

CALIFORNIA

**Proposition 65 Warning**

**WARNING:** Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

**WARNING:** Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.  
**Wash hands after handling.**

# ***MF 7600 - Maintenance***

**MF 7619**  
**MF 7620**  
**MF 7622**  
**MF 7624**



**Dyna-6**

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: [www.heydownloads.com](http://www.heydownloads.com) by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

## 1.1 Introduction

1

### 1.1.1 Introduction - Safety instructions

T000967

#### Operator's Manual

**NOTE:** This Operator's Manual is widely published and distributed and the availability of the attachments indicated, whether fitted to the basic tractor or as an accessory, may vary depending on the country or region in which the tractor is used. To find out which attachments are available in a given region, contact a Massey Ferguson dealer.

The purpose of this manual is to enable the owner and the operator to operate the tractor appropriately under normal conditions of use. Providing they follow the instructions carefully, the tractor will give many years of service in the Massey Ferguson tradition.

Use for any other activity (particularly forestry work) is considered to be contrary to the intended use.

The commissioning of equipment by the Massey Ferguson dealer on the user's premises enables the dealer to ensure that these operating and service instructions are properly understood. Always consult the Massey Ferguson dealer if there is any part of this manual that you do not understand. It is important that these instructions are understood and followed.

This manual does not cover all operation and safety instructions relevant to the implements and accessories that may be fitted at the time of tractor delivery or later. It is essential that operators use and understand the Operator's Manuals relating to these implements and accessories.

**IMPORTANT:** This manual must always be kept with the tractor. For extra copies, contact your Massey Ferguson dealer.

This chapter in the Operator's Manual highlights certain basic safety-related situations that may be encountered during normal operation and servicing of the tractor and provides the information needed to handle these situations.

This chapter supplements any safety instructions given in other chapters of this manual.

It may be necessary to take additional precautions, depending on the implements and accessories used and the working conditions on-site or in the service area. Massey Ferguson can under no circumstances exercise direct control over the commissioning, operation, inspection, lubrication, or servicing of the tractor. It is therefore YOUR responsibility to take suitable safety precautions in such areas.



#### **WARNING:**

**It is your responsibility to read and understand the instructions that appear in this chapter before using the tractor. They must then be strictly adhered to throughout the working day.**

#### Servicing, spare parts, accessories and conditions of use

Daily services should become a routine, and a logbook of operating hours should be kept.

When spare parts are required, it is important to use only genuine Massey Ferguson parts. Massey Ferguson dealers supply genuine parts and can offer advice concerning their fitting and use. The use of lower quality parts may cause serious damage. Customers are advised to purchase their spare parts only from an approved Massey Ferguson dealer. In the same way, you must only use accessories specifically adapted to your tractor.

Owing to the considerable variation in operating conditions, it is not possible for the manufacturer to formulate complete or absolute assertions in its publications concerning the performance or operating methods of its machines or to accept liability for any loss or damage which may result from such assertions or possible errors or omissions.


If the tractor is to be used in abnormal conditions which could cause damage (use in deep water or in paddy fields for instance), you should consult your Massey Ferguson dealer to obtain special instructions to prevent the warranty from becoming void.

These tractors are designed only for usual farming activities (intended use). Use for any other activity (particularly forestry work) is considered to be contrary to the intended use.

Strict compliance with the repairs, service and operating conditions as specified by Massey Ferguson is also an essential component of the intended use.

**IMPORTANT:** Massey Ferguson accepts no responsibility in the event of damage to equipment or personal injury resulting from improper use.

The tractor must only be used, serviced and repaired by personnel who have full knowledge of its specific features and who are aware of the applicable safety measures (prevention of accidents).

-  **WARNING:**  
***In poor conditions, slow down and be extra careful, and engage 4-wheel drive if fitted.***

It is important to have good knowledge of the operation of the tractor as well as all of its accessories and attached implements.

Remember that rain, snow, ice, loose gravel or soft ground can change the performance of the tractor.

### 1.4.3 Filling the fuel tank

T001555

- Always switch off the engine before filling up.
- Do not smoke while refueling the tractor. Keep away from open flames [fig. 2](#).
- Proceed with care to prevent any splashes.



Fig. 2.

1025721

### Filling with DEF

Avoid all contact with the eyes, skin and clothing.

- Proceed with care to prevent any splashes.
- If swallowed. If large quantities of this product are swallowed, seek medical advice immediately. Do NOT induce vomiting unless indicated to do so by medical staff. Do not administer liquid to a person who is unconscious.
- In case of contact with skin, rinse with plenty of water and remove contaminated clothing.
- In case of contact with the eyes, rinse immediately under running water. In the event of irritation, seek medical advice.
- If fumes are inhaled, breathe in fresh air and seek medical advice, if necessary.
- Prevent DEF from coming into contact with other chemical products.
- Urea spillages must not be discharged into the drains.



Fig. 3.

1025722

### 1.7.2 Protection of persons other than the operator

T000976


-  **WARNING:**  
**A tractor is a machine with a single operator.**  
**Do not permit anyone [fig. 1](#) to ride on the tractor or implements, including trailers, unless the implements are specially designed to carry passengers during field work. In the latter case, transport is permitted only for field work, but not for travelling on the road.**  
**In all cases, never allow a child to ride on the tractor or implements.**



Fig. 1.

1002865

- When operating, always pay attention to the environment of the tractor/implement assembly.
- Never lift loads above someone.
- Do not allow anyone to stand or pass in front of, under or behind an implement [fig. 2](#).



Fig. 2.

1034928

- Do not allow anyone to stand between the tractor and the implement.
- Keep others away from the working area.
- Beware of the load and implement falling in the event of unexpected lowering of the loader.

### 1.7.3 Overturning

T000977

#### Overturning angle

-  **DANGER:**  
**For your safety, never exceed the maximum angle limits listed in the table below.**

**NOTE:** These angle limits assume a maximum oil level in the rear axle.  
 It is recommended to top up the oil by 15 l (4.0 gal (US)) when working on slopes of maximum gradient.

Models	Speed	Maximum angle: roll/pitch/combined
Dyna-6	> 15 kph < 15 kph	15°/15° 22°/22°

- Positioning axle stands for support at the rear of the tractor:
  - (6) and (7) Under the rear axle beams

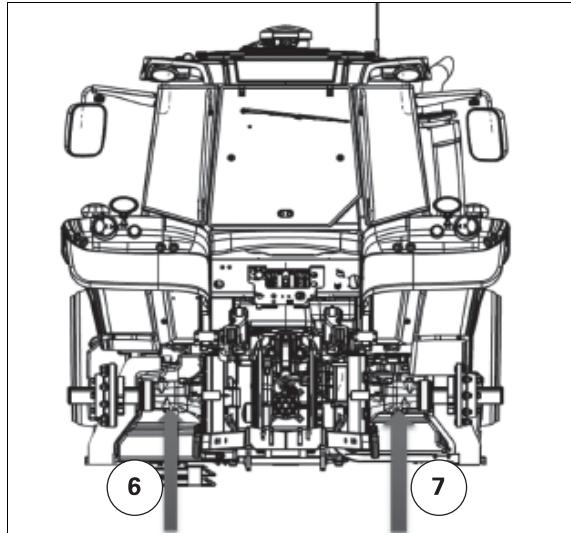
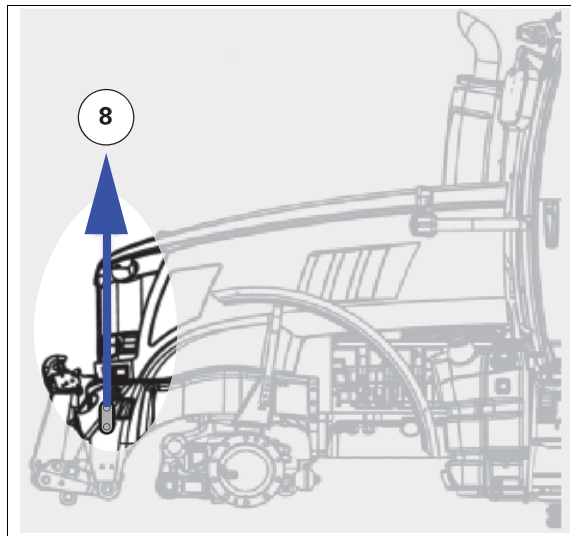


Fig. 3.

I035285

- Front sling points:
  - (8) On the side fixing holes of the front linkage
  - (9) On the weight support hole



I035287

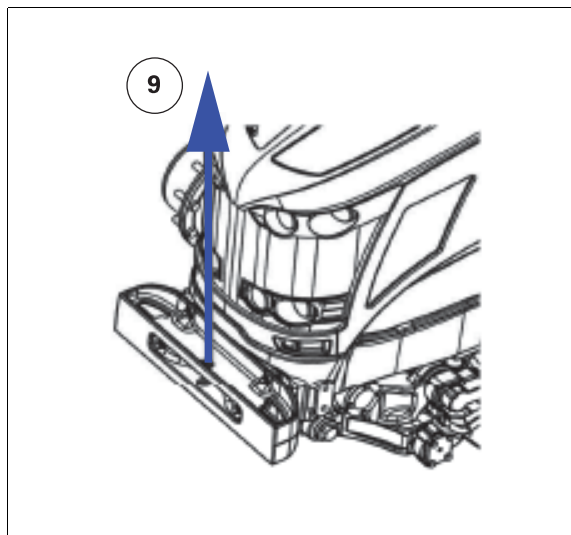


Fig. 4.

I035288

### 1.8.4 Special instructions for cleaning the tractor

T000888

- Before cleaning the tractor, always:

### Owner's Maintenance and Repair Responsibility

The engine owner is responsible for the proper use and maintenance of the engine, as specified in the Operator's Manual. AGCO reserves the right to deny coverage under this warranty if the owner has not properly maintained the engine and/or emission related parts and failure occurs due to neglect, abuse, and/or unapproved modifications.

AGCO is not responsible for resultant damage to an emission-related part or component resulting from:

- Any application or installation AGCO deems improper
- Attachments, accessory items or parts not sold nor approved by AGCO
- Improper engine maintenance, repair or abuse
- Owner's unreasonable delay in making the product available after being notified of a potential product problem

AGCO shall be liable for damages to other engine components proximately caused by a failure under warranty of any warranted part.

This warranty is in addition to AGCO Standard Warranty.

AGCO recommends that the original owner keep the original purchase receipt (with the date of initial purchase), and all repair receipts and maintenance records, and transfer them to any subsequent owner.

However, AGCO will not deny warranty claims solely for the lack of receipts or failure to document the performance of all scheduled maintenance. The engine owner is responsible for presenting the engine to the nearest Dealer or service station authorised by AGCO when a problem exists.

Subject to the limitations above, non-warranty maintenance or repair of emission control parts on this engine may be performed by the owner, or by any repair establishment or individual, without affecting coverage under this warranty; however, reimbursable warranty repairs must be performed by a dealer or service centre authorised by AGCO or the manufacturer of this equipment.

The use of parts that are not equivalent in performance and durability to genuine parts may impair the effectiveness of the emission control system and prevent coverage under this warranty. If non-genuine AGCO parts are used for maintenance or replacement on this engine, you should assure yourself that such parts are warranted by their manufacturer to be equivalent to genuine parts in performance and durability.

### EMISSION WARRANTY EXCLUSIONS

This warranty shall not cover any of the following:

- Conditions resulting from tampering, misuse, abuse, improper adjustment, engine alteration, use of modified parts, use of replacement parts that are not the same in performance and durability as genuine replacement parts, failure to use the recommended fuel or oil, use of unapproved fuel or oil additives, or failure to perform required maintenance
- Consequential damages such as loss of time, inconvenience, or loss of use of this engine or equipment
- Damages or repair costs caused by the owner's unreasonable delay in making the engine available for warranty inspection and repair
- Repairs not covered by this warranty, and diagnosis or inspection fees that do not result in eligible warranty service being performed
- Any replacement with non-genuine parts or malfunction of genuine parts due to use of non-approved parts. The use of any non-exempted add-on or modified parts shall be grounds for disallowing a warranty claim.
- Travel Time and Mileage \*
- Freight \*

**NOTE:** \* Unless mandated by State or Provincial laws.

### OBTAINING WARRANTY SERVICE

All repairs qualifying under this limited warranty must be performed by a Dealer or service centre authorised by AGCO or the manufacturer of this equipment.

To obtain warranty service, owner should take the engine to the nearest Dealer or service center authorized by AGCO or the equipment manufacturer. If available, the original purchase receipt (showing the initial date of purchase) and all available maintenance records should be presented.

The authorized AGCO dealer will contact AGCO Warranty Department for confirmation of coverage.

The authorized Dealer or service center may perform the necessary repairs or adjustments within a reasonable time and furnish owner with a copy of the repair order. AGCO wants to assist in providing the services applicable under this warranty. If you need assistance in locating the nearest authorised Dealer or service centre, or have any questions about this warranty, you may contact an AGCO Warranty representative at:

## 2.3 Engine

### 2.3.1 Recommended products

T001199

**IMPORTANT:** The warranty remains valid only as long as the lubricants used comply with the following classifications, and no other products are used.

#### Oil characteristics

Engine oil	Type of oil	Temperature range
All year round	15W40	-10 °C (14 °F) and above
Winter conditions	10W30	-30 °C (-22 °F) to 20 °C (68 °F)
Extreme cold weather conditions	5W30	20 °C (68 °F) and below

	Volume/reference available from parts department				
Volume	0,94 l (0.2 gal (US))	9,45 l (2.5 gal (US))	18,9 l (5.0 gal (US))	113,4 l (30.0 gal (US))	207,9 l (54.9 gal (US))
AGCO 5W30	7901 5705	7901 5703	N/A	N/A	N/A
AGCO 10W30	7901 4694	7901 4695	7901 4696	7901 4697	7901 4698
AGCO 15W30	7901 4678	7901 4680	7901 4681	7901 4682	7901 4683
AGCO 821XL	7901 4711	7901 4712	7901 4713	7901 4714	7901 4715

#### Coolant

Antifreeze: Permanent, ethylene/glycol, complying with standard specifications ATSM D3306 (USA) or BS 6580-1992 (Europe/UK) or AS 2108-1977 (Australia) for SISU engines.

### 2.3.2 Fuel

T001051

#### Reminder of the safety instructions

Before handling fuel, filling the tank, etc., observe the following:

- Under no circumstances should gasoline, alcohol, paraffin, dieselhol (a mixture of diesel and alcohol), or any other substance be added to diesel fuel as there is an increased risk of fire or explosion. In a closed container such as a fuel tank, these mixtures are more explosive than pure gasoline. Do not use them. Additionally, dieselhol is not approved due to possible inadequate lubrication of the fuel injection system.
- Clean the filler plug area. Fill the fuel tank at the end of each working day to reduce overnight condensation.
- Never remove the plug or refuel when the engine is running.
- When filling the tank, keep control of the nozzle.
- Do not smoke.
- Do not fill the tank to its full capacity. Allow room for expansion and wipe up spilt fuel immediately.
- If the original plug is lost, replace it with an AGCO plug and tighten securely. A non-AGCO plug may not be guaranteed to seal.
- Ensure that the equipment is properly maintained.



#### **CAUTION:**

**Diesel fuel is flammable. Handle fuel with care. Keep away from flammable sources. Do not smoke when filling the tank. Do not leave the tractor unattended when filling the tank. Clean up any spilt diesel after filling the tank. Any material which comes into contact with the fuel must be moved to a safe place.**

**If high-pressure fuel comes into contact with eyes, wash immediately with clean water and seek medical help.**

#### Compulsory fuel for e3 SCR Technology engines

The diesel used must comply with standard EN 590:2009 or ASTM D 975-09b 1-D or 2-D.



Fig. 10.

I004091

1. Lift the hood panel.
2. Remove the main filter ((2)). To access the filter, unlock and remove the cover plate ((1)).
3. Clean the main filter, depending on its condition:
  - Gently tap the filter on a hard surface to knock out as much dust as possible, then blow through the top of the filter with compressed air at a maximum pressure of 5 bar (73 psi) while keeping the filter at a suitable distance away from the nozzle (0.50 m (2 ft) minimum).
  - After cleaning, check to ensure that the secondary filter (3) is not damaged by illuminating the inside to check that there are no holes, and check the condition of the seals.
4. Carry out the same operations in reverse order to reassemble.

### Cleaning and replacement of the secondary filter: Procedure

**IMPORTANT:** Stop the engine before starting work on the filter system.

**NOTE:** Although the model shown may not fully correspond to your model, the procedure is identical.

**CAUTION:**  
**Do not use tractor exhaust fumes to blow the main filter or secondary filter out. Never put oil in the main filter or secondary filter. Never use petrol, paraffin, or solvents to clean the main filter or secondary filter.**  
**Before installing the main or secondary filter, visually check that there are no cuts, tears, or damage on the surface of the seals; do not install the filter if such damage is visible.**

1. Lift the hood panel.
2. **IMPORTANT:** To clean the secondary filter, do not tap it against a hard surface.  
 Remove the main filter (2) and the secondary filter (3). To access the filters, unlock and remove the cover plate (1) *fig. 10*.
3. Carry out the same operations in reverse order to reassemble.

## 2.3.17 Cooling system

T001428

### Coolant quality

- The coolant quality can have a great effect on the efficiency and life of the cooling system (*see §2.3.1, page 61*).

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: [www.heydownloads.com](http://www.heydownloads.com) by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

## 2.5 Brakes

### 2.5.1 Recommended products

T010423

**IMPORTANT:** The warranty remains valid only as long as the products used comply with the following classifications and no other products are used.

#### Pneumatic brake

For the winter period, use "Wabcothyl" anti-freeze

2

### 2.5.2 Checking the regulator filter

T015008

#### Frequency

Check the regulator filter every 500 hours.

Replace the regulator filter if necessary, (for example, if it is heavily blocked).

#### Procedure

1. Remove the screw (2) from the filter access
2. Extract the filter (1) and clean it. Blow through with compressed air before refitting the assembly

**NOTE:** Bleed the hydraulic system after carrying out any maintenance on the brake system, [see §2.5.3, page 81](#)

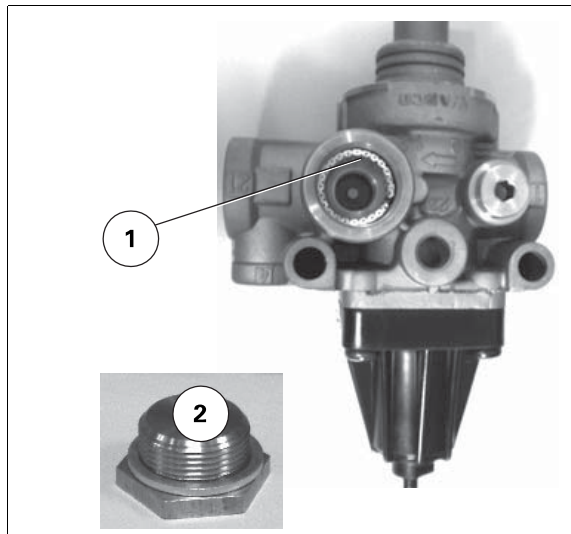


Fig. 1.

I033636

### 2.5.3 Bleeding the brake system

T001058

#### Frequency

Bleed the brake/piston system every 2000 hours and after every service operation.

## 2.9 Linkage

### 2.9.1 Recommended products

T001454

**IMPORTANT:** The warranty remains valid only as long as the lubricants used comply with the following classifications, and no other products are used.

#### Grease nipples

Grease: Super Lithium AGCO No. 2, 410 g (14.46 oz) tube - reference 7901 4728

2

### 2.9.2 Three-point linkage LUBRICATION

T001441

#### Frequency

Check/lubricate the linkage mechanism once a week.

#### Lubrication points

**IMPORTANT:** The threaded parts and hitch pins must be correctly protected with grease.

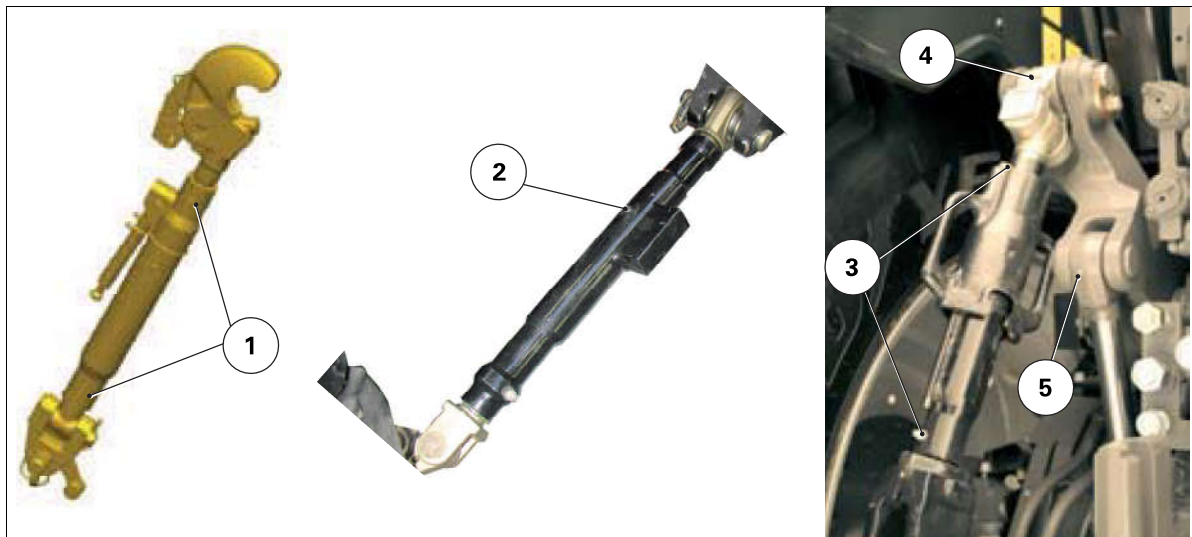


Fig. 1.

I004170

(1) Top link  
(2) Stabilizers

(3) (4) Lift rods  
(5) Lift rams

### 2.9.3 Front linkage: lubrication

T001799

#### Frequency


Check/lubricate the front linkage joints once a week.


**IMPORTANT:** During extended storage, ram rods (A) [fig. 3](#) should not come into contact with the air (risk of corrosion and subsequent leakage). Rams should be fully retracted or greased.





Number	Amperage	Size	Protected function
F60	7.5 A	Small	+ APC <sup>(2)</sup> - Linkage controller - AGCOMMAND - Diagnostics connector.
F61	3 A	Small	Alternators 1 and 2 + APC <sup>(2)</sup>
F62	5 A	Small	K15 relay power circuit supplying + APC <sup>(2)</sup> to the reversing lights and reversing alarm
F63	10 A	Small	K26 relay power circuit supplying + APC <sup>(2)</sup> to the air conditioning condenser and compressor
F64	10 A	Small	Front accessories socket + BAT <sup>(3)</sup>
F65	10 A	Small	External rear-view mirror defroster switch + APC <sup>(2)</sup>
SH2	25 A	Average	Main beams on hand rails/grille
SH3	15 A	Average	Low beams on hand rail/grille
K1			Relay for windshield wiper and indicator control unit and windshield wiper motor
K2			Battery circuit breaker relay
K3			Main beams on hand rail relay
K4			Low beams on hand rail relay
K6			Battery earth relay
K7			Relay for function 4 switch on Multi Function Joystick
K8			Relay for function 3 switch on Multi Function Joystick
K9			Auto-Guide +BAT <sup>(3)</sup> relay
K10			Relay for main beams on hand rail/grille, main beams control unit
K11			Relay for flashing warning light and right-hand indicator on fender and hand rail
K12			Relay for work lights on hand rails and front power socket, information to work light module
K13			Relay for work lights at rear of roof, to the lighting module for the work lights at rear of roof
K14			Lighting module relay for work lights on grille and information to work light module on grille
K15			Relay for reversing lights and reversing alarm
K16			Power socket relay on right-hand pillar
K17			Not used
K18			Relay for right-hand pillar power socket +APC <sup>(2)</sup>
K19			Relay for dipped lights on hand rail and grille
K20			Relay for left-hand indicator on fender and hand rail
K21			Relay for work lights on hand rails and fenders, indicator light for work lights
K22			Relay for roof rotary beacons, rotary beacon on front power socket, keypad information for rotary beacons on roof and on front power socket
K23			Relay for work lights at front of roof, to the lighting module for the work lights at front of roof
K24			Brake lights relay

	<b>Dyna-6 transmission High-pressure transmission oil filter blockage indicator light</b>
Not used	

	<b>Differential lock indicator light</b>
Activating condition(s)	
<ul style="list-style-type: none"> <li>- Indicator light steady on = differential lock engaged</li> <li>- Indicator light flashing quickly = differential lock error</li> </ul>	
<b>Cause(s)</b>	<b>Solution(s)</b>
Error in one of the components	Contact the dealer.

	<b>Rear PTO engaged indicator light</b>
Activating condition(s)	
<ul style="list-style-type: none"> <li>- Indicator light flashing slowly = rear PTO pre-engaged</li> <li>- Indicator light steady on = rear PTO engaged</li> <li>- Indicator light flashing quickly = rear PTO error</li> </ul>	
<b>Cause(s)</b>	<b>Solution(s)</b>
Error in one of the components	Contact the dealer.

	<b>Dyna-6 transmission Pressure light for brakes (ParkLock) and pneumatic brakes</b>
Activating condition(s)	
<ul style="list-style-type: none"> <li>- Indicator light flashing = minor error affecting the ParkLock</li> <li>- Indicator light permanently on = pressure in pneumatic brake system too low or major error affecting the ParkLock</li> </ul>	
<b>Cause(s)</b>	<b>Solution(s)</b>
Error in one of the ParkLock components	Contact the dealer.
Pressure in pneumatic brake system lower than 4 bar (58 psi)	Check the condition of the air connection couplers with the implement, the implement braking system, and the pneumatic braking system.
Braking pressure sensor faulty	Contact the dealer.

	<b>Engine oil pressure indicator light</b>
Activating condition(s)	
<ul style="list-style-type: none"> <li>- Indicator light flashing slowly = engine oil pressure low - warning</li> <li>- Indicator light permanently on = insufficient engine oil pressure (&lt; 1 bar (15 psi)) - STOP warning</li> <li>- Indicator light flashing with general failure warning light = engine error</li> </ul>	
<b>Cause(s)</b>	<b>Solution(s)</b>

No.		FM I	Components concerned	Causes
E	1761	4	DEF tank gauge	Voltage below normal
E	1761	18	DEF tank gauge	Low level
E	2791	0	EGR valve	Temperature alarm
E	2791	7	EGR valve	Incorrect position
E	2791	10	EGR valve	Torque limit
E	2791	11	EGR valve	Short circuit
E	2791	12	EGR valve	Initialization error
E	2791	14	EGR valve	Overload
E	2791	16	EGR valve	Temperature danger
E	2791	19	EGR valve	Communication error
E	2791	31	EGR valve	Absent
E	3031	3	DEF tank temperature sensor	Voltage above normal or open circuit
E	3031	4	DEF tank temperature sensor	Voltage below normal
E	3031	10	DEF tank temperature sensor	Abnormal rate change during heating cycle
E	3031	14	DEF tank temperature sensor	Deicing time exceeded
E	3031	16	DEF tank temperature sensor	Temperature above normal
E	3361	3	DEF metering module	Low side short-circuited to +12 V
E	3361	4	DEF metering module	High side short-circuited
E	3361	5	DEF metering module	High side short-circuited to +12 V or open circuit
E	3361	6	DEF metering module	Low side short-circuited to earth (-) or open circuit
E	3361	14	DEF metering module	Abnormal operation
E	3361	31	DEF metering module	Operating temperature too high
E	3363	3	DEF tank preheating liquid control valve	Short circuit to +12 V
E	3363	4	DEF tank preheating liquid control valve	Shortcut to Ground
E	3363	5	DEF tank preheating liquid control valve	Open circuit
E	3363	31	DEF tank preheating liquid control valve	Excessive temperature
E	3509	31	EEM4 controller	5 V DC supply 1 out of range
E	3510	31	EEM4 controller	5 V DC supply 2 out of range
E	3511	31	EEM4 controller	5 V DC supply 3 out of range
E	3512	3	EEM4 controller	12 V supply 1 above normal
E	3512	4	EEM4 controller	12 V supply 1 below normal
E	4201	2	Crankshaft speed sensor	Irregular signal
E	4201	31	Crankshaft speed sensor	No signal
E	4332	0	DEF system	Excess pressure detected
E	4332	11	DEF system	Metering pump fault
E	4332	14	DEF system	Pressure test fault
E	4332	16	DEF system	Metering module pressure above normal
E	4332	18	DEF system	Metering module pressure below normal
E	4332	31	DEF system	Draining interrupted at previous stop
E	4334	3	DEF pressure sensor	Voltage above normal or open circuit

No.	Components concerned	Causes
V42		Output stage fault (output stage for pilot solenoid valve)
V43		Position transducer fault
V81		Valve spool cannot be brought back to neutral position
V82		Valve spool not in neutral when switched on
V83		Checksum error

**2.13.14 Air conditioning error codes**

T014652

No.	Component(s) concerned	Cause(s)
AC01	<b>X441</b> - Heating temperature sensor	Sensor open
AC02	<b>X441</b> - Heating temperature sensor	Sensor short-circuited
AC03	Mixed air temperature sensor 2	Sensor open
AC04	Mixed air temperature sensor 2	Sensor short-circuited
AC05	<b>X69</b> - Cab interior temperature sensor	Sensor open
AC06	<b>X69</b> - Cab interior temperature sensor	Sensor short-circuited
AC07	<b>X358</b> - Outside temperature sensor	Sensor open
AC08	<b>X358</b> - Outside temperature sensor	Sensor short-circuited
AC09	<b>X443</b> - Evaporator temperature sensor	Sensor open
AC10	<b>X443</b> - Evaporator temperature sensor	Sensor short-circuited
AC11	<b>X70</b> - Solar radiation sensor	The signal from the solar sensor is outside its limits or is giving an impossible value
AC12	Engine coolant temperature sensor	Sensor open
AC13	Engine coolant temperature sensor	Sensor short-circuited
AC14	<b>X449</b> - Motor for left-hand heating shutter	The signal from the potentiometer of the left-hand recirculation actuator is outside its operating range
AC15	<b>X449</b> - Motor for left-hand heating shutter <b>X450</b> - Motor for right-hand heating shutter	The potentiometer reference is short-circuited to earth
AC16	<b>X439</b> - Air conditioning control module (blue connector) <b>X440</b> - Air conditioning control module (yellow connector)	Error in temperature selected, the signal is out of range
AC17	<b>X439</b> - Air conditioning control module (blue connector)	Error from the fan potentiometer
AC18	<b>X69</b> - Cab interior temperature sensor	Ambient temperature sensor fan fault
AC19	<b>X451</b> - Motor for heating mixer shutter	Stepper motor output error (water valve)
AC20	<b>X449</b> - Motor for left-hand heating shutter <b>X450</b> - Motor for right-hand heating shutter	Left-hand and right-hand recirculation actuator motor output error
AC21	<b>X318</b> - Automatic air conditioning compressor	Air conditioning compressor relay output error
AC22	<b>X453</b> - Heater accelerator pump	Water pump relay output error
AC23	<b>X436</b> - Left-hand side fan switch/ <b>X437</b> - Relay for left-hand side fan	Fault with fan output
AC24	<b>X439</b> - Air conditioning control module (blue connector) <b>X440</b> - Air conditioning control module (yellow connector)	Engine speed error



Fan	Vistronic clutch fan
Belts	Poly-V ribbed belts
Water pump	Centrifugal, belt-driven

**3.3.4 Tightening torques**

T001345

Drain plug	35 Nm (25.81 lbf ft)
------------	----------------------



## 3.7 Power take-off

### 3.7.1 Specifications

T001349

Front power take-off specifications	
Number of selections possible for front PTO	1000 rpm
Maximum permissible power, hp (kW)	Clockwise: 134 (100)
Maximum permissible input torque	Clockwise: 497 Nm (367 lbf ft)
Maximum permissible output torque	Clockwise: 955 Nm (704 lbf ft)
Rotational direction	1 clockwise (viewed from the front of the tractor)
Engine speed for 1000 rpm PTO	1920 rpm
Ratio	1.92
Clutch type	Hydraulics
Splined shaft type	Fixed shaft with 21 splines, diameter 35 mm (1.4 in) (1"3/8)

3

Rear power take-off (PTO)	
Power take-off	Proportional to engine speed.
Clutch	Electrohydraulic
Type of shaft	Flanged
Number of splines	<ul style="list-style-type: none"> <li>- 6 or 21 splines: shaft diameter 35 mm (1.4 in)</li> <li>- 20 splines: shaft diameter 45 mm (1.8 in)</li> </ul>
PTO speed	540 at 1890 engine rpm/540E at 1524 engine rpm/1000 rpm at 2000 engine rpm/1000E at 1595 engine rpm
Economy PTO	540E/1000E
Maximum permissible power, hp (kW)	<ul style="list-style-type: none"> <li>- 540 version with 6-spline shaft: 140 (104)</li> <li>- 540E version with 6-spline shaft: 85 (63)</li> <li>- 1000/1000E version with 20 or 21-spline shaft: 194 (145)</li> </ul>

### 3.7.2 Tightening torques

T001394

Rear PTO shaft retaining screw	69 Nm (51 lbf ft)
--------------------------------	-------------------



Reference		X	Y	Z
11 <sup>(1)</sup>	M20	-1862 mm (-73.4 in)	-315 mm (-12.4 in)	-125 mm (-4.9 in)
12 <sup>(1)</sup>	M20	-1862 mm (-73.4 in)	-315 mm (-12.4 in)	-45 mm (-1.8 in)
13 <sup>(1)</sup>	M20	-947 mm (-37.3 in)	-280 mm (11.0 in)	27.5 mm (1.1 in)
<sup>(1)</sup> 14	M20	-947 mm (37.3 in)	-280 mm (-11.0 in)	-37.5 mm (-5.7 in)
15 (Not used)	-	-	-	-
16 <sup>(1)</sup>	M20	-947 mm (-37.3 in)	-280 mm (-11.0 in)	-102.5 mm (-4.0 in)
17 <sup>(1)</sup>	M20	86 mm (3.4 in)	-274 mm (-10.8 in)	-206.5 mm (-8.1 in)
18 <sup>(1)</sup>	M20	86 mm (3.4 in)	-274 mm (-10.8 in)	-146.5 mm (-5.8 in)
19 <sup>(1)</sup>	M20	86 mm (3.4 in)	-274 mm (-10.8 in)	-45 mm (-1.8 in)
20 <sup>(1)</sup>	M20	331 mm (13.0 in)	-160 mm (-6.3 in)	-360 mm (-14.2 in)
21 <sup>(1)</sup>	M20	331 mm (13.0 in)	-160 mm (-6.3 in)	-300 mm (-11.8 in)
22	203 mm (8.0 in)			
23	275 mm (10.8 in)			
24	235 mm (9.3 in)			

1. Front-end loader attachment points

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: [www.heydownloads.com](http://www.heydownloads.com) by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL