OPERATING MANUAL

Asphalt paver wheeled

F80W

Hatz

EN 4812217933

DYNAPAC
FAYAT GROUP

Operating fluids		
Fuel	l (gal US)	5 (1.3)
Engine (oil filling)	l (gal US)	1.8 (0.5)
Hydraulic system	l (gal US)	20 (5.3)
Lubricants	kg (lb)	0.1 (0.22)
Gas bottle with the maximum volume	kg (lb)	10 (22)
Maximum operating pressure	bar	1
Recommended operating pressure	bar	0.6–0.8
Gas type	-	Propane-butane (LPG)
Hopper		
Hopper capacity	kg (lb) / m^3	1,600 (3,527) / 0.6
Filling area length	mm (in)	1,100 (43.3)
Paving		
Paving capacity	kg/h (lb/h)	22,000 (48,500)
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)	1,300 (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)	1,150 (45.3)
Maximum paving width with mechanical extension	mm (in)	1,650 (65)
Electrical installation		
Voltage	V	12
Battery capacity	Ah	55
Noise and vibration emissions		
Measured sound power level A, L_{pA} at the operator's position (platform)*	dB	81
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)	<2.5

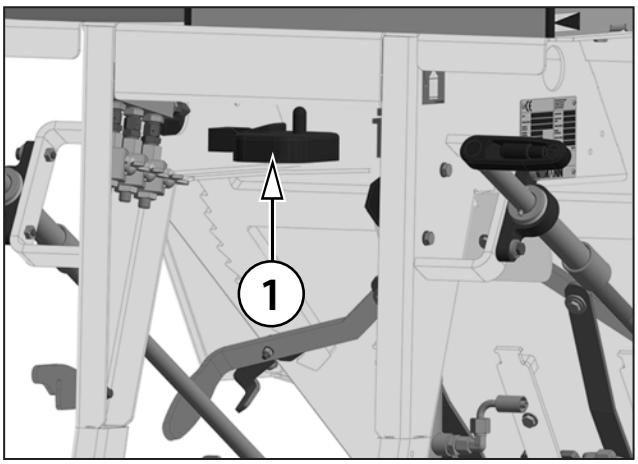
* measured according to EN 500-4

** measured according to DIRECTIVE 2000/14/EC

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

1.4.7 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.

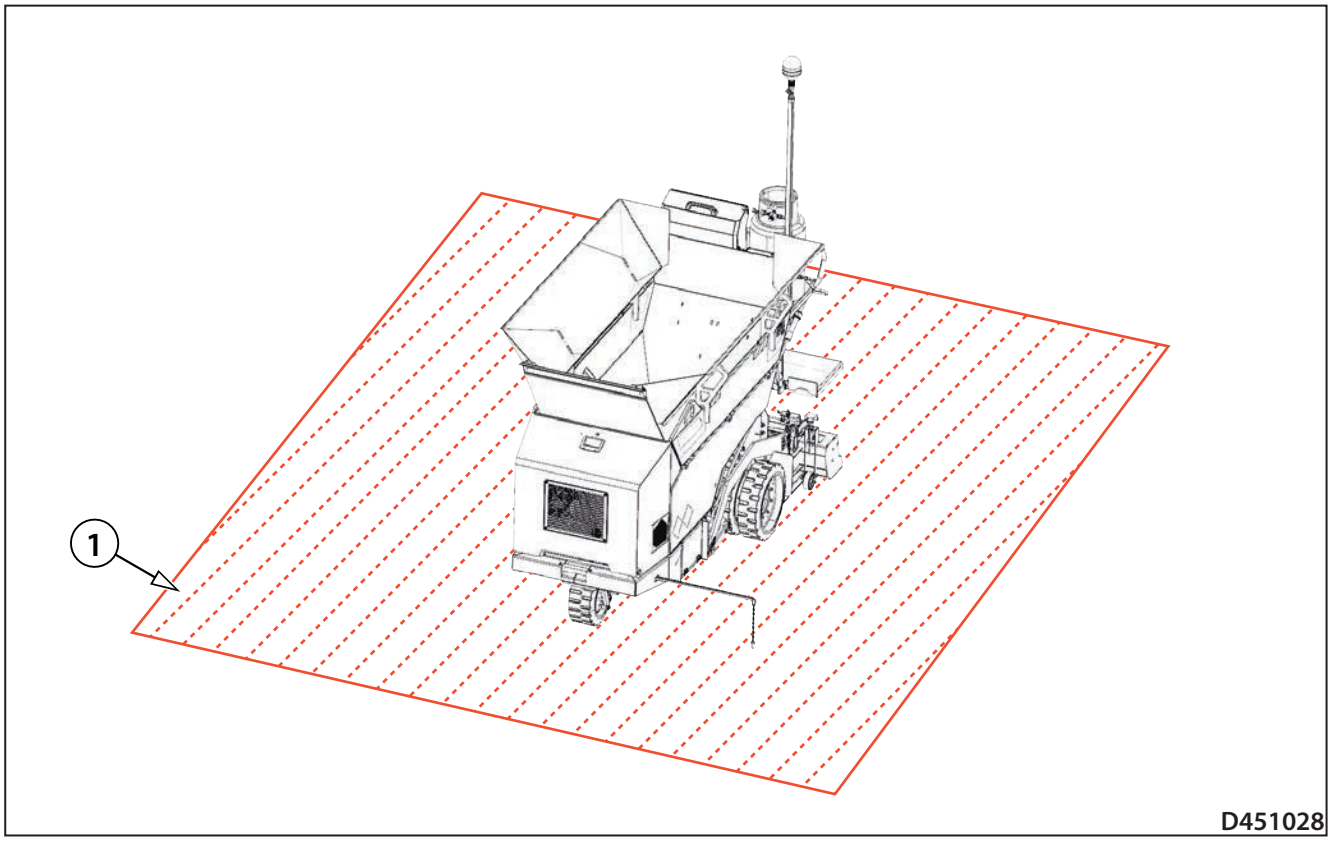
Operating the additional lighting:

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.

2.1.11 Personal protective equipment

The machine operator, technical administrators, service technicians and workers present at the workplace must use personal protective equipment during operation and maintenance of the machine:

1.	 0001	Wear work clothes (antistatic protective clothes).
2.	 0008	Wear work shoes (antistatic protective shoes).
3.	 0030	Wear a warning vest.
4.	 0007	Use a protective helmet.
5.	 0002	Use hearing protection.
6.	 0004	Use a dust protection mask (with a filter against organic gases and vapours, type A, AX).
7.	 0005	Use safety glasses or a safety shield.
8.	 0003	Use protective gloves (suitable for low temperatures).

2.2.4 Removing chemical preservatives and putting the machine into operation

Each of the machines, on which the preservative treatment was carried out, must be provided with instructions for removing the preservatives.

Instructions for removing the preservatives must specify procedures to remove the preservatives and procedures to reinstall the dismantled parts of the machine. Besides, a list of tools, instruments and devices must be specified, which are required for performing the working procedures.

Always follow the working instructions for removing the chemical preservatives and procedures for reinstalling the dismantled machine parts. Observe safety precautions stated in the instructions for removing the chemical preservatives.

After the preservation and storage of the machine for more than 2 months, carry out the following tasks:

- unlock the machine hopper,
- unlock the protective covers of the individual instruments and covers of the machine,
- adjust the roof of the machine to the highest working position,
- if the machine is equipped with a gas bottle, mount the gas bottle on the machine.

Then it is recommended to perform the following tasks:

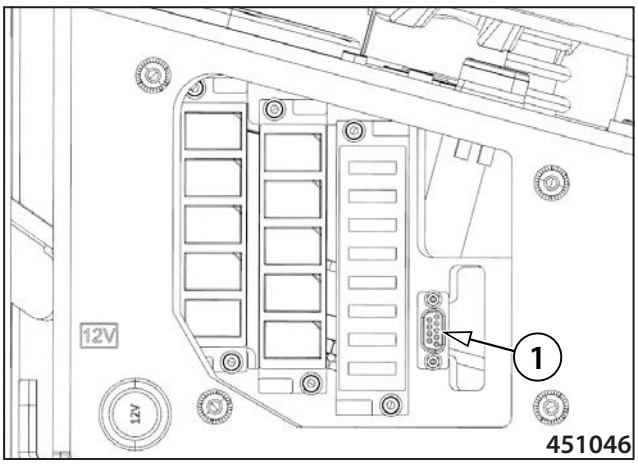
- service lubrication points according to instructions stated in the manual,
- check the tyres for pressure if the machine is equipped with wheels,
- check that the coolant has the desired antifreeze properties,
- mount the batteries on the machine; recharge them according to instructions of the manufacturer,
- clean the chromium-plated surface of piston rods from chemical preservatives,
- remove protective components of the hole seals, through which atmospheric precipitations can penetrate in internal cavities of parts of the individual components of the machine,
- remove protective components from headlamps and exterior mirrors of the machine,
- check parts of the electrical installation,
- remove chemical preservatives and protective elements of the engine according to instructions of the manufacturer of the engine.
- Remove all the chemical preservatives from the machine by washing.

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

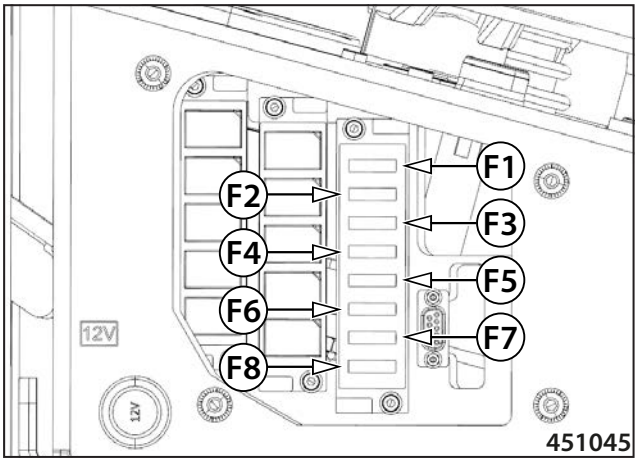
After the preservation and storage of the machine for a time interval longer than 2 months, before the machine is put into operation, it is necessary to replace all filter and air elements according to instructions stated in this Operating Manual.

Fuse box (20)

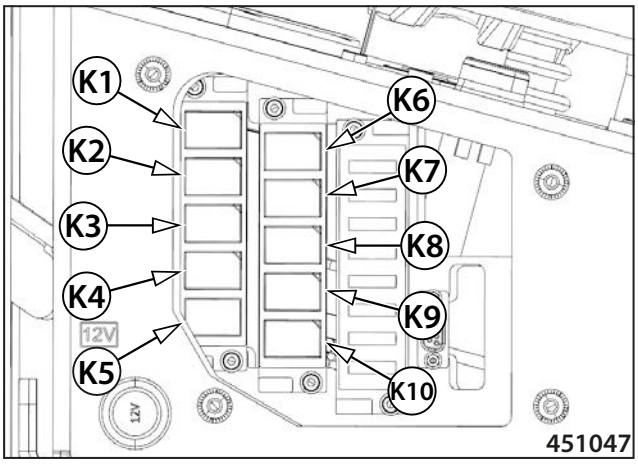
1 ..... Diagnostics connector



F1	Fuse at the input of the power supply of the control unit..... (3 A)
F2	Fuse at the output of the power supply of the control unit ..... (25 A)
F3	Oil cooler fan fuse ..... (15 A)
F4	Horn and reverse travel with horn fuse ..... (5 A)
F5	Fuse of beacon and auger area lighting..... (7.5 A)
F6	Screed heating fuse..... (5 A)
F7	Universal display fuse ..... (2 A)
F8	Fuse of the power supply of the electronics of the control unit ..... (5 A)

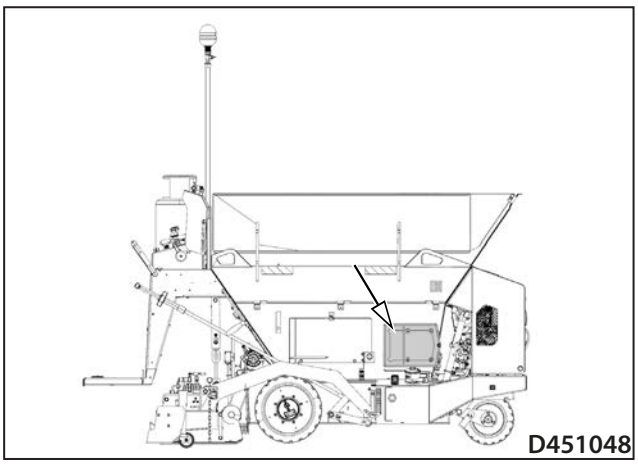


K1	Engine starting relay
K2	Oil cooler relay
K3	Horn relay
K4	Relay of the warning acoustic signal of the reverse run
K5	Warning beacon relay;
K6	Screed heating relay
K7	Not used
K8	Not used
K9	Not used
K10	Screed heating relay



2.5.4 Deposition boxes and safety covers on the machine

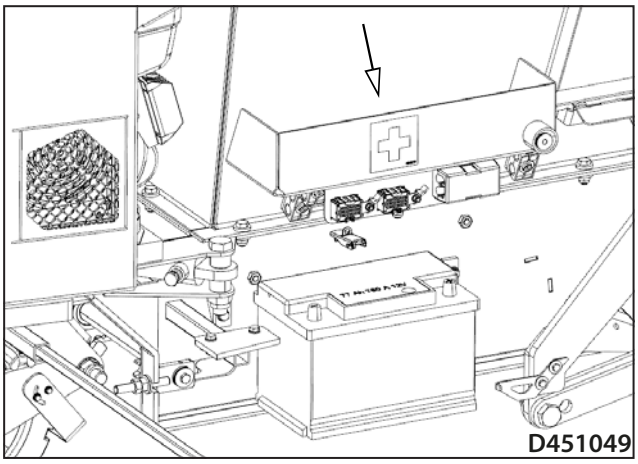
A deposition box situated on the right side under the cover serves for storing the Operating Manual and other documents related to the operation of the machine.



The Operating Manual must always be kept in the machine in an appropriate place to be always available for the driver of the machine for viewing.

Place to deposit the first-aid kit

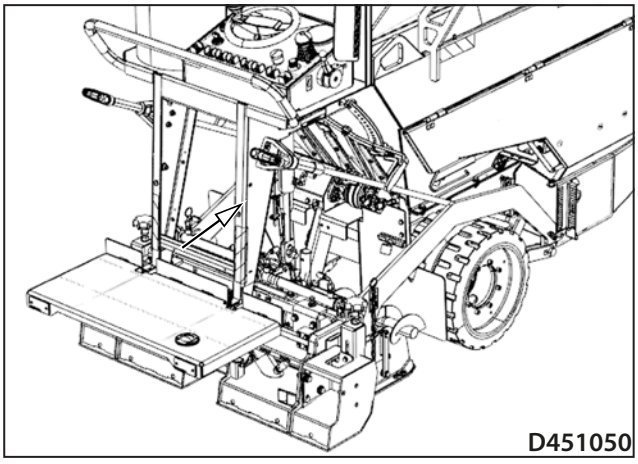
The deposition box on the right side under the cover serves for depositing the first-aid kit.



The machine must be equipped with the first-aid kit.

Place to install a fire extinguisher

A fire extinguisher is not in the standard equipment of the machine. The machine user shall ensure that a fire extinguisher is mounted to the designated place on the machine. A fire extinguisher must be regularly inspected according to Chapter 2.1.15.

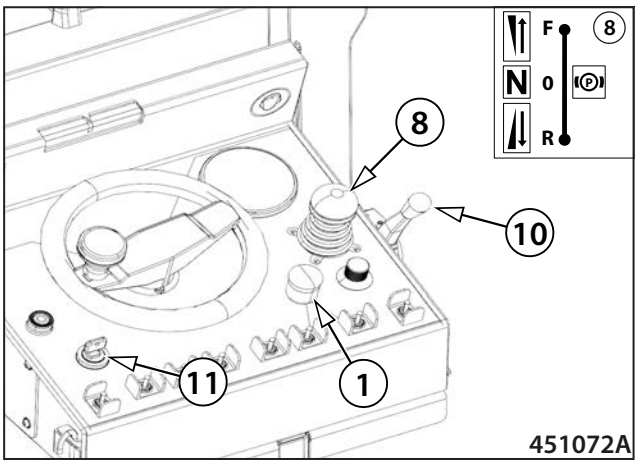


The machine must be equipped with a fire extinguisher.

2.5.11 Stopping the machine and engine

Stopping the machine:

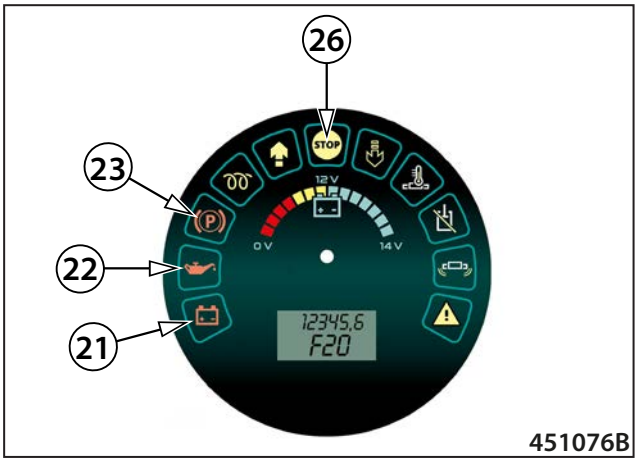
- Stop and brake the machine by changing the travel controller (8) to the neutral position (N). The parking brake indicator lamp (23) lights up.
- Set the engine speed adjusting controller (10) to the idle speed.
- Switch over the key in the ignition box (11) to the position "0".
- Remove the key from the ignition box (11) and disconnect the battery disconnecter.



Machine emergency stop

Activation:

- Press the emergency brake button (1).
- The machine brakes, the engine stops, material distribution on the conveyor stops, and vibration units and the screed gas heating stops.
- The battery charging indicator lamp (21), engine lubrication indicator lamp (22) and emergency brake indicator lamp (26) will light up on the display.



Deactivation:

- Pull out the emergency brake button (1). Shift the travel controller (8) to the neutral position (N); the machine can be started again in this position.

Use only if a failure occurs when it is impossible to stop the engine with the key in the ignition box or if serious emergency occurs when it is impossible to stop the machine by moving the travel control (8) to the neutral position (N)!

Turn off the battery disconnecter when shutting down the machine.

When the machine is put out of operation, protect the dashboard and the engine compartment from unauthorized access of others by locking the dashboard cover and the engine bonnet.

2.6.2 Screed lock

The screed is locked to prevent a spontaneous fall of the screed due to possible leaks in the hydraulic system.

Lock the screed with the machine parked and started, the travel controller (8) must be set in the neutral position (N).

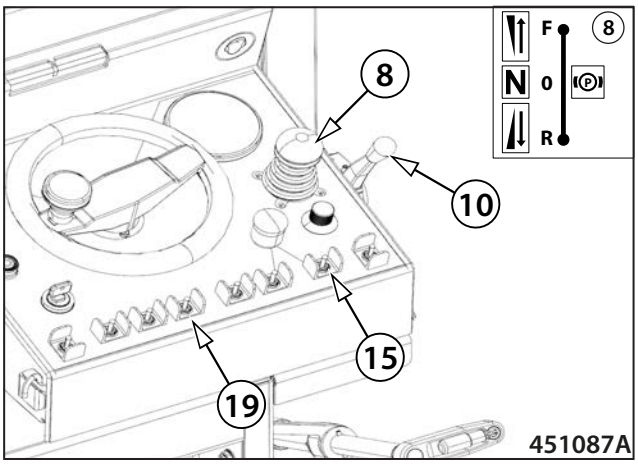
If the screed of the machine is not in use, during movement or transport of the machine on another vehicle, the screed tow arms must always be locked using lock pins.

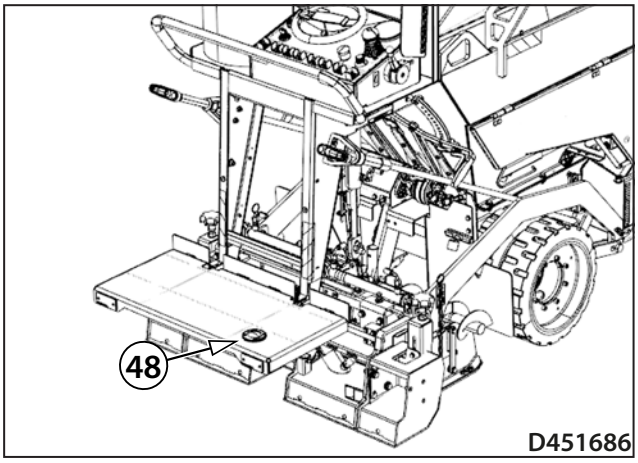
Procedure for locking the screed:

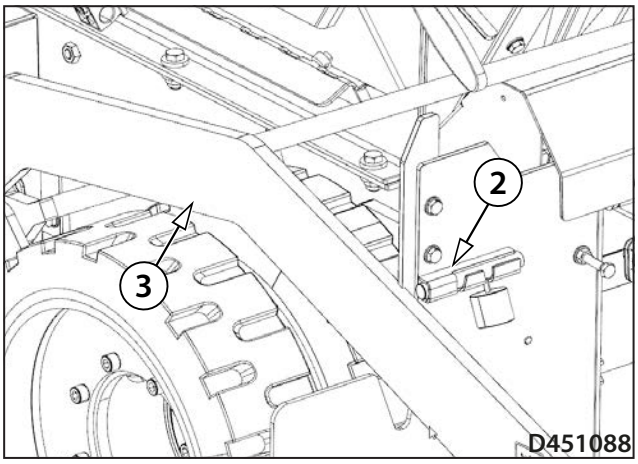
- Set the travel controller (8) to the neutral position (N).
- Check that both screed lock pins (2) are inserted.
- Set the engine speed adjusting controller (10) to the maximum speed.
- Switch over the transport/operating mode switch (15) to the upper position.
- Press the foot switch (48).
- To lift the screed, switch over the switch lift/lower switch (19) up, and after reaching the maximum screed position release the switch.
- Release the foot switch (48).
- Extend both the screed lock pins (2).
- Press the foot switch (48).
- Lower the screed until the screed tow arms (3) lie on the lock pins (2).
- After the contact of the screed tow arms (3) with the lock pins (2), switch over the screed lift/lower switch (19) to the central position.

Procedure for unlocking the screed:

- Set the travel controller (8) to the neutral position (N).
- Set the engine speed adjusting controller (10) to the maximum speed.
- Switch over the transport/operating mode switch (15) to the upper position.
- Press the foot switch (48).
- To lift the screed, switch over the switch lift/lower switch (19) up, and after reaching the maximum screed position release the switch.
- Release the foot switch (48).
- Retract both the screed lock pins (2).
- Set the screed to the required position.







Due to leaks in the hydraulic system, the screed may gradually lower if the screed tow arms are not locked.

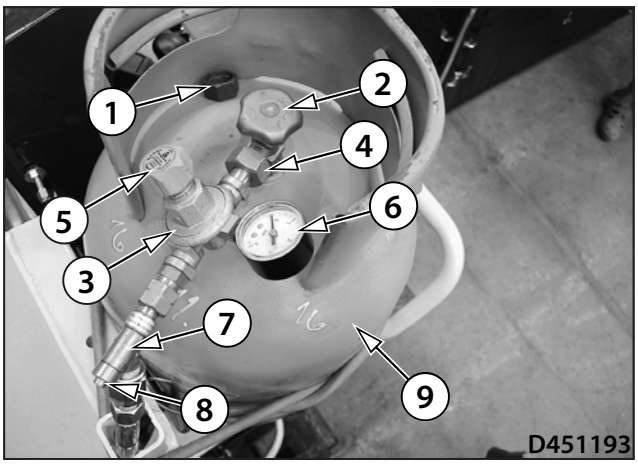
In case of failure of the hydraulic system, the screed may fall spontaneously if the screed tow arms are not locked.

In the event of failure of the hydraulic system, there is a risk of injury from the falling 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.

Procedure for opening the gas bottle:

- Slowly open the gas bottle (9) shut-off valve (2).
- Check the response of the safety valve (7).
- If the safety valve (7) clicks (stops the gas supply), immediately close the shut-off valve (2) of the gas bottle (9) and proceed according to instructions in Chapter 3.7.3.
- Apply the procedure for resetting the safety valve function.
- Do not apply the procedure for resetting the safety valve function more than twice. If the failure is not removed, close the valve (2) of the gas bottle (9) and call an authorised service for repair.



Do not reset the safety valve more than twice.

Unless the failure is removed, call an authorised service.

Procedure for resetting the safety valve function:

This procedure only serves for resetting the safety valve in case that the safety valve is activated.

- Press the button for resetting the safety valve (8) and hold it pressed for 20 s.
- Gas pressure builds up and the safety valve (7) remains opened.
- Release the safety valve reset button (8).
- Unless the safety valve function is deactivated, close the shut-off valve (2) of the gas bottle (9) and call an authorised service to troubleshoot the failure.

Do not reset the safety valve more than twice.

Unless the failure is removed, call an authorised service.

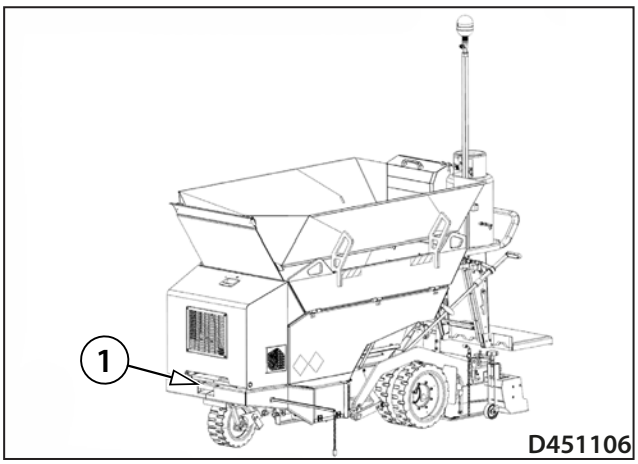
2.8 Special conditions to use the machine

2.8.1 Towing the machine

The machine is not fitted with any system that would manually release the parking brake. If the pressure in the brake system is too low, the rear wheels will remain blocked.

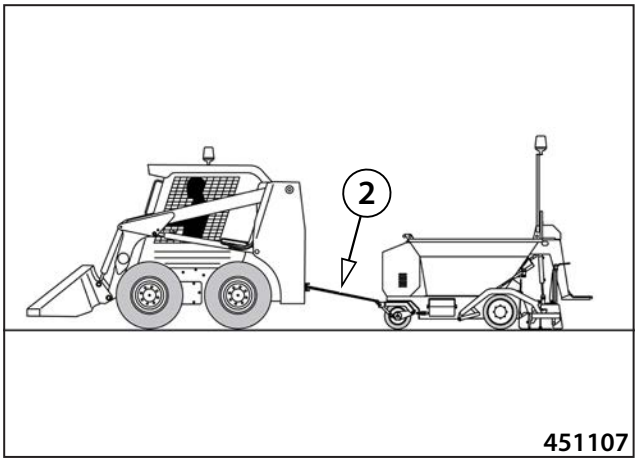
We recommend towing the machine only for short distances or to avoid towing completely, if possible.

- Depending on the possibilities, have the machine repaired or maintenance performed on location.
- If possible, use a crane to lift the machine and transport it for maintenance and repairs.



Procedure to tow the machine:

- The towing movement when towing the machine must be smooth. Do not exceed the towing speed by more than 1 km/hour (0.6 mph).
- The towed machine must be attached to the towing lug (1).
- Make sure there are no persons in the dangerous area of the machine.
- Move away from the danger zone of the machine.
- Have the machine towed in compliance with the instructions of the machine owner.



Risk of injury when towing the machine.

For towing, use undamaged tow ropes or tow bars of a sufficient capacity 1.5 × higher than the weight of the towed vehicle. Do not use a chain for the towing.

Ensure that there are no persons in the dangerous area when the machine is towed.

Move away from the danger zone of the machine. The safe distance is at least 5 metres.

The machine may only be towed attached to the towing lug (1), by means of a tow bar (2) or tow rope (2).

No persons are allowed on the machine when the machine is towed!

There is a risk of damage to the machine when the machine is towed.

The rear wheels are blocked and will skid over the surface. The front wheel can turn, but cannot be controlled.

Tow the machine very slowly and smoothly.

Tow the machine only using vehicles with a sufficient tow force considering the weight of the towed machine.

3.2.3 Hydraulic oil

For the hydraulic system of the machine, it is necessary to use only high-quality hydraulic oil grades according to ISO 6743/HV (equal to DIN 51524 part 3 HVLP).

Fill the Machines normally with hydraulic oil that has cinematic viscosity of 46 mm^2/s at 40°C (104°F) ISO VG 46. This oil is the most suitable for use in the widest range of ambient temperatures.

Synthetic hydraulic oil

The hydraulic system can be filled with synthetic oil, which if leakages occur will be degraded completely by micro-organisms present in water and soil.

Always consult with the oil manufacturer or dealer any switching from mineral oil to synthetic or mixing oils of various brands!

3.2.4 Anti-adherent solution

The anti-adhesive liquid is a non-adhesive additive.

It serves for cleaning the hopper, conveyor, augers and parts of the machine which are in contact with the paved asphalt material.

Use an environmentally-friendly anti-adherent solution according to the applicable national regulations.

To create the anti-adherent solution, mix a non-sticking agent with water according to the instructions of the non-sticking agent manufacturer.

Dosage

The anti-adherent solution dosage may vary depending on the operating conditions:

For standard mixtures, 1 part of anti-adherent solution in 30 parts of water. (1:30)

For modified mixtures, 1 part of anti adherent solution in 5 parts of water. (1:5)

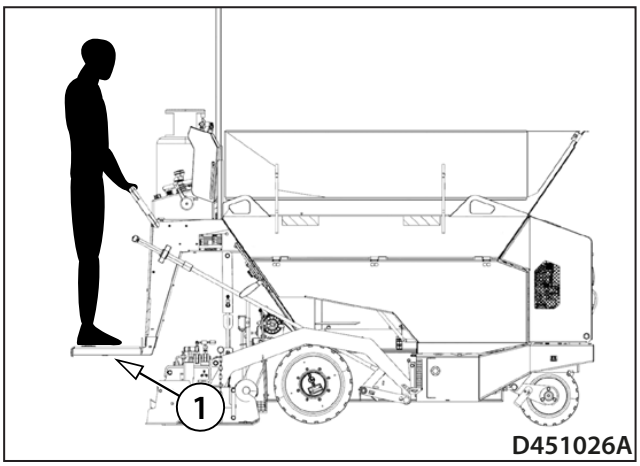
Note

There is no vessel for an anti-adherent solution on the machine.

To apply the anti-adherent solution on individual parts of the machine, use a hand pump for spraying liquids.

It is prohibited to use diesel oil instead of an anti-adherent solution.

3.6.4 Driver's stand cleaning



Clean the driver's stand always on the machine which is parked on a flat and solid surface, with the machine engine and battery disconnecter off.

Keep the driver's stand continuously clean, dry and without snow and ice during the winter.

Cleaning procedure:

- Make sure there are no objects deposited on the driver's stand (1).
- Remove potential residues of materials from the driver's stand (1) using a scraper.

Caution! There is a risk of injury during cleaning.

Remove dirt from the driver's stand only with the engine and battery disconnecter off.

Use the prescribed protective equipment during cleaning.

During machine operation no objects may be located on the driver's stand.

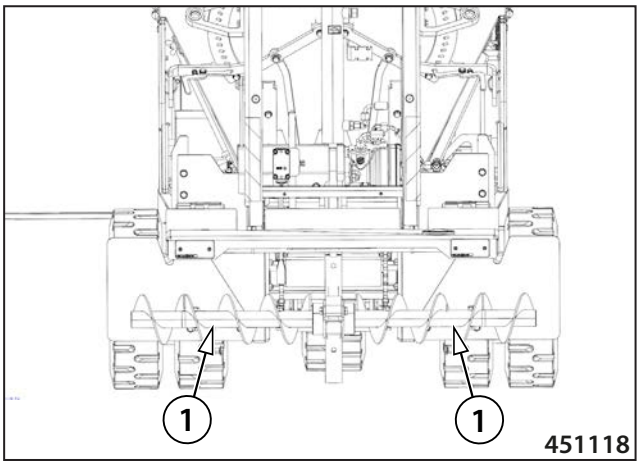
3.6.11 Auger cleaning

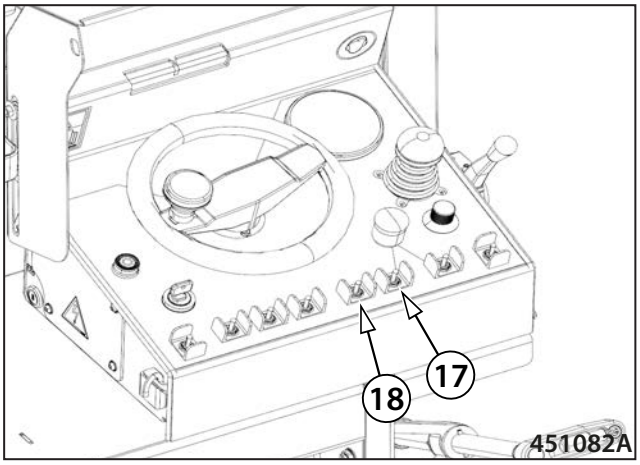
Before applying the anti-adherent solution remove gross dirt from the augers.

Clean the driver's stand always on the machine which is parked on a flat and solid surface, with the machine engine and battery disconnecter off.

Cleaning procedure:

- Make sure the screed heating system is turned off.
- Apply the anti-adherent solution on augers (1).
- Use a scraper to remove material residues from the augers (1) on both sides of the machine.
- Start the engine.
- Activate the function of auger start by shifting the operating mode switch (17) to the lower position and the switch (18) on the main dashboard to remove the dirt from the augers.
- After removing dirt from the augers disable the switch (18) and the operating mode switch (17) functions.
- Turn off the engine and disconnect the battery disconnecter.
- Apply the anti-adherent solution on augers (1).





Caution! There is a risk of injury during cleaning.

Caution! There is a risk of burns.

Remove dirt from the augers using a scraper only with the engine and battery disconnecter off.

Use the prescribed protective equipment during cleaning.

Use the prescribed anti-adherent solution according to Chapter 3.2.4.

It is prohibited to use diesel oil instead of an anti-adherent solution.

3.6.19 Engine accelerator cable tension check

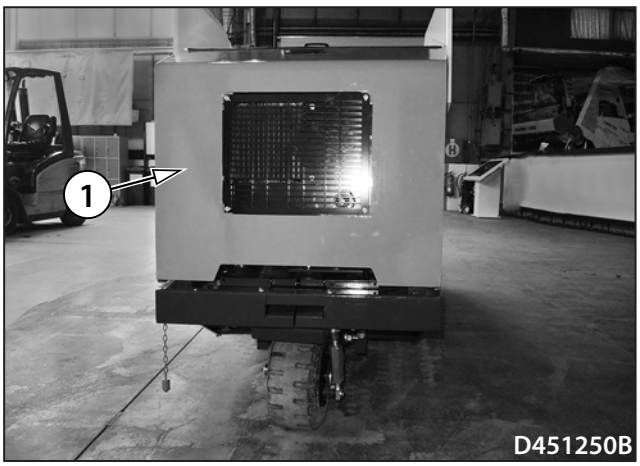
Check the engine accelerator cable tension always on the machine which is parked on a flat and solid surface, with the machine engine and battery disconnecter off.

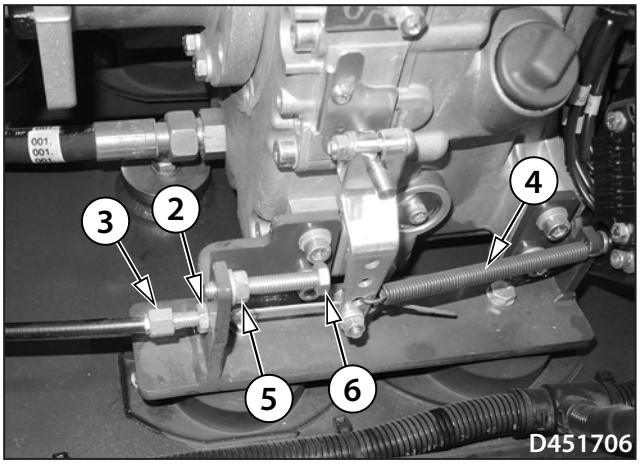
Check the correct engine accelerator cable tension; if the cable is loosened, the engine speed can be set in an uncontrolled manner.

If you find out that the cable is loosened, tension it.

Engine accelerator cable tension check procedure:

- Open the engine bonnet (1).
- Loosen the lock nut (2).
- Unscrew the set screw (3) to the required position so that the cable is tensioned.
- Tighten the lock nut (2).
- At the same time, check the correct function of the spring (4).
- At the same time, check tightening of the lock nut (5) of the set screw (6) which regulates the maximum engine speed.
- Close the engine bonnet (1).





Perform engine accelerator cable tension check when the machine is parked on a flat and solid surface with the engine and battery disconnecter off.

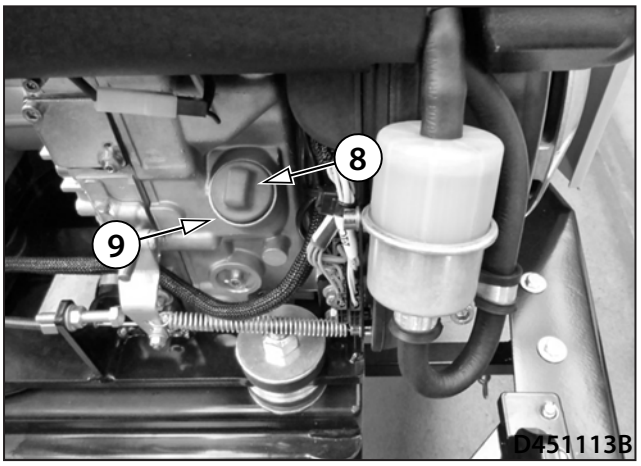
Wear the prescribed personal protective equipment when checking the engine accelerator cable tension.

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

Check the correct engine accelerator cable tension; if the cable is loosened, the engine speed can be set in an uncontrolled manner.

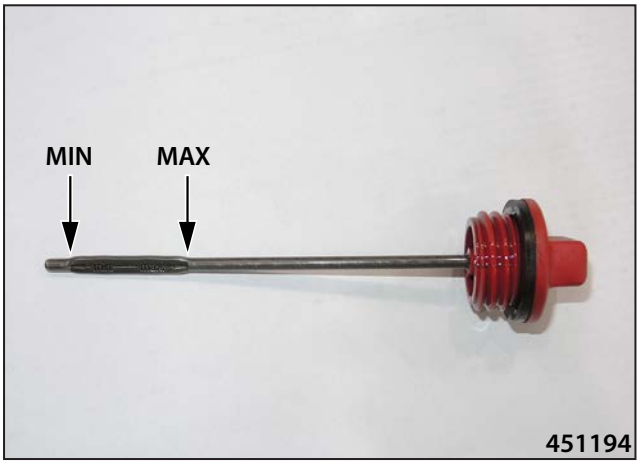
Procedure for oil volume check in the engine:

- Start the engine.
- Leave the engine to idle for at least for 5 minutes.
- Turn off the engine.
- Wait approximately for 5 minutes before oil flows to the sump and check the level again.
- Pull out the oil dipstick gauge (8), 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 (9) after taking pout the oil dipstick gauge (8).



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.



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

When cleaning the engine oil filter, wear the prescribed protective equipment.

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

There is a risk of eye injury when cleaning the engine oil filter with compressed air.

Do not use the engine unless the oil level in the engine is 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

Stop the oil soaking into the ground.

3.7.6 List of error codes displayed on the display

Code F	Short description	Causes and troubleshooting
F01	hydraulic oil sensor	short circuit to the ground detected – check the connection (X41, RD 141, WH 227)
F02	material feed sensor	short circuit to the ground detected – check the connection (X43, RD 143, WH 229)
F03	F03 brake pressure sensor	short circuit to the ground detected – check the connection (X42, RD 142, WH 228)
F04	engine cooling sensor	“short circuit on the battery detected – check the connection (X18:5, X35)”
F05	engine oil level sensor	“short circuit on the battery detected – check the connection (X17:4)”
F06	engine air filter sensor	“short circuit on the battery detected – check the connection (X18:3)”
F07	drive pump sensor	"short circuit to the ground or on the battery detected or no connection – check the connection (X38, WH 214, WH 217, WH 222)"
F11	controller	“the most frequent cause: the controller is not calibrated; - parameter error 1 through 6: redundancy fault; - parameter error 7: not calibrated; - parameter error 8: error in the main channel; - parameter error 9: error in the redundant channel (X36)”
F12	speed potentiometer	“the most frequent cause: an error in the main channel; - parameter error 1 through 6: redundancy fault; - parameter error 8: error in the main channel; - parameter error 9: error in the redundant channel (X37)”
F13	travel mode switch	short circuit to the ground detected – check the connection (X53, RD 153, WH 243)
F14	material feed mode switch	short circuit to the ground detected – check the connection (X52, RD 152, WH 242)
F15	material feed direction switch	short circuit to the ground detected – check the connection (X51, RD 151, WH 240, WH 241)
F16	screed height switch	short circuit to the ground detected – check the connection (X48, RD 148, WH 236, WH 237)
F19	screed vibration switch	short circuit to the ground detected – check the connection (X49, RD 149, WH 238)
F21	horn button	short circuit to the ground detected – check the connection (X45, RD 145, WH 231)
F22	engine start switch	short circuit to the ground detected – check the connection (137)
F23	safety button	short circuit to the ground detected – check the connection (X44, RD 144, WH 230)
F24	screed extension switch – left, inside	short circuit to the ground detected – check the connection (X46, RD 146, WH 233)
F25	screed extension switch – left, outside	short circuit to the ground detected – check the connection (X46, RD 146, WH 232)
F26	screed extension switch – right, inside	short circuit to the ground detected – check the connection (X47, RD 147, WH 234)
F27	screed extension switch – right, outside	short circuit to the ground detected – check the connection (X47, RD 147, WH 235)
F28	forward control switch	short circuit to the ground detected – check the connection (X36)
F29	rearward control switch	short circuit to the ground detected – check the connection (X36)
F30	control neutral position switch	short circuit to the ground detected – check the connection (X36)
F31	travel pump – forward	"short circuit to the ground or on the battery detected or no connection – check the connection and the coil (X65, Y12, WH 263, WH 265, WH 266)"
F32	travel pump - rearward	"short circuit to the ground or on the battery detected or no connection – check the connection and the coil (X66, Y13, WH 264, WH 266)"
F33	drive pump safety	"short circuit to the ground or on the battery detected or no connection – check the connection and the coil (X65, X66, Y12, Y13, WH 263, WH 264, WH 265, WH 266)"
F34	brake release output	"short circuit to the ground or on the battery detected or no connection – check the connection and the coil (X60, Y7, WH 256, WH 257)"
F35	brake release safety	"short circuit to the ground or on the battery detected or no connection – check the connection and the coil (X60, Y7, WH 256, WH 257)"
F36	material feed forward valve	"short circuit to the ground or on the battery detected or no connection – check the connection and the coil (X54, Y1, WH 244, WH 246, WH 247)"
F37	material feed rearward valve	"short circuit to the ground or on the battery detected or no connection – check the connection and the coil (X55, Y2, WH 245, WH 247)"
F38	material feed safety	"short circuit to the ground or on the battery detected or no connection – check the connection and the coil (X54, X55, Y1, Y2, WH 244, WH 245, WH 246, WH 247)"