OPERATING MANUAL

Asphalt paver wheeled

F80W

Hatz

EN 4812077835

DYNAPAC
FAYAT GROUP

	F80W	
	EU Stage V, U.S. EPA Tier 4f	
Brakes		
Operating	-	Hydrostatic
Parking	-	mechanical
Emergency	-	mechanical
Fluid capacities		
Fuel	l (gal US)	5 (1,3)
Engine (oil filling)	l (gal US)	2,2 (0,6)
Hydraulic system	l (gal US)	20 (5,3)
Lubricating substances	kg/lb	0,1 (0,22)
Gas bottle with the maximum volume	kg/lb	10 (22)
Maximum operating pressure	bar/PSI	2 (29)
Recommended operating pressure	bar/PSI	0,6-0,8 (8,70-11,60)
Gas type	-	Propan-Butan (LPG)
Hopper		
Hopper capacity	kg (lb) / m^3	1600 (3527) / 0,6
Length of embankment area	mm (in)	1100 (43,3)
Paving		
Paving capacity	kg/h (lb/h)	22000 (48501640)
Paving thickness	mm (in)	5-100 (0,2-3,9)
Screed		
Minimum paving width without reduction plates (standard equipment of the machine)	mm (in)	800 (31,5)
Maximum paving width without reduction plates (standard equipment of the machine)	mm (in)	1300 (51,2)
Minimum paving width with reduction plates	mm (in)	250 (9,8)
Maximum paving width with reduction plates	mm (in)	750 (29,5)
Minimum paving width with mechanical extension	mm (in)	1150 (45,3)
Maximum paving width with mechanical extension	mm (in)	1650 (65)
Wiring		
Voltage	V	12
Battery capacity	Ah	77
Noise and vibration emissions		
Measured sound power level A, L_{pA} at the operator's position (platform) *	dB	80
Uncertainty K_{pA} *	dB	2
Guaranteed sound power level A, L_{WA} **	dB	104
Declared highest weighted effective value of vibration acceleration transmitted to the whole body (platform) ***	m/s^2 (ft/s^2)	0,6
Declared total value of vibration acceleration transmitted to hands (platform) ***	m/s^2 (ft/s^2)	3,0

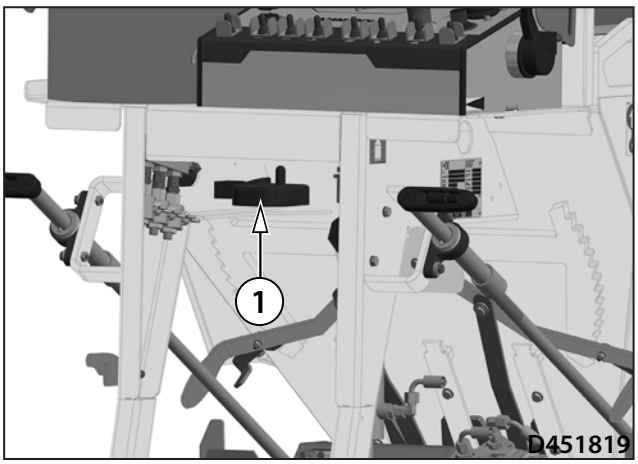
* measured according to EN 500-4

** measured according to DIRECTIVE 2000/14/EC

***measured according to EN 1032+A1 at a place, operating units in operation

1.3.3.6 Additional lighting

Additional lighting (1) serves for lighting the area of the screed and augers.



Mount the additional lighting according to the Mounting Manual.

Additional lighting kit
Order number: 4812061020

The additional lighting kit consists of the following components:

- Additional lighting (1),
- Mounting material.

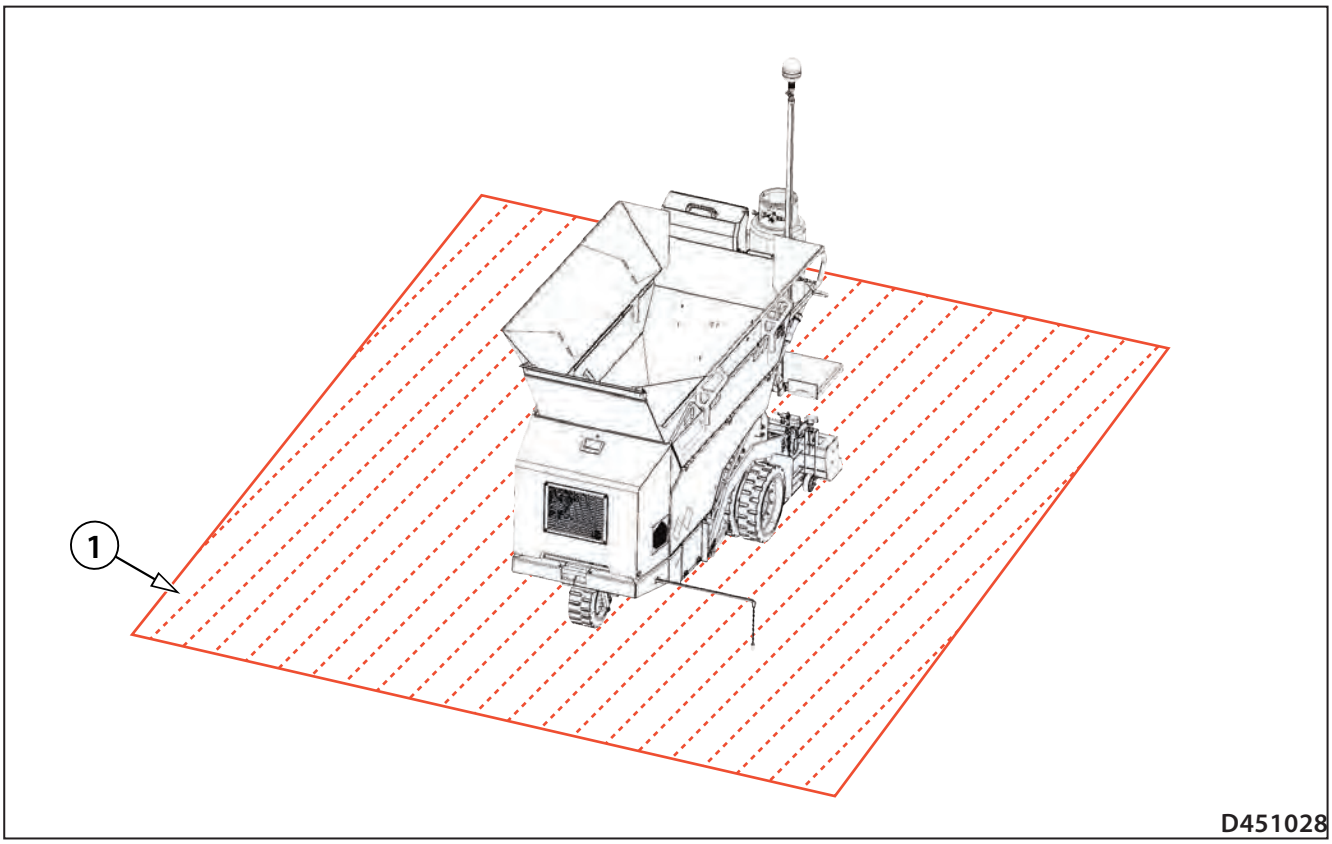
Operating the additional lighting:

The additional lighting is fitted with its own switch, on the rear of the light, which is used to switch the light on and off.

During mounting of additional lighting the machine must be parked on a flat and solid surface with the engine and battery disconnecter off.

Use personal protective equipment.

2.1.7 Dangerous zone and safe distance



Dangerous zone of the machine:

During the operation of the machine and paving no people may be present and stay in the dangerous zone of the machine.

The dangerous zone of the machine (1) may only be entered into for the purpose of maintenance and cleaning of the machine when the conditions below are met:

- when the machine is stationary and secured against spontaneous start-up,
- the entry is only permitted to professionally qualified, instructed and trained personnel authorised to operate and maintain the machine.

During the operation of the machine and paving no people may be present and stay in the dangerous zone of the machine.

The machine user as well as the machine operator must ensure adherence to the prohibition to enter the dangerous zone of the machine during its operation.

These requirements during operation of the machine are considered binding with regard to the safety of people.

Dynapac assumes no responsibility in cases when the machine is operated incorrectly or is used incorrectly in operating modes which may result in an injury or death, damage to the machine or property.

18

First-aid kit

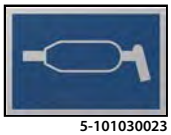
2427bz

Identification of the place for depositing the first-aid kit.

The machine must be equipped with the first-aid kit according to the national regulations for first aid measures.

19

Lubrication points

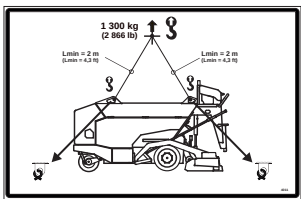


5-101030023

Lubrication points on the machine equipped with a grease nipple.

20

Lifting diagram



To lift the machine, use binding means of sufficient loading capacity.

21

California Proposition 65

4055bz

Exhaust gases and their components, operating fluids, batteries and other machine accessories contain chemicals known in the state of California to be substances which may cause cancer, congenial defects and other reproduction problems.

When handling these substances, abide by relevant safety precautions.

Further information see www:

www.p65warnings.ca.gov

Always start and operate the engine in a well-ventilated area.

If in an enclosed area, vent the exhaust to the outside.

Do not modify or tamper with the exhaust system.

Do not idle the engine except as necessary.

2.2.3 Preservation and storage of the machine for a period over 2 months

Before storing the machine, clean and wash the whole machine.

Before putting the machine out of operation, start the machine to warm operating fluids up to the operating temperatures. Then refill the operating fluids up to the levels specified in this Operating Manual.

Before preserving and storing, clean the machine from coarse impurities and wash.

Wash the machine only in areas with intercepting traps to intercept the contaminated water and detergents.

Park the machine on a flat solid surface in a safe area when there is no danger of damage to the machine by a natural disaster, e.g. landslides, floods and fire.

The following tasks must be performed first on the machine:

- the front blade of the hopper must be folded down and secured,
- the machine screed must be put horizontally on a flat and solid surface,
- protective covers of the individual instruments and machine covers must be locked,
- if the machine is equipped with a gas bottle, the gas bottle must be removed from the machine and stored in a special area.

Then it is recommended to perform the following tasks:

- repair damaged paintwork,
- service lubrication points according to instructions stated in the manual,
- check the pressure in tyres if the machine is equipped with wheels; protect the tyres from direct sunlight,
- check that the water tanks are drained if they are on the machine,
- check that the coolant has the desired antifreeze properties,
- remove the batteries from the machine; recharge them according to instructions of the manufacturer and store them in special areas,
- apply chemical preservatives on chromium-plated surfaces of piston-rods,
- we recommend you to protect the machine from corrosion by applying a chemical preservative, particularly in areas where corrosion can occur,
- protect all rubber parts of the machine with chemical preservatives,
- seal the holes, through which atmospheric precipitations can penetrate in internal cavities of parts of the individual components of the machine,
- Protect the head lamps and side rear-view mirrors with chemical preservatives,
- protect other elements of the external electrical installation using a special spray,
- preserve the engine according to instructions of the manufacturer of the engine and mark visibly that the machine has been preserved.

Never start the engine of the machine during storage!

A machine stored for a time interval longer than 2 months must be regularly inspected according to the following instructions, every 6 months in mild climatic conditions, every 3 months in tropical, cold, arctic and seaside conditions.

In order to protect components of a machine stored for a time interval longer than 2 months, during the regular inspections remove the chemical preservatives and put the machine into operation to rebuild the oil film in various hydraulic and mechanical parts of the machine. If you want to keep storing the machine in the long term, complete the preservation and storage procedure for the time interval longer than 2 months.


ACZ015

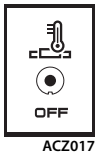
Ignition box (11)

Switch with three positions:

- Position "0": engine OFF.
  - No electrical devices are powered.
- Position "1":
  - All electrical devices are powered.
- Position "2": Starting up of the engine


ACZ016

Warning horn (12)



ACZ017

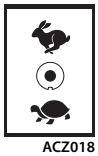
Screed heating switch (13)

It is used for turning on the screed gas heating.

- Upper position – turned ON
- Lower position – turned OFF

Paving speed selector (14)

Active only in the operating mode. The maximum speed in the operating mode is 0.7 km/h (0.43 MPH).


ACZ018

Transport/operating mode switch (15)

- Transport mode ("rabbit")
  - Material feed to augers, vibration and screed lowering functions are deactivated.
  - The screed can be retracted and raised in transport mode.
  - The maximum travel speed forward and backward is 2.2 km/h (1.37 MPH).
  - Pressing the foot switch enables reverse travel.
- Operating mode ("turtle")
  - Material feed to augers, vibration and screed lowering functions can be activated.
  - The maximum travel speed forward is 0.7 km/h (0.43 MPH).
  - The machine backward travel function cannot be activated in the operating mode.


ACZ019

Selector switch of the material delivery operating mode – MAN/AUT (17)

- AUT – automatic mode of material delivery
  - the machine moves in the operating mode,
  - the amount of material in front of the screed is controlled by the swinging sensor.
- MAN – manual mode of material delivery
  - the machine moves in the operating mode;
  - switching to MAN activates the conveyor and auger direction switch (18);
  - make sure there is a sufficient amount of material in front of the screed.


ACZ020

Conveyor and auger direction switch (18)

It serves for the operation of the material conveyor and augers. The function is only active in the operating mode.

The switch is superior to the MAN/AUT material feed operating mode switch (17) – can also be used in AUT mode.

- Upper position – reversing
- Central position – no material distribution
- Lower position – material distribution active

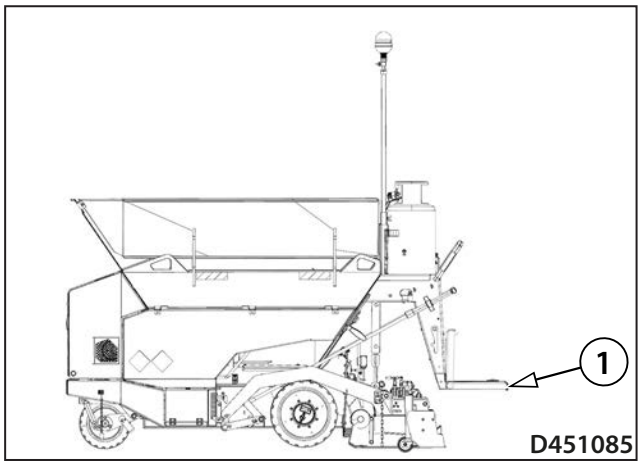
2.5.3 Machine footboard

During the operation of the machine the footboard of the machine must be set in the working position (1).

The footboard of the machine (1) may be set to position (2).

Position (2) is intended for loading the machine with a crane, transport of the machine on a means of transport, towing of the machine, storing and maintenance.

The footboard is set manually.

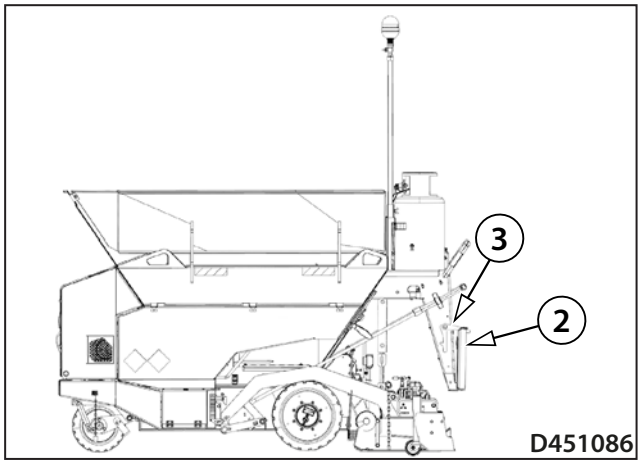


Setting the footboard to position (1):

- Hold the footboard and lift the latch (3).
- Move the footboard slowly to position (1).

Setting the footboard to position (2):

- Grab the footboard and lift it to its maximum upper position.
- Secure the footboard in the upper position the latch (3).
- Make sure it is secured properly.

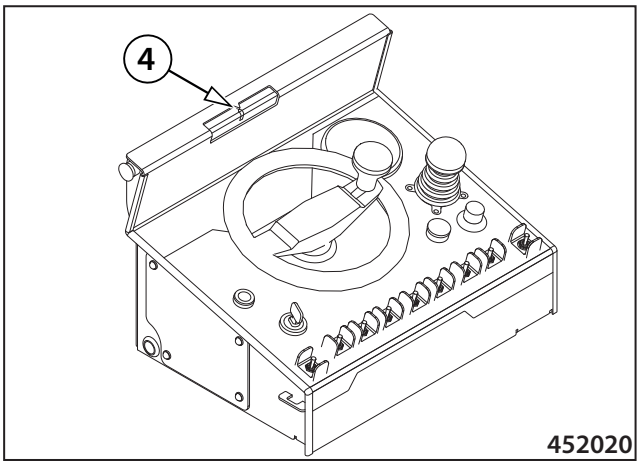


Caution! There is a risk of falling from the footboard.

Keep the platform clean without any oil stains. Danger of injury!

When loading the machine with a crane, transporting the machine on a means of transport or towing the machine, the footboard must be set in position (2).

- During the travel the front wheel turning angle indicator (4) checks the turning angle.



Start the engine only from the driver's stand! Use the alarm horn to signal the engine starting and check that nobody is endangered by starting the engine!

Caution! The machine starts moving immediately in the operating mode after the forward travel control indicator (25) lights up and the travel control (8) is moved when a speed is pre-set using the paving speed selector (14).

Jumping off the parked or moving machine is prohibited.

It is forbidden to get on or off the machine when it is moving.

During the operation of the machine always observe a safe three-point contact with the footboard and the handle.

2.6 Operation of the screed

2.6.1 Lifting and lowering the screed

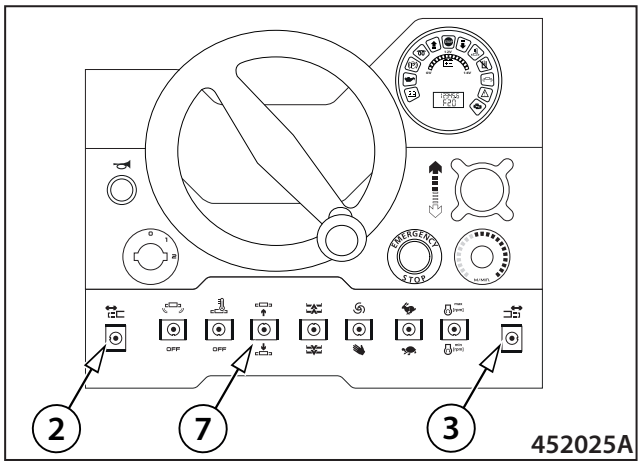
The machine is equipped with a screed linear hydraulic motor (3).

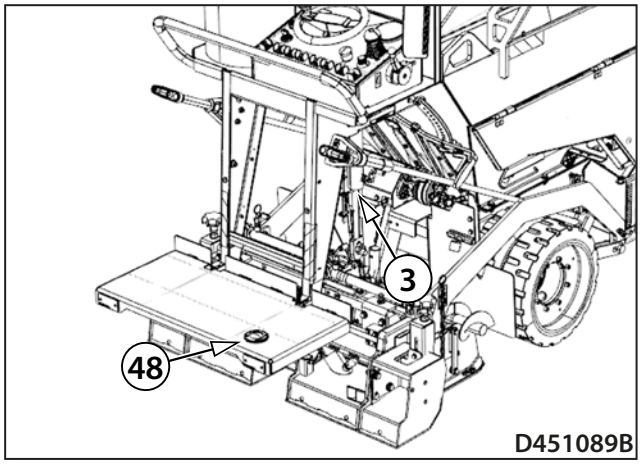
The screed linear hydraulic motor (3) is controlled by means of the screed lifting/lowering switch (7) on the main dashboard of the machine. If you need to move the screed on a stationary machine in working mode, control the linear hydraulic motor of the screed (3) by simultaneously activating the screed lifting/lowering switch (7) and pressing the foot switch (48).

The screed can be set to the upper, locked or floating position.

Lifting and lowering of the screed can be controlled in working mode.

Lifting of the screed can be controlled in transport mode.





Procedure for lifting/lowering of the screed in working mode:

- Setting the lifting and lowering of the screed in working mode is used before the start of paving or at the end of paving.
- Set the travel controller (8) to the neutral position (N).
- Set the engine speed adjusting controller (10) to the maximum speed.
- Move the transport/working mode switch (15) to the lower position.
- Press the foot switch (48).
- To lower the screed, switch over the screed lift/lower switch (7) down.
- After setting the required position, switch over the screed lift/lower switch (7) to the central position.
- To lift the screed, switch over the switch lift/lower switch (7) up.
- After reaching the required position, release the switch.
- Release the foot switch (48).

Procedure for screed lifting in transport mode:

- The setting of the lifting and lowering of the screed in transport mode is used during paving.
- Set the travel controller (8) to the neutral position (N).
- Set the maximum engine speed using the engine speed switch (10).
- Move the transport/working mode switch (15) to the upper position.
- Shift the travel controller (8) forwards.
- With the screed lifting/lowering switch (7) in the lower position, once the machine starts moving, the screed automatically moves to the floating position after a set delay (0–2 sec).

When the screed is controlled, no one is allowed in the hazardous area of the machine.

There is a risk of injury from the moving screed tow arms or the moving screed.

If the screed of the machine is not in use, during movement or transport of the machine on another vehicle, the screed tow arms must always be locked using lock pins according to Chapter 2.6.2.

Mounting the gas bottle on the machine:

Before mounting the gas bottle on the machine, check the content of the gas bottle (1) that it contains liquefied propane-butane (LPG).

If the contents of the gas bottle is incorrect or not known, never use the gas bottle (1)!

Before mounting the gas bottle on the machine also check that the gas bottle is undamaged.

Do not use the gas bottle (1) in case of any damage!

Before mounting the gas bottle on the machine, the machine must be equipped with a fire extinguisher at a designated place (35).

Procedure for mounting the gas bottle on the machine:

- Place a gas bottle (1) on the platform (4) next to the main dashboard in the vertical position, with the gas bottle shut--off valve facing up.
- Fasten the gas bottle using a fastening strap (3) to the holder (2).

The gas bottle must be placed on the machine vertically with the gas bottle stop valve facing up.

It is prohibited to place and transport the gas bottle on the machine in a different position than specified in this manual.

The maximum gas bottle volume which may be placed on the machine is 10 kg (22 lb).

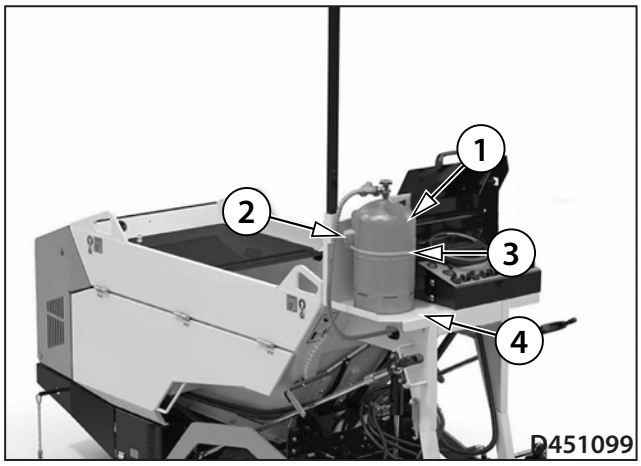
During machine operation it is prohibited to use damaged gas bottles or gas bottles with an incorrect or unknown contents.

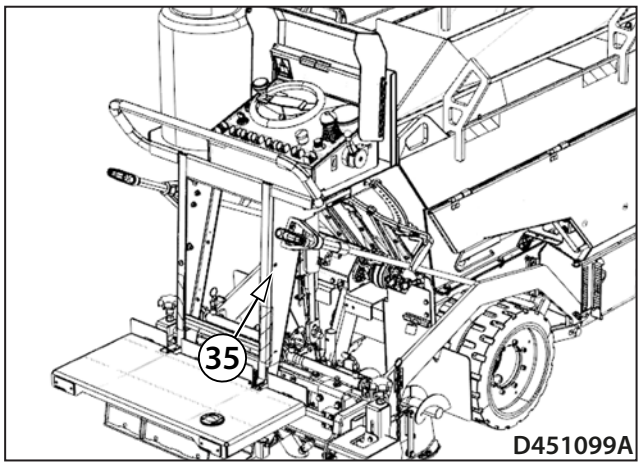
Never operate the machine unless the gas bottle is firmly fastened.

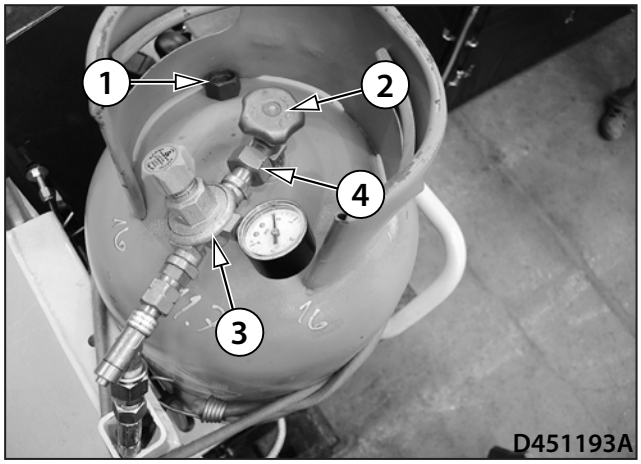
An unfastened gas bottle can fall down and the bottle or gas bottle valve may be damaged.

There is a risk of explosion.

During machine operation check that the gas bottle is correctly fastened.





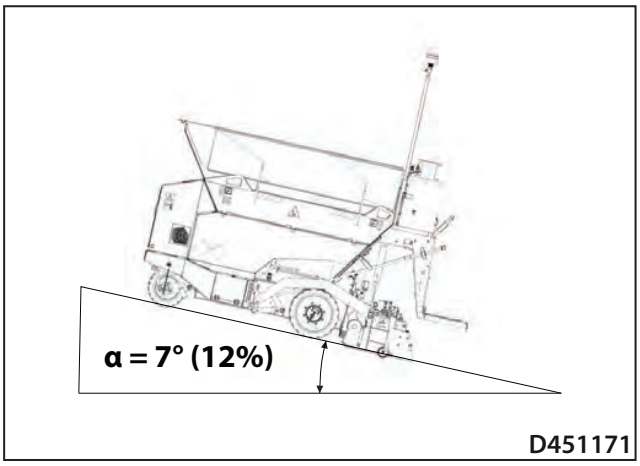


2.7.2 Loading the machine using a ramp

Use a loading ramp to load the machine onto the transport vehicle.

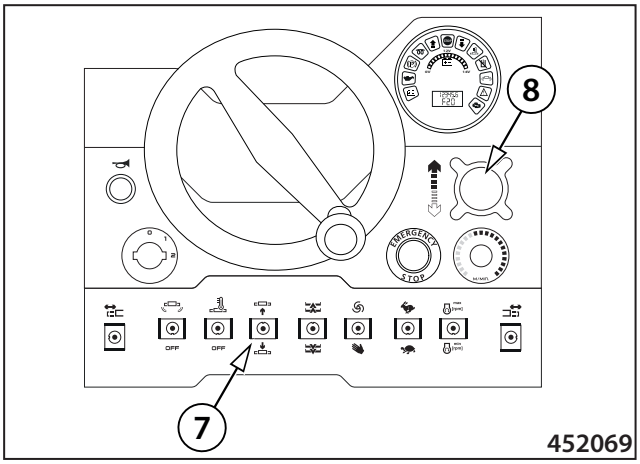
When loading the machine using a ramp, all safety regulations related to loading of the machine and complying with the national regulations in the place of loading must be adhered to. The ramp must have appropriate loading capacity, anti-slip surface and must be put on a flat surface. We recommend that you adhere to the BGR 233 regulation.

The maximum permissible value of incline of the ramp is 12 %.



Procedure for loading the machine using a ramp:

- As needed, turn on the battery disconnecter.
- Set the tilting platform to the working position.
- Get on the driver's stand.
- Start the engine.
- Deactivate the park braking system by moving the travel controller (8) from the neutral position (N).
- Drive the machine onto the transport vehicle.
- Stop the machine.
- Unlock the screed and lower the screed on the cargo bed of the vehicle using the foot switch (48) and the screed lifting/lowering switch (7).
- Activate the park braking system by moving the travel controller (8) to the neutral position (N).
- Turn off the engine.
- Leave the driver's stand.
- Set the footboard into the transportation position.
- Turn off the battery disconnecter.
- Anchor the machine and mechanically secure it with slings in tie-down holes against longitudinal and lateral displacement as well as against overturning during transport.
- Secure the machine wheels against accidental movement using wedges.



When loading the machine, another person must be present to give hand signals to the machine operator.

See the list of hand signals in chapter 2.1.9.

Pay increased attention when loading the machine. Improper handling can cause serious injury or death.

Caution! There is a risk of serious injury or death by the machine falling down when it is being loaded on the transport vehicle.

Anchor the machine and mechanically secure it with slings in tie-down holes against longitudinal and lateral displacement as well as against overturning during transport.

Secure the machine wheels against accidental movement using wedges.

A failure to observe prescribed ramp parameters with regard to the maximum permissible inclination of the machine may cause damage to the machine.

3.1.3 Environmental and hygienic principles

3.1.3.1 Hygienic principles

When operating and maintaining the machines, the user and appointed workers shall observe general principles of health protection related to these issues according to respective national regulations.

Operating fluids of the machine, battery fluids and paints including thinners are harmful to health.

Workers coming into contact with the above products during operation or maintenance of the machine are obliged to follow general principles of health protection and comply with safety and hygienic manuals by manufacturers of the products.

In particular we draw your attention to the following:

- Protect your eyes and skin while working with the batteries.
- Protect your skin when working with operating fluids and paints.

Always store operating fluids and cleaning and preservative agents in their original, properly labelled packages.

These materials are not allowed to be stored in unlabelled bottles or in any other containers considering the likelihood of confusion.

Possible confusion with foodstuffs or beverages is very dangerous.

If by accident the skin, eyes or mucous membrane is stained or if you breathe in vapours, apply immediately the principles of the first aid and immediately seek medical first aid.

During operation of the machine always use protective equipment stated in this Operating Manual.

3.1.3.2 Environmental principles

Some parts of the machine and operating fluids become hazardous wastes with dangerous properties for the environment after they are put out of operation.

This category includes in particular the following:

- organic and synthetic lubricating materials, oil or fuels,
- coolants,
- battery fluids and batteries,
- tyre fillings,
- all dismounted filters and filter elements,
- any used and discarded hydraulic and fuel hoses, rubber--metal elements and other parts of the machine contaminated with the above mentioned products.
- cleaning and preservative agents.

When operating and storing the machine, the user shall observe general principles of environmental protection related to these issues according to respective national regulations.

Contaminated parts of the machine and operating fluids must be handled according to respective national regulations after they are put out of operation.

Dynapac does not assume any liability in cases when contaminated parts and operating fluids are disposed of in an improper way, which may result in damage to the environment.

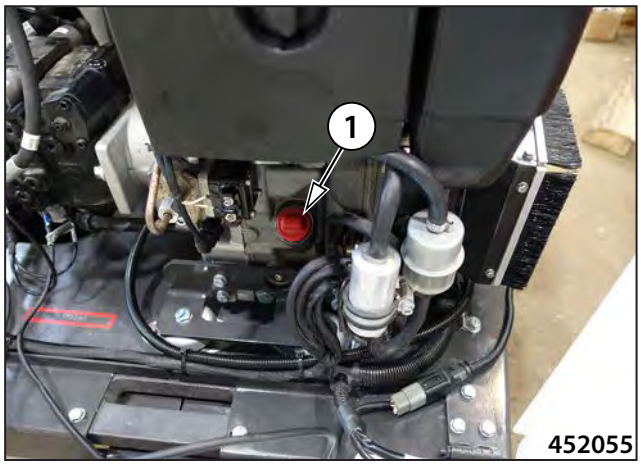
3.6.2 Engine oil check

Ensure that the machine is standing on a level and firm surface.

If the engine was running, wait for about 5 minutes until the oil runs down to the engine sump.

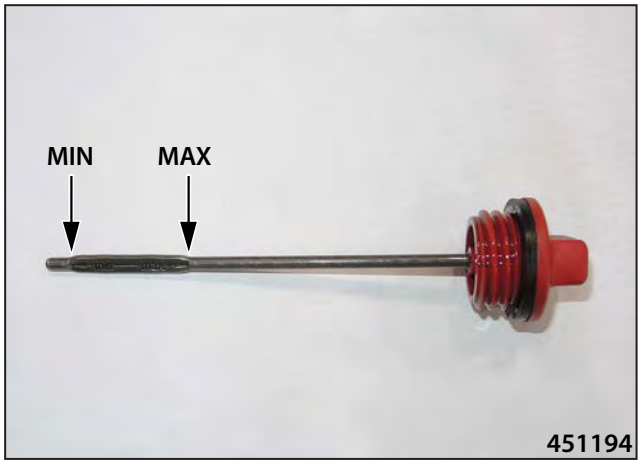
Oil check procedure:

- Pull out the oil dipstick gauge (1), wipe it.
- Put is back up to the stop, pull out again and read height of the level.
- If required, fill up the oil through the filler neck after taking pout the oil dipstick gauge (1).



Note

- The lower "MIN" mark shows the lowest possible oil level, the upper "MAX" mark the highest possible oil level.
- After refilling, wait approximately for 5 minutes before oil flows to the sump and check the level again.
- The total volume of oil in the engine is 1.8 l (0.5 US gal).



Do not use the engine if oil level in the engine is not correct.

The oil level should be maintained between the marks stamped on the oil-gauge rod.

Use the same type of oil for refilling as given in Chapter 3.2.1.

Check the engine for leakage, repair possible causes.

Check the engine for damaged and/or missing parts and for changes in appearance.

Stop the oil soaking into the ground.

3.6.9 Brake test

3.6.9.1 Check of the parking brake

This test verifies the function of the parking brake. The operator must be present at the driver's workplace – machine footboard – throughout the test. Perform the test on a slope with a gradient of 25% (14°). Stop the machine with a full hopper on a slope with the engine running.

Check that the area in front of and behind the machine is empty and that there are no persons or obstacles there! Ensure a suitable safe distance in front of the machine, behind the machine as well as on its sides.

Procedure

Fill the hopper of the paver (gravel or other loose materials, e.g. sand).

Start the engine according to Chapter 2.5.8.

Drive the machine onto a solid surface of an inclined plane (slope, ramp) with a slope of 25% (14°).

Stop the machine by changing the travel controller (8) to the neutral position "N". The parking brake indicator lamp (23) lights up.

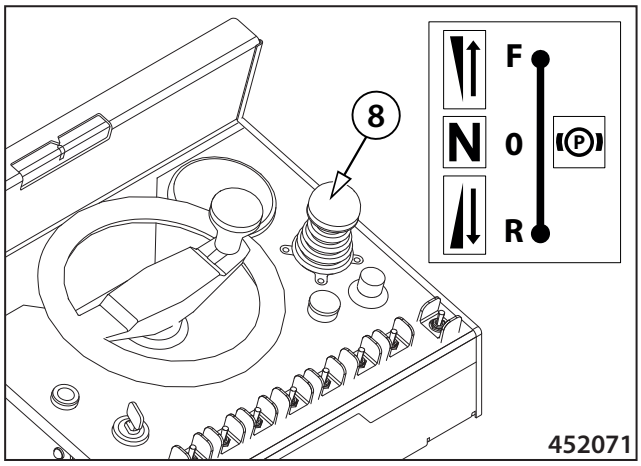
The machine must remain at standstill for ca. 5 min.

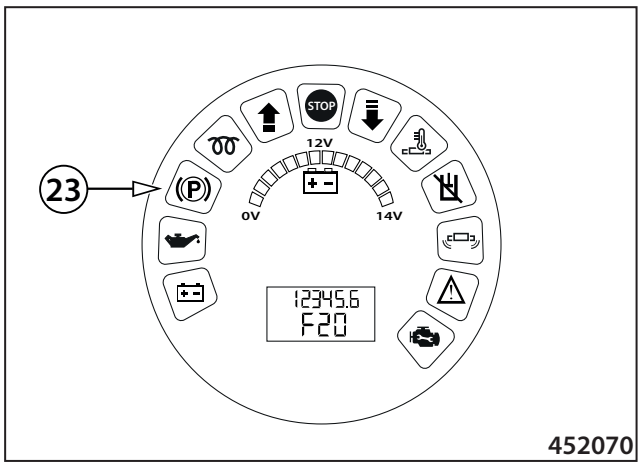
The machine must not start to move. If the machine starts to move, the test is unsuccessful – apply the operating brake to drive the machine safely downhill.

After a failed brake test, secure the machine with wedges against unintentional movement on a horizontal surface and contact the service.

Note:

Have the parking brake checked by an authorized service centre every 1000 hours of operation.





Conveyor chain and auger chain lubrication procedure:

Conveyor chain lubrication procedure:

- Apply the lubricating grease on chains (2) and (3) in point (1) with a brush.

Auger chain lubrication procedure:

- Remove the cover (4).
- Apply the lubricating grease on chains (5) with a brush.
- Mount the cover (4) back.

Chain lubrication check:

- Start the engine.
- Let the conveyor running in the manual mode.
- Stop the conveyor.
- Turn off the engine.
- Check conveyor chain and auger chain lubrication.
- If the chains are not sufficiently lubricated, repeat the procedure.

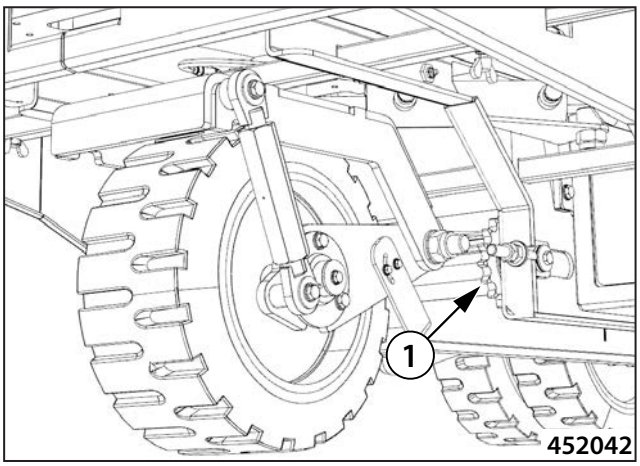
Lubricate the machine when it is parked on a flat and solid surface, the engine and the battery disconnector are off and the gas bottle is closed.

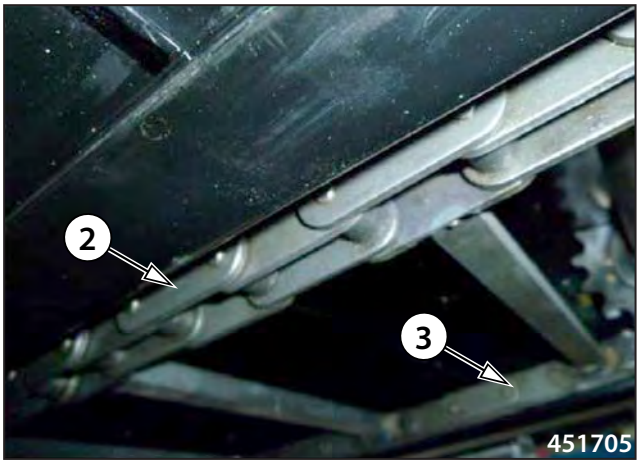
When lubricating the machine, use the prescribed protective equipment.

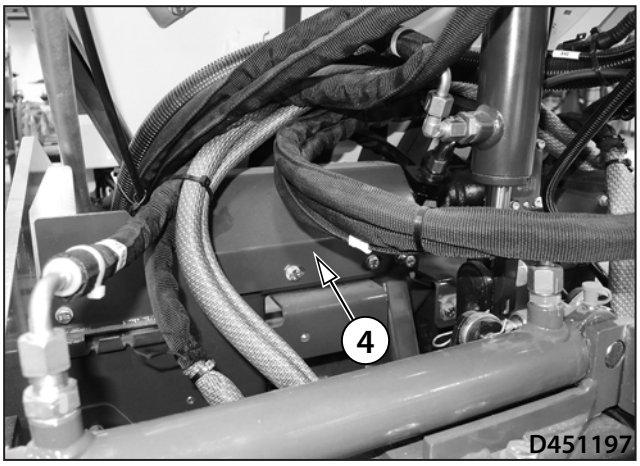
There is a risk of burns from the hot parts of the screed.

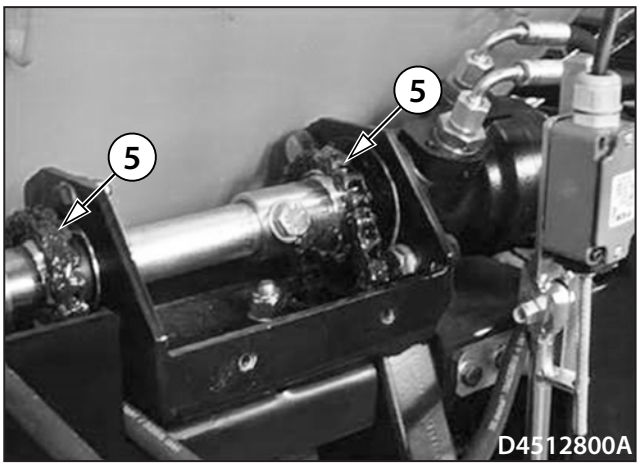
There is a risk of injury due to the fall of the screed.

There is a risk of injury due to a movement of the conveyor and augers.









3.6.24 Checking the conveyor drive chain tension

Make sure the battery disconnecter is switched off before checking the chain on the machine.

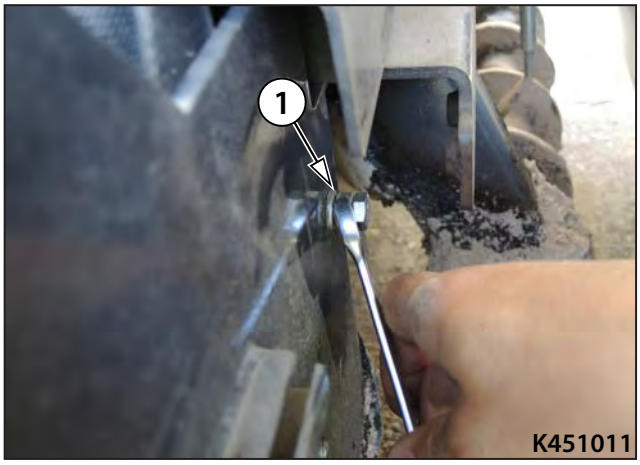
Use a suitable tool to check the chain tension.

The chain sag should correspond to approximately two grooves on the scale of the cover plate.

Tension the chain if necessary.

Chain tensioning procedure

Loosen the nut (1).



Adjust the chain tension using the screw (2).

Check the correct chain tension and tighten the nut (1).

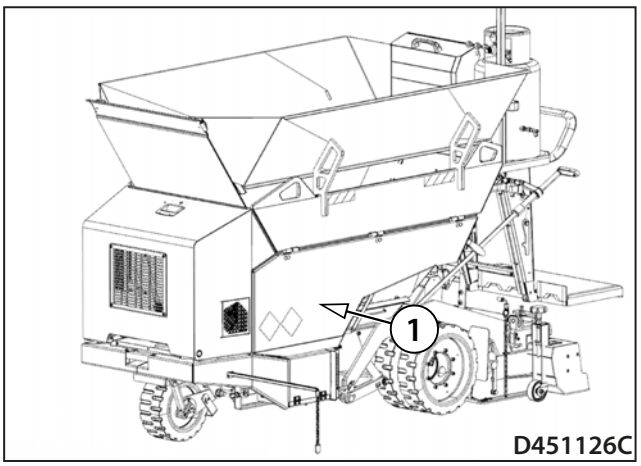
Maintenance as required

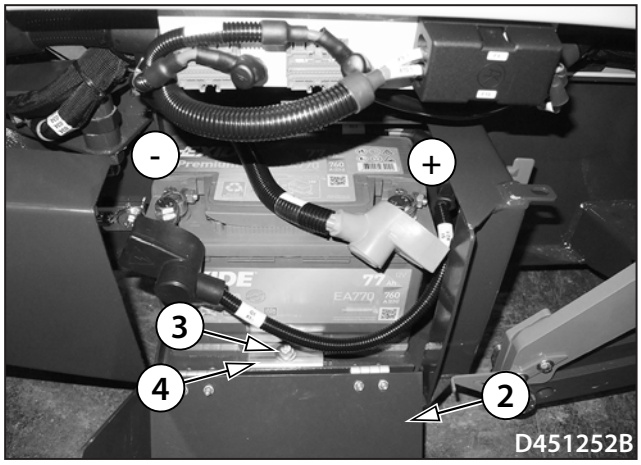
3.6.31 Battery replacement

Perform battery replacement when the machine is parked on a flat and solid surface with the engine and battery disconnecter off.

Battery replacement procedure:

- Open the left material hopper side cover (1).
- Open the battery cover (2).
- First, remove the clamp from the (-) pole on the battery, and then remove the clamp from the (+) pole.
- Remove the screw (3) of the battery holder (4).
- Remove the battery from the machine.
- Mount a new battery on the machine.
- Mount the battery holder (4) and the screw (3).
- First, mount the clamp on the (+) pole, and then mount the clamp on the (-) pole.
- Close the battery cover (2).
- Close the left material hopper side cover (1).





Replace the battery when the machine is parked on a flat and solid surface when the engine and the battery disconnector are off and the gas bottle closed.

When replacing the battery, use the prescribed protective equipment.

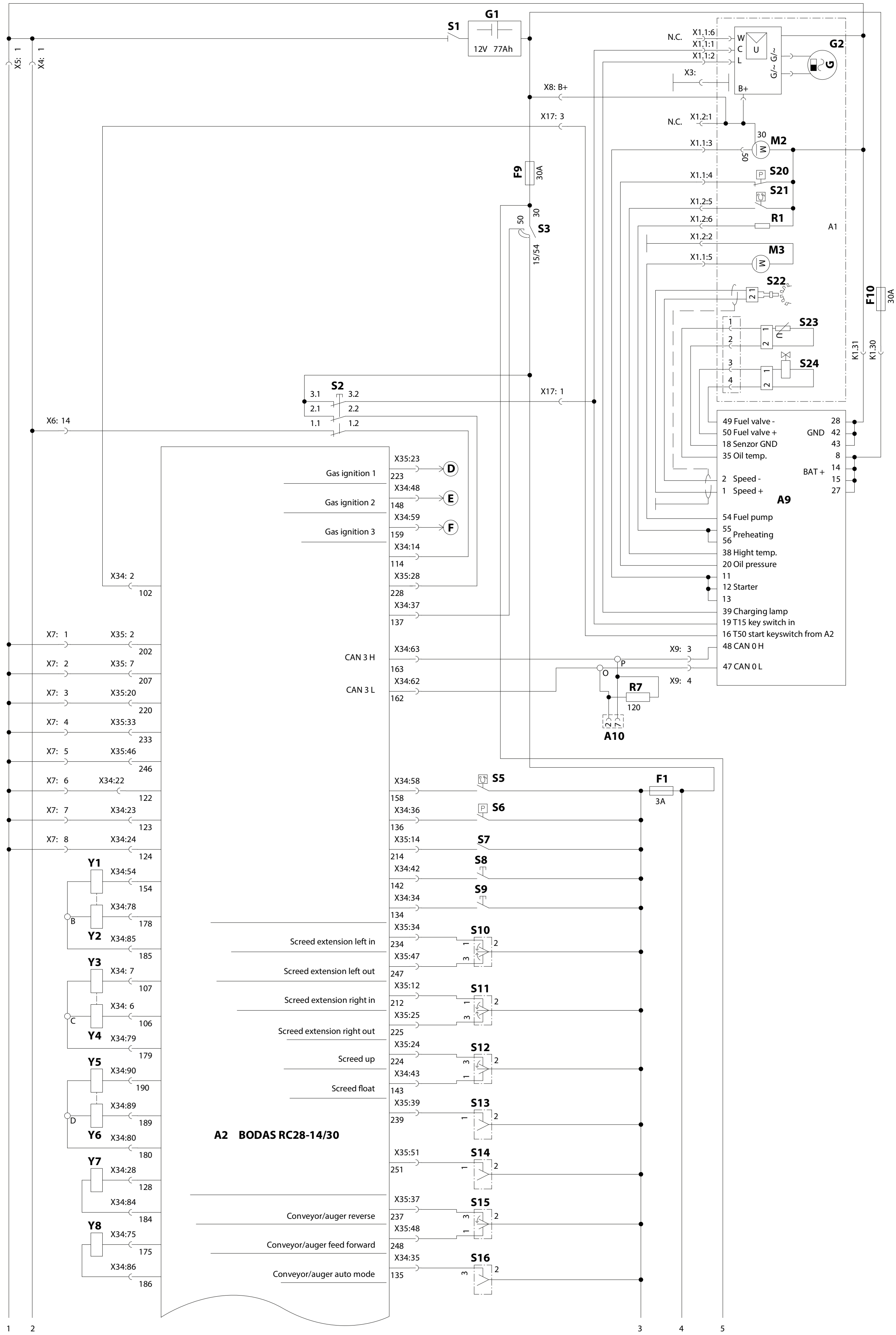
There is a risk of explosion if the battery is mounted incorrectly!

First disconnect the minus pole cable (-) when disconnecting the battery. First connect the plus pole cable (+) when connecting the battery.

Do not disconnect the battery when the engine is running.

Caution! Never make direct conductive connection between both poles of the battery to avoid a short circuit and a hazard of explosion of the battery.

Hand over the old inoperative battery for disposal according to the national regulations.



G1
S1
12V 77Ah
G2
M2
S20
S21
R1
M3
S22
S23
S24
F9
30A
S3
F10
A1
A9
49 Fuel valve -
50 Fuel valve +
18 Senzor GND
35 Oil temp.
2 Speed -
1 Speed +
54 Fuel pump
55 Preheating 56
38 Hight temp.
20 Oil pressure
12 Starter
39 Charging lamp
19 T15 key switch in
16 T50 start keyswitch from A2
48 CAN 0 H
47 CAN 0 L
GND
BAT +
S2
R7
120
A10
F1
3A
Gas ignition 1
Gas ignition 2
Gas ignition 3
CAN 3 H
CAN 3 L
S5
S6
S7
S8
S9
S10
S11
S12
S13
S14
S15
S16
Y1
Y2
Y3
Y4
Y5
Y6
Y7
Y8
Screed extension left in
Screed extension left out
Screed extension right in
Screed extension right out
Screed up
Screed float
A2 BODAS RC28-14/30
Conveyor/auger reverse
Conveyor/auger feed forward
Conveyor/auger auto mode

40419B_1en