measuring point in the control valve's inlet section.
- Adjustments and inspections for each movement:
 - Set the main pressure relief valve to 5 bar above the value set for the protective valve.
 - Perform the movement, and check and adjust the pressure if necessary.
 - Finish by adjusting the main pressure to the set value.
- Pressure measurements are to be performed at the normal operating temperature and at the normal flow rate.
- The free flow pressure can be read from the manometer when the flow of oil is directed through the valve.

REPAIR WELDING

If welding is required for modifying or repairing the crane, note the following:

- The welder must be qualified: welding grade 3. There must be no root defects.
- Remove paint and any oil from the location to be welded.
- Connect the ground terminal directly to the piece to be welded – there must be no joints in between.
- Use OK 48.00 or equivalent electrodes. The electrodes must be dry.
- Improperly welded structures can get fractured.

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CHECKING TIRE PRESSURE

- Only use appropriate tools for checking and adjusting tire pressure.
- Do not exceed the recommended maximum pressure.

- Check tyre pressure.

400/60-15,5 TT PR 14 3,6 bar

400/60-15,5 ELS PR 14 3,6 bar

500/55-17 ELS PR12 3,1 bar

REPLACING HYDRAULIC HOSES

- When changing hydraulic hoses, clean the new hoses, at least with compressed air.
- Check that the hoses are connected properly after the change.
- If any hoses are removed for long periods of time, protect the ports properly.
- Let the pump rotate slowly to bleed the air from the system after changing hoses or components.

TROUBLESHOOTING TABLE

| PROBLEM | CAUSED BY | MEASURES |
|----------------------|--|----------------------------------|
| BRAKE IS INEFFECTIVE | TOO LITTLE PRESSURE IS BEING FED TO THE BRAKES | CHECK PRESSURE |
| | BRAKE SHOES OR DRUMS ARE WORN | CHANGE BRAKE SHOES OR DRUMS |
| | BRAKE CYLINDER IS FAULTY | REPLACE OR REPAIR BRAKE CYLINDER |
| | BRAKE HOSE IS LEAKING OR FAULTY | CHECK HOSES AND CONNECTIONS |
| | BRAKE CYLINDER SEALS ARE FAULTY | REPLACE SEALS |

LUBRICANT RECOMMENDATIONS

Before carrying out lubrication or maintenance work, switch off the main engine. Never clean, lubricate or maintain a machine that is in operation.

Ensure that lubrication and maintenance are carried out regularly by following the lubrication and maintenance schedules given in the lubrication diagram.

Check the machine daily to ensure timely discovery of wear and tear and any damage.

When carrying out maintenance work, use appropriate tools that are in good condition.

Keep flammable items away from open fire.

| RECOMMENDED LUBRICANTS | |
|------------------------|---|
| Brand | Type |
| BP | Energrease LS-EP2, L21M |
| EXXON | Beacon EP2, Multipurpose GR Moly |
| MOBIL | Mobilux EP2, Mobil Grease MP, Special |
| SHELL | Alvania EP Grease 2 |
| UNION / TEXACO | Marfak Multi-purpose 2, Molytex Grease 2 |
| TEBOIL | Universal CLS |

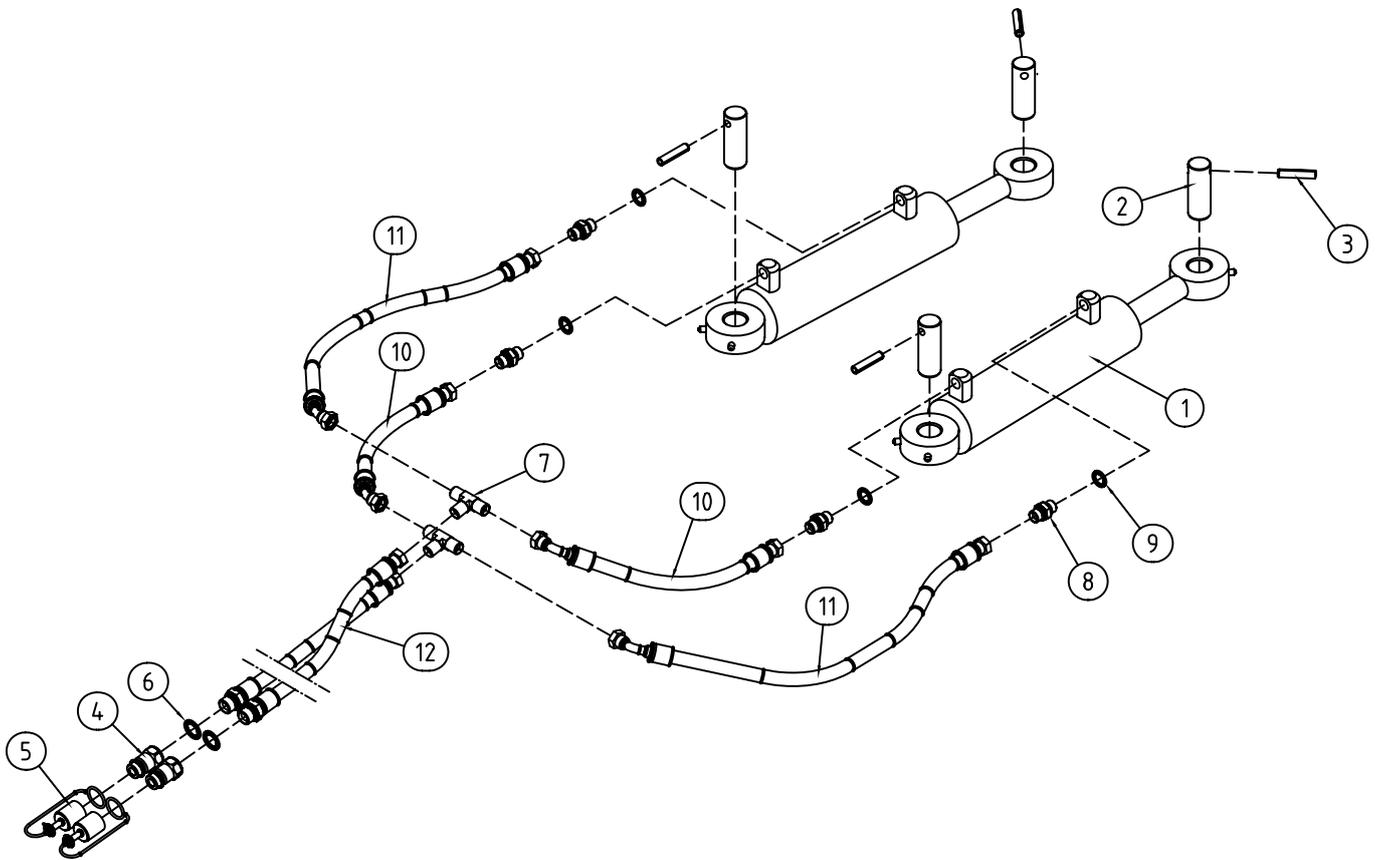
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| Part | Order no | Description | Remarks | Qty |
|------|----------|-----------------------------|------------------------------|-----|
| 1 | 34082700 | Frame | | 1 |
| 2 | 34082830 | Bolster bogie | | 1 |
| 3 | 34082920 | Screen | | 1 |
| 4 | 44083270 | Bolster | complete | 2 |
| 4.1 | 34083100 | Bolster | | 1 |
| 4.2 | 44083160 | Stake | | 2 |
| 4.3 | 44083190 | Bolster fastener | | 2 |
| 4.4. | 52062676 | Screw | M20X180 DIN931 88ZN | 4 |
| 4.5 | 52117207 | Lock nut | M20 DIN985 8ZN | 4 |
| 4.6 | 52200630 | Washer | M20 DIN6340 ZN 0495-020 | 8 |
| 5 | 44083210 | Fastener | | 1 |
| 6 | 44081300 | Draw bar | | 1 |
| 7 | 44081210 | Bogie beam | without brakes | 2 |
| 8 | 44081450 | Bogie beam, right | one hub with brakes | 1 |
| 9 | 44081460 | Bogie beam, left | one hub with brakes | 1 |
| 10 | 44085320 | Bogie beam | two hubs with brakes | 2 |
| 11 | 44081530 | Parking support | | 1 |
| 12 | 44081760 | Draw bar pin | | 1 |
| 13 | 44082050 | Draw bar locking pin | D30 | 1 |
| 14 | 44083240 | Bogie pin | | 2 |
| 15 | 44082070 | Parking support pin | | 1 |
| 16 | 54563291 | Slide bearing | | 6 |
| 17 | 52842135 | Cotter | 4X80 | 1 |
| 18 | 52401023 | Grease nipple | AM6 | 3 |
| 19 | 52062676 | Screw | M20X180 DIN931 88ZN | 4 |
| 20 | 56094576 | Hexagonal socket head screw | M16x50 DIN912 12.9 | 6 |
| 21 | 52062130 | Screw | M16X60 DIN931 88ZN | 6 |
| 22 | 52001294 | Hexagonal socket head screw | M16X30 DIN912 88ZN | 1 |
| 23 | 52117314 | Lock nut | M36 DIN985 | 1 |
| 24 | 52117207 | Lock nut | M20 DIN985 8ZN | 4 |
| 25 | 52117165 | Lock nut | M16 DIN985 8ZN | 7 |
| 26 | 52200136 | Washer | M36 DIN125 58ZN | 1 |
| 27 | 52214285 | Lock washer | M16 NORD-LOCK | 6 |
| 28 | 52200630 | Washer | M20 DIN6340 ZN 0495-020 | 8 |
| 29 | 52200078 | Washer | M16 DIN125 58ZN | 7 |
| 30 | 34080460 | Rear cover | only in models with brake | 1 |
| 31 | 54839850 | Hub | with brakes | |
| 32 | 54839717 | Hub | without brakes | |
| 33 | 24083280 | Hydraulic steering | see separate spare part page | |
| 34 | 04073530 | Draw bar eye | turning | 1 |
| | 54819200 | Draw bar eye | fixed | 1 |
| 35 | 44083190 | Bolster fastener | | 1 |

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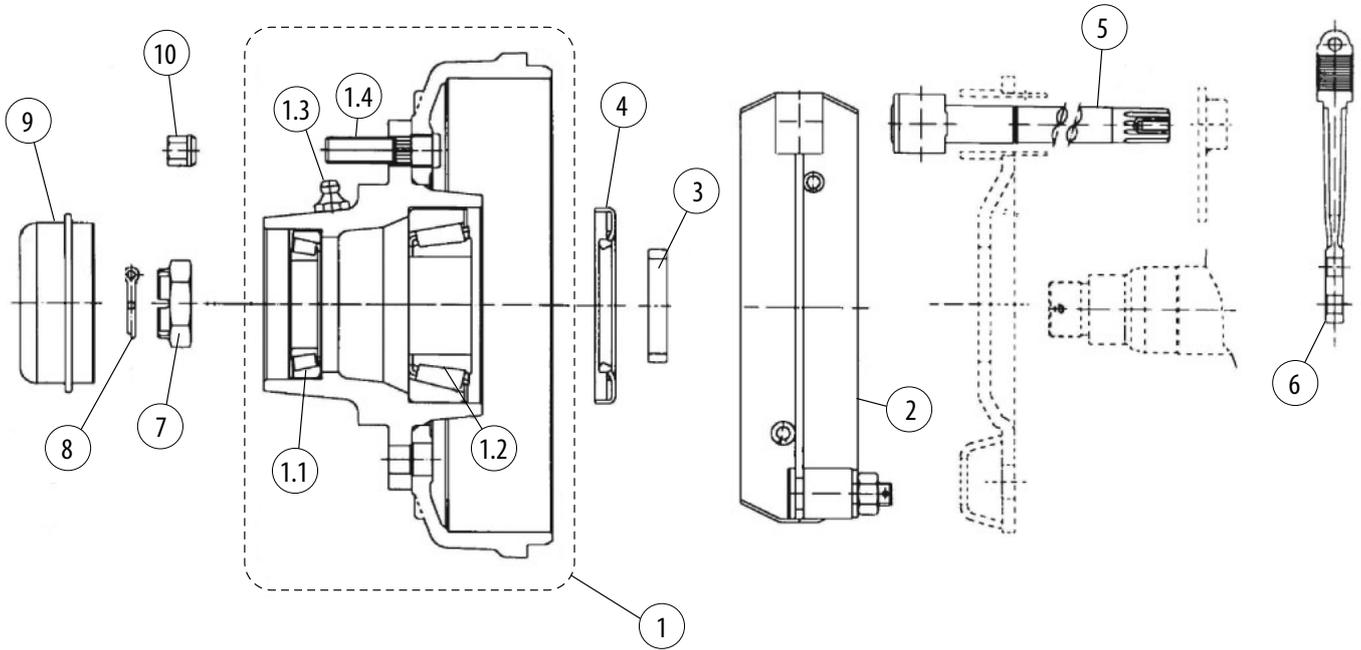
24083280 HYDRAULIC STEERING



| Part | Order no | Description | Remarks | Qty |
|------|----------|--------------------|--------------------------|-----|
| 1 | 58220400 | Hydraulic cylinder | | 2 |
| 2 | 44082100 | Pin | | 4 |
| 3 | 52840337 | Cotter pin | 10X50 DIN1481 | 4 |
| 4 | 52449022 | Quick fitting | 1/2" SK | 2 |
| 5 | 54922141 | Plug | 1/2" | 2 |
| 6 | 52390200 | Usit-ring | U21,54X28,58X2,49 | 2 |
| 7 | 52443678 | T- nipple | R3/8 702-6 | 2 |
| 8 | 52432028 | Double fitting | R3/8 | 4 |
| 9 | 52390556 | Usit-ring | U17,28X23,8X2,03 | 4 |
| 10 | 56521024 | Hose assy | V3/8"S L=0,35M | 2 |
| 11 | 44083290 | Hose assy | V3/8"S L=0,62M | 2 |
| 12 | 44083300 | Hose assy | S3/8"S - UK R1/2" L=2,3M | 2 |

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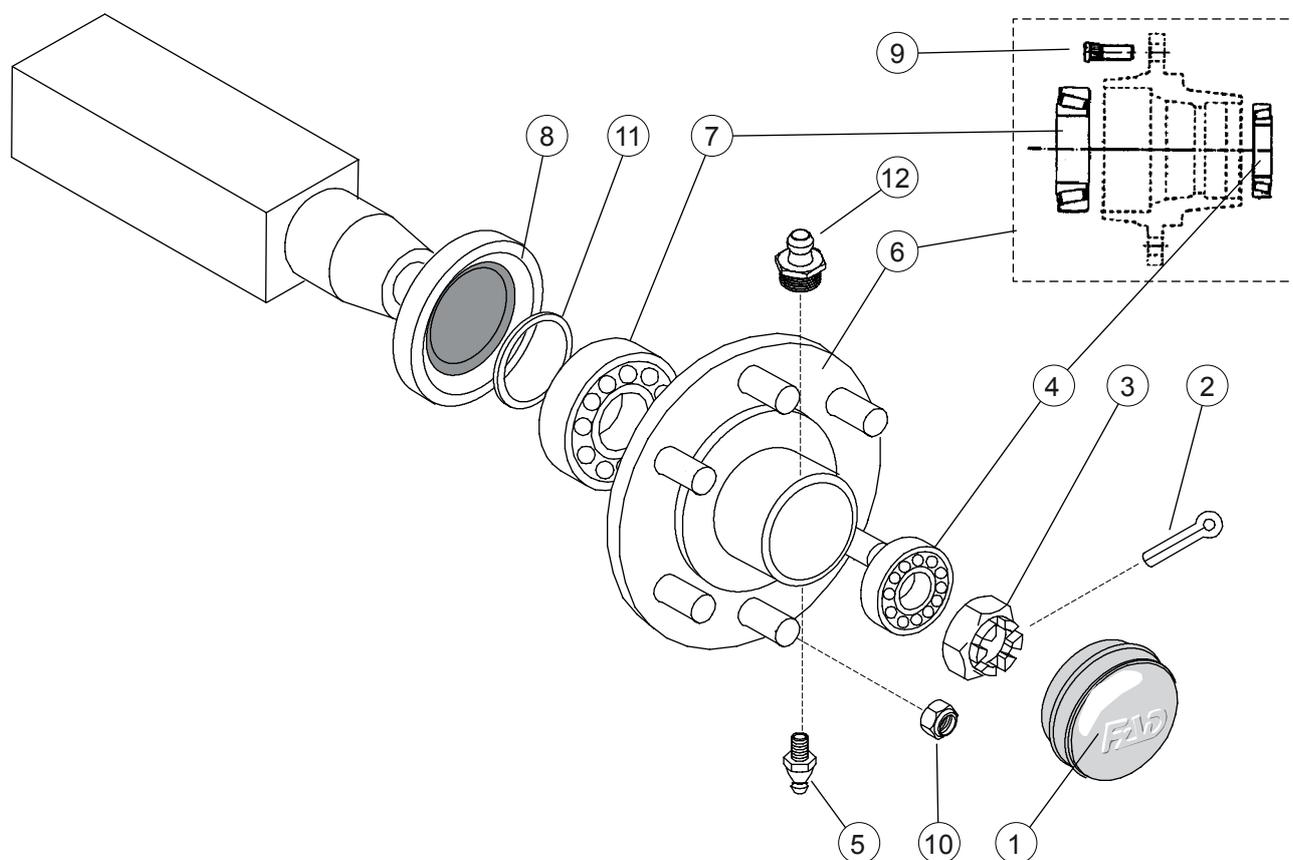
54839850 6-BOLTS HUB WITH BRAKES



| Part | Order no | Description | Remarks | Qty |
|------|----------|----------------|-------------------|-----|
| 1 | 54839851 | Brake drum | complete | 1 |
| 1.1 | 54839852 | Outer bearing | | 1 |
| 1.2 | 54839853 | Inner bearing | | 1 |
| 1.3 | 54839854 | Grease nipple | | 1 |
| 1.4 | 58214594 | Bolt | M18X1,5X62 | 6 |
| 2 | 54839855 | Brake shoe | | 2 |
| 3 | 58220542 | Retaining ring | | 1 |
| 4 | 58221730 | Seal | 120X80X12 | 1 |
| 5 | 58214529 | Brake axle | | 1 |
| 6 | 54843362 | Brake lever | | 1 |
| 7 | 58220526 | Castle nut | | 1 |
| 8 | 58220559 | Split pin | | 1 |
| 9 | 58220534 | Dust cover | | 1 |
| 10 | 58214537 | Nut | M18x1,5 DIN74361A | 6 |

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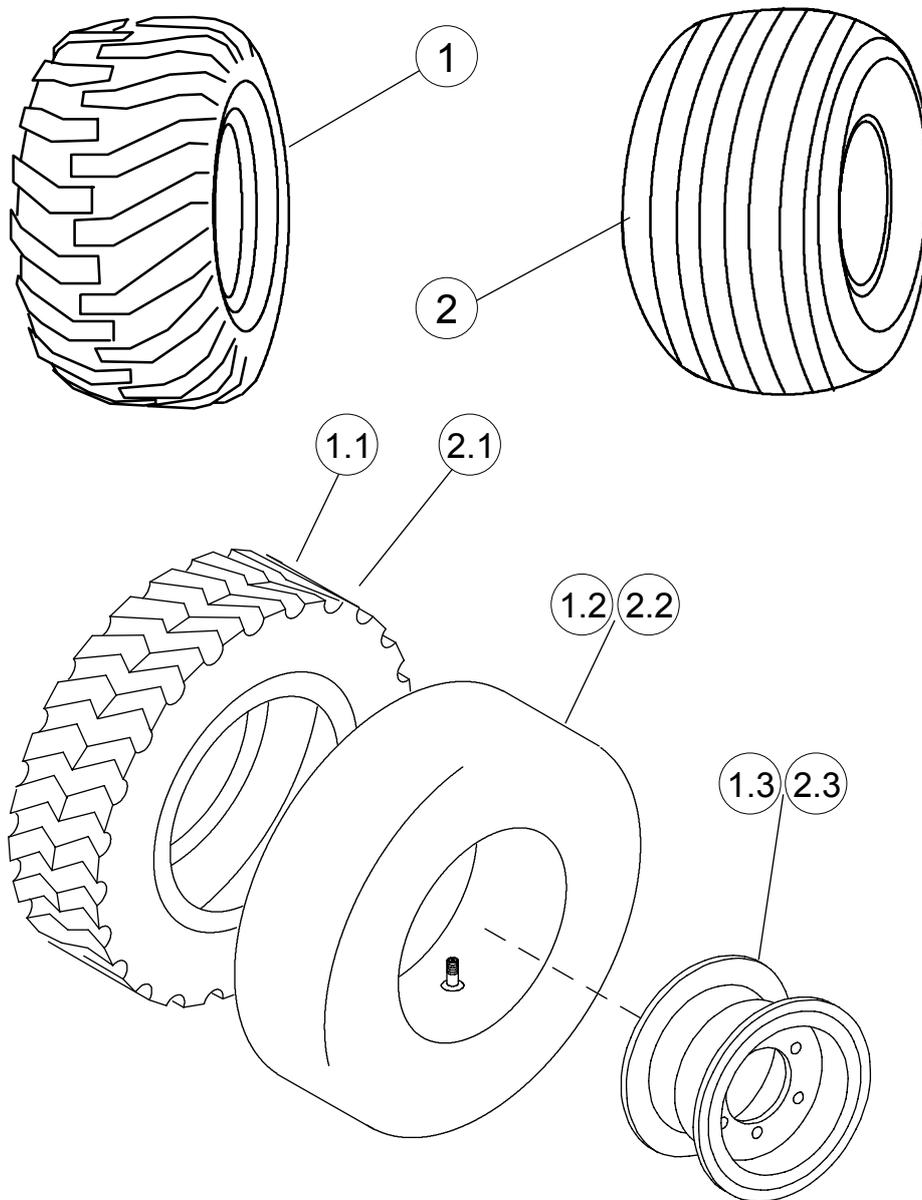
54839717 6-BOLTS HUB WITHOUT BRAKES



| Part | Order no | Description | Remarks | Qty |
|------|----------|----------------|---------------|-----|
| 1 | 58220534 | Dust cover | | 1 |
| 2 | 52813235 | Split pin | 6X50 DIN94 ZN | 1 |
| 3 | 58220526 | Castle nut | | 1 |
| 4 | 58220492 | Bearing | | 1 |
| 5 | 58220658 | Grease nipple | | 1 |
| 6 | - | Hub | | 1 |
| 7 | 58220500 | Bearing | | 1 |
| 8 | 58221730 | Seal | | 1 |
| 9 | 58214584 | Bolt | M18X1,5X49 | 6 |
| 10 | 58214537 | Nut | M18X1,5 | 6 |
| 11 | 58220542 | Retaining ring | | 1 |
| 12 | 58220666 | Grease valve | | 1 |

FARMI 90

TYRES



| Part | Order no | Description | Remarks | Qty |
|------|----------|-------------|-----------------------------------|-----|
| 1 | 03421510 | Tyre | 400/60-15.5, TRI OFFS.-15 3,6 bar | 4 |
| 1.1 | 54849047 | Tyre | | 1 |
| 1.2 | 54847025 | Inner tube | | 1 |
| 1.3 | 54811030 | Wheel disc | | 1 |

WARRANTY

Farmi Forest Oy grants a 12-month warranty on all of its products, covering material and manufacturing faults. The warranty comes into effect on the product's delivery date.

The manufacturer is not liable for damages caused by:

- misuse of the product
- alterations or repairs made without the manufacturer's permission
- insufficient maintenance
- non-original parts

The warranty does not cover wearing parts.

Send faulty parts, carriage paid, to the manufacturer for inspection. Repairs will be conducted by Farmi Forest Oy or an authorized expert. The warranty is valid only if the bottom part of this page is filled in and returned to the manufacturer within 14 days of receipt of the product. By returning the warranty certificate, you confirm that you have read and understood the instruction manual that came with the product.



Farmi Forest Corporation
Ahmolantie 6
FIN-74510 IISALMI
FINLAND



PRODUCT REGISTRATION FORM

Date of delivery: ____/____ 20____

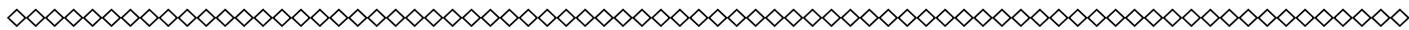
Dealer: _____

Dealer's address: _____

Dealer's tel: _____

Product and type: _____

Serial number: _____



Return to the manufacturer



Date of delivery: ____/____ 20____

Dealer: _____

Dealer's address: _____

Dealer's tel: _____

Customer: _____

Customer's address: _____

Customer's tel: _____

E-mail: _____

Product and type: _____

Serial number: _____





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