

Unimog Option List for U500 North America

Models: **405.210** **U500NA, short wheelbase**
 405.230 **U500NA, long wheelbase**



Standard features of the Unimog U500 NA – 2005 model

Engine:

- MB 906 diesel engine; 260 hp at 2,200 rpm, torque 700 ft-lbs, max. rpm: 2,500
- Mercedes-Benz 6-cylinder diesel engine water cooled, turbo charger and intercooler
- Electronic injection governor (MR)
- Interlock starter switch
- US regulations for noise dampening will be respected, noise dampening insulation under cab deck
- Electronic accelerator
- Electronic hand throttle
- Electronically governed max. speed of 55 mph, (max. speed of 70 mph optional)
- Cooling fan, electronically regulated, hydraulic drive
- Air filter with pre-separator
- Air compressor; spur gear driven, water cooled, 15.5 ccm displacement
- 2-step engine brake, throttle in manifold, compression brake in cylinder head
- Governor characteristics for driving (RQV) and implement operation (RSV) electronically controlled
- Long maintenance intervals; after 700 engine working hours
- Cold start ability up to 1°F / -17°C

Weights:

- Gross vehicle weight (GVW): 26,000 lbs (11,800 kg)
- Front axle weight (FAW): 11,900 lbs (5,400 kg)
- Rear axle weight (RAW): 16,500 lbs (7,500 kg)

Wheelbases:

- Model 405.210: 131.89 in / 3,350 mm
Turning diameter: 49.54 ft / 15.1 m (wall to wall)
- Model 405.230: 153.54 in / 3,900 mm
Turning diameter: 55.45 ft / 16.9 m (wall to wall)

Transmission:

- Fully synchronized transmission, 8 forward, 6 reverse gears
- Permanent all-wheel drive with inter-axle differential lock
- Telligent® Shifting, Electronic Pneumatic Shifting (EPS) with Electronic Quick Reverse (EQR)
- Cruise control / speed limiter
- Preparation parts for retrofitting of front PTO (code N00)
- Retrofitting possibilities for transmission PTO (code N18)

Clutch:

- Single-dry clutch, diameter 15.5 in / 395 mm

Portal axles:

- Overall ratio: $i=5.92$; pinion / ring gear: $i=2.182$ (24:11); wheel hubs: 2.714 (38:14)
- Coil springs, telescopic shock absorbers, stabilizers front and rear
- Differential lock at rear axle

Brake:

- Dual circuit air brake system; pressure 117.5 PSI / 8.1 bar
- Front and rear pneumatic disc brakes
- Four-wheel antilock brake system (ABS), spring loaded parking brake
- Antilock brake system with mud and snow switch
- Air dryer
- All wheel air disc brakes

Cab:

- Compound fiberglass cab; corrosion free, structural integrity of cab according to EU reg. ECE-R29
- Hydraulic cab tilting device integrated
- Flat cab floor
- Storage compartments:
 - o Large storage compartments under dash
 - o Bottle and cup holder integrated in door molding
 - o Storage box on the rear cab wall
 - o Storage area behind the driver's seat
- Door mounted armrest
- Ashtray
- Ceiling console with mounting provisions for radio
- Driver seat, adjustable
- Large rear window
- A/C and heater with multi speed fan, dust filter and air re-circulation
- Interior lighting with reading light for driver and passenger
- Cab suspension with shock absorbers
- 3 coat hooks
- Adjustable head rests (on seats)
- Ergonomic center console, controls centrally arranged and installation provisions for CB radio
- Multi-layered, tinted panorama windshield and large door windows for excellent visibility
- Windshield wipers; intermittent, 3 settings, windshield washer
- 3-point safety belts in B-column
- 3 sun visors

Drive:

- Differential locks on rear axle, electric-pneumatic engagement while in motion
- Progressive helical springs
- Power steering

Chassis:

- 60 gal / 227 l aluminum fuel tank
- Front towing jaw with pin
- Anti-slip steps with handle for windshield cleaning
- Frame with integrated standardized mounting points for implement and body installation
- Front integral support for fitting front mounting plate (adjustable)
- High mounted air-intake pipe
- Non-corrosive fenders

Electrical system:

- Rear trailer socket (SAE J560), 12 V, 7 pins
- Exterior mirrors heated, electrically adjustable
- Batteries 3x12 V / 96 Ah, 680 A (EN) 2400 CCA total
- Vehicle electric system: 12 V / 24 V
- Electric and electronic parts with radio interference suppression (EMC proof according to EU standard)
- Electronic power train management system with diagnostic interface and onboard diagnostics
- 14 V / 145 A (2.72 hp) alternator
- Centrally located electronic control box, protected inside cab
- Battery main switch at battery box (code E33)
- Permanent power plug (code E37)
- 12 V / 25 A power outlet in cab with C3 road speed signal (rectangular impulses)
- Opening for wiring harness at front and rear side of cab
- Body builder plug-in at battery box incl. male end of connector (12 V / 40 A), (code E47)

Instruments:

- Electric controls located in center console
- Adjustable dash board illumination
- Multi-function switches on steering column:
 - o Right hand side: Hand throttle, cruise control, speed limiter and exhaust brake
 - o Left hand side: Headlight beams, blinker, windshield wash/wiper, horn
- Large instrument panel LCD-displays and gauges for:
 - o Selectable speedometer (USA: miles; CDN: km)
 - o Tachometer
 - o Air system pressure indicator for 1st and 2nd circuit
 - o Engine coolant temperature indicator
 - o Fuel level indicator
 - o Hydraulic oil indicator
 - o Differential locks indicator
 - o Ambient temperature indicator
 - o Brake pad wear indicator
 - o Clutch fluid level indicator
 - o Coolant level indicator
 - o Steering fluid level indicator
 - o Air filter restriction indicator
 - o Engine oil indicator
 - o Transmission gear indicator
 - o Hour meter
 - o Trip mileage odometer (USA: miles; CDN: km)
 - o Clock

Lights:

- Headlights
- Additional side indicators
- Clearance lamps
- Rear lights: Clearance, blinker, tail lights, reflector backup lights
- Lights on entrance steps

Accessories:

- Onboard tools

Wheels:

- 4 rims 22.5 x 9.00 (code R40)
- 4 tires 315/80R22.5 Michelin XDN Grip, 156L

Rust protection:

- Under coating (Dinol)
- Sea wax conservation (code Z68)

Others:

- 15 gal / 57 l diesel fuel ex works

Standard warranty:

- One year bumper to bumper warranty, mileage unlimited
- Engine two years warranty, mileage unlimited

Available tires:

- 4 tires 385/65 R22.5 Michelin XZY, 158K, W48-J26-4/80, 55 mph only
- 4 tires 395/85 R20 Michelin XZL, 168G 987-G56-4/80, 70 mph, no snow chains
- 4 tires 445/65 R22.5 Michelin XZL, 55 mph only, no snow chains
- 4 tires 445/70 R24 Michelin XM47, 151G 972-G67-4/80, 55 mph only
- 4 tires 445/65 R22.5 Continental AC70, 160G P48-G56-4/10, 55 mph only

Available spare tires:

- 1 tire 315/80 R22.5 Michelin XDN Grip, 156L F18-L76-1/80
- 1 tire 385/65 R22.5 Michelin XZY, 158K, W48-J26-4/80, 55 mph only
- 1 tire 395/85 R20 Michelin XZL, 168G 987-G56-4/80, 70 mph, no snow chains
- 1 tire 445/65 R22.5 Michelin XZL, 55 mph only, no snow chains
- 1 tire 445/70 R24 Michelin XM47, 151G 972-G67-4/80, 55 mph only
- 1 tire 445/65 R22.5 Continental AC70, 160G P48-G56-4/10, 55 mph only

Cab base colors:

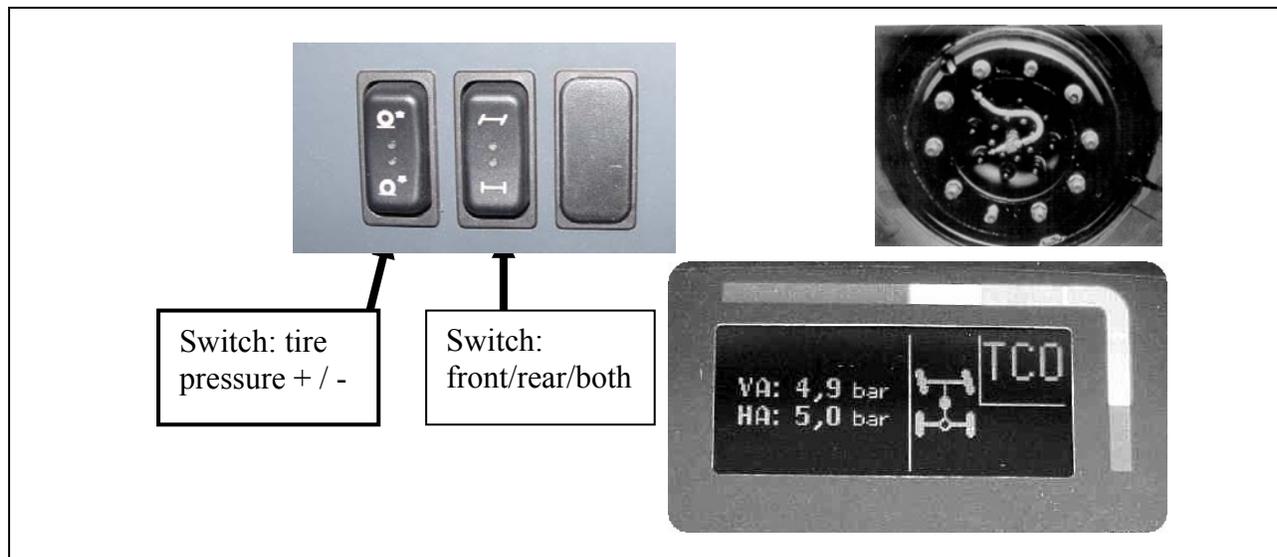
- MB0841 LaFrance Red
- MB1239 Traffic Yellow
- MB2549 Pure Orange
- MB2603 Deep Orange (Highway Orange), (European municipal color)
- MB3535 Carmine Red
- MB5318 Ultramarine Blue
- MB6841 Light Yellow Green
- MB8400 Doe Brown
- MB9147 Arctic White
- MB9678 Pure White

Cab metallic colors:

- MB3512 Almandine Red Metallic
- MB5371 Veilchen Blue Effect
- MB5555 Zircon Blue Metallic
- MB6269 Tourmaline Green Metallic
- MB9154 Carbon Black Metallic
- MB9744 Zircon Silver Metallic

CENTRAL TIRE INFLATION SYSTEM

A30 & A31



Technical description:

- ❖ Tire inflation/deflation at front and rear axle can be controlled separately or together, LCD display at instrument panel
- ❖ Tire air-supply line connected to tire via axle body; can be controlled while vehicle is in motion

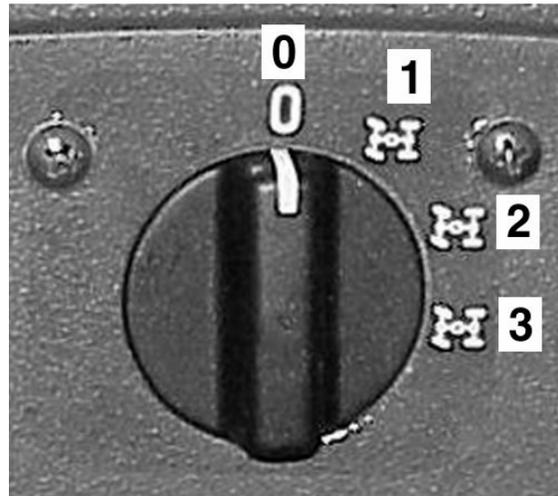
Notes/Product advantages:

- ❖ Off-road operation: improved off-road capabilities, better traction and minimized surface damage due to low tire pressure
- ❖ On-road operation: improved handling, lower tire temperature and reduced tire wear at high speed
- ❖ Optimized tire pressure can be guaranteed in every situation: lower tire wear and higher efficiency
- ❖ Specifically applicable for fire-fighting, utility, and agricultural operations

FRONT AXLE DIFFERENTIAL LOCK

A52

- 0 – Permanent all-wheel drive
- 1 – Inter-axle differential activated (std)
- 2 – Differential lock at rear axle (std)
- 3 – Differential lock at front axle



Technical description:

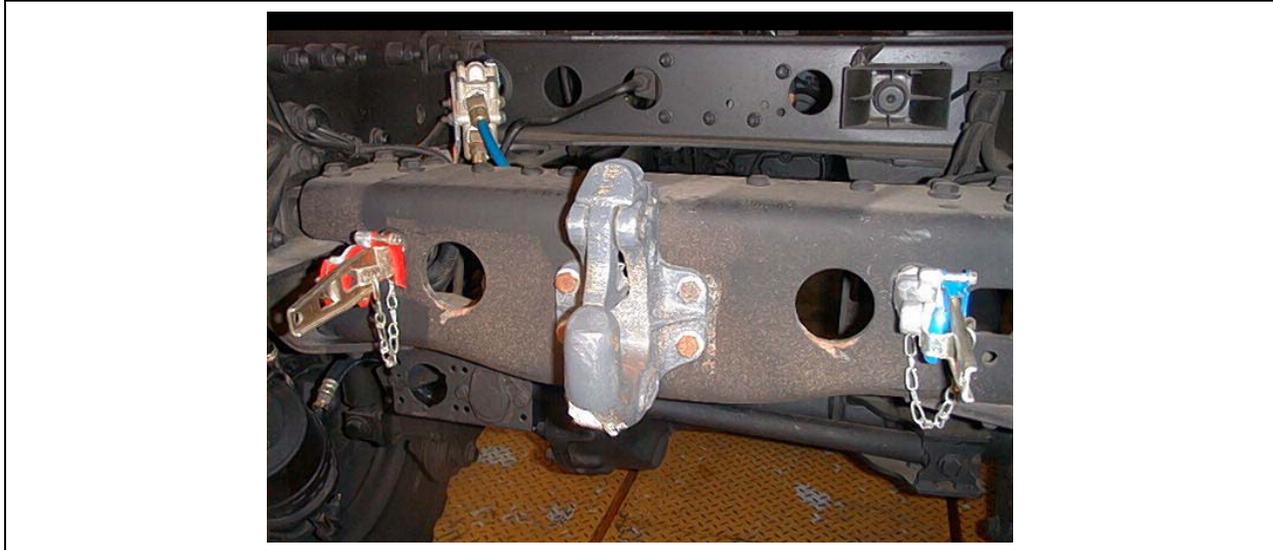
- ❖ Can be activated and deactivated while vehicle in motion
- ❖ Pneumatic actuation of dog clutch
- ❖ Switch in center console

Notes/Product advantages:

- ❖ Maximum traction in winter service and off-road operations
- ❖ Improved off-road capabilities in difficult situations as long as just one wheel has sufficient traction
- ❖ This option adds front axle differential lock to standard inter-axle differential and rear axle lock
- ❖ Minimal surface damage and reduced tendency to sink into soft ground

TRAILER AIR BRAKE PACKAGE

B42



Technical description:

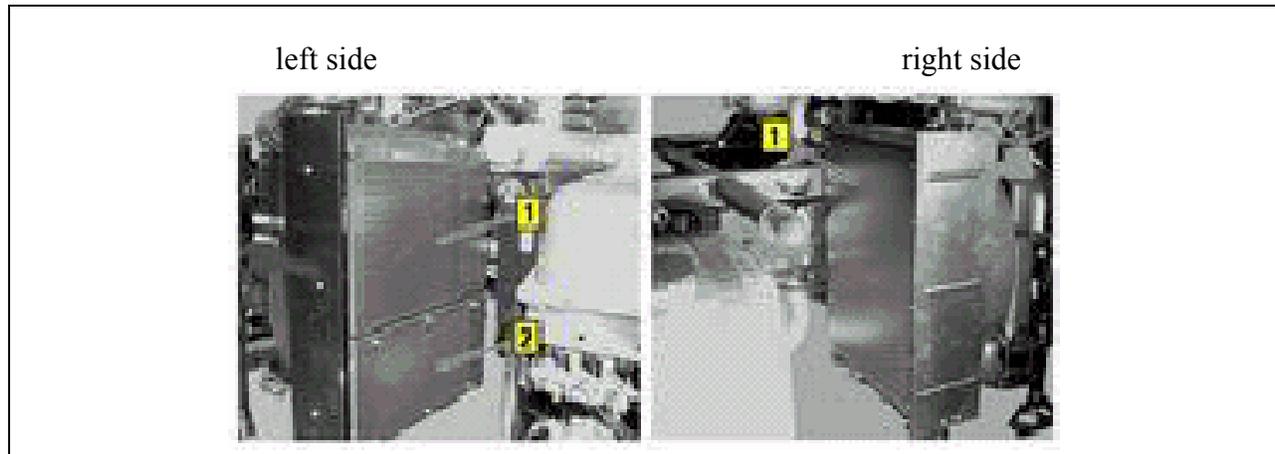
- ❖ Trailer air line connections mounted at end of frame
- ❖ Supply and control glad-hand connections

Notes/Product advantages:

- ❖ Conforms to FMVSS 121 regulations
- ❖ Consider trailer hitch option Q20 or Q21
- ❖ 7 way electrical connector at end of frame is standard

RADIATOR PROTECTION

C47



Technical description:

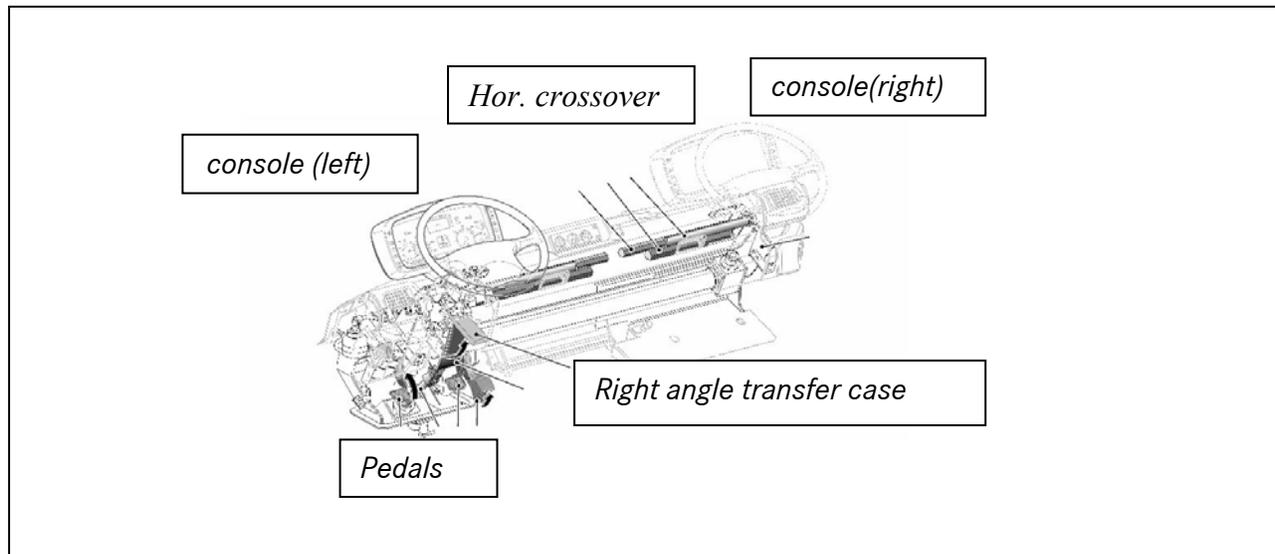
- ❖ Protection of the radiators against mechanical damage
- ❖ Right side of the vehicle:
 - Protective grill for the coolant radiator
- ❖ Left side of the vehicle:
 - Protective grill for the coolant radiator & A/C condenser
 - Protective grill for the radiator of the working hydraulics

Notes/Product advantages:

- ❖ Protection especially against mechanical damage of the radiator, e.g. tree branches, rocks, pebbles and other foreign object damages
- ❖ Recommendable applications are: Mowing, Construction, etc.

VARIOPILOT STEERING SYSTEM

C50



Technical description:

- ❖ The steering column, the instrument panel and the pedals can easily be repositioned from the left driving position to the right
- ❖ Interchangeable steering column carried by re-circulating balls on three precise shafts
- ❖ It is possible to stop the windshield wiper in every final position (variable wiper park position)

Notes/Product advantages:

- ❖ It **takes less than 30 seconds** to reposition the steering column.
- ❖ Optimum seat position can be selected by the driver; greatly improved view of the right-hand working area (for example when sweeping or mowing)
- ❖ Higher efficiency when mowing due to **1-man operation**
- ❖ **Variable park windshield wiper provides improved visibility while right hand driving**

VERTICAL EXHAUST PIPE, RIGHT

C87



Technical description:

- ❖ Right hand vertical exhaust pipe
- ❖ Heat shield
- ❖ Horizontal muffler
- ❖ Pipe mounted at the chassis frame for tilting of the cab

Notes/Product advantages:

- ❖ No additional back of cab protrusion
- ❖ Exhaust outlet high away from the vehicle
- ❖ No hot exhaust gases near the ground

VERTICAL EXHAUST PIPE, RIGHT, CHROME

C88



Technical description:

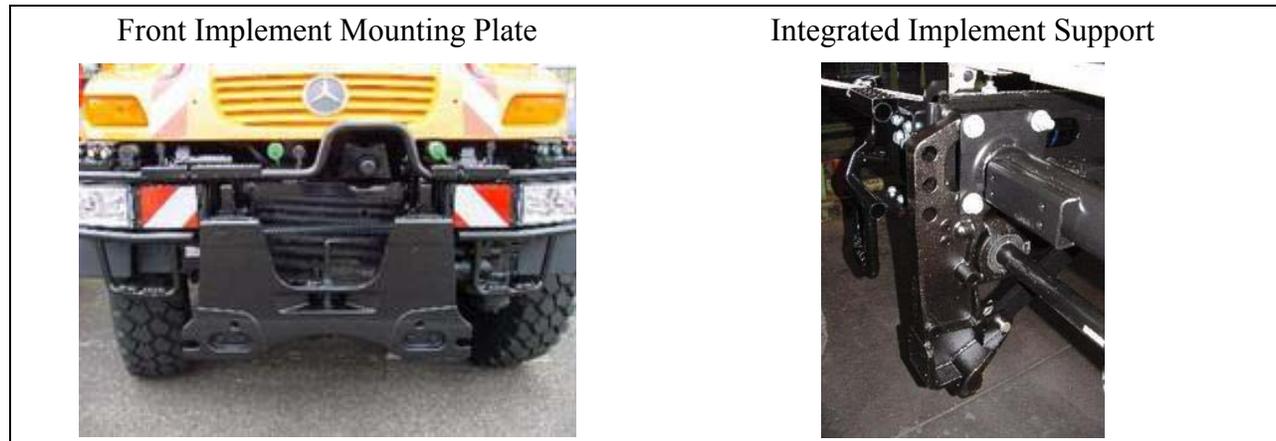
- ❖ Right hand vertical exhaust pipe
- ❖ Heat shield
- ❖ Horizontal muffler
- ❖ Pipe mounted at the chassis frame for tilting of the cab

Notes/Product advantages:

- ❖ No additional back of cab protrusion
- ❖ Exhaust outlet high away from the vehicle
- ❖ No hot exhaust gases near the ground

FRONT IMPLEMENT MOUNTING PLATE

D12



Technical description:

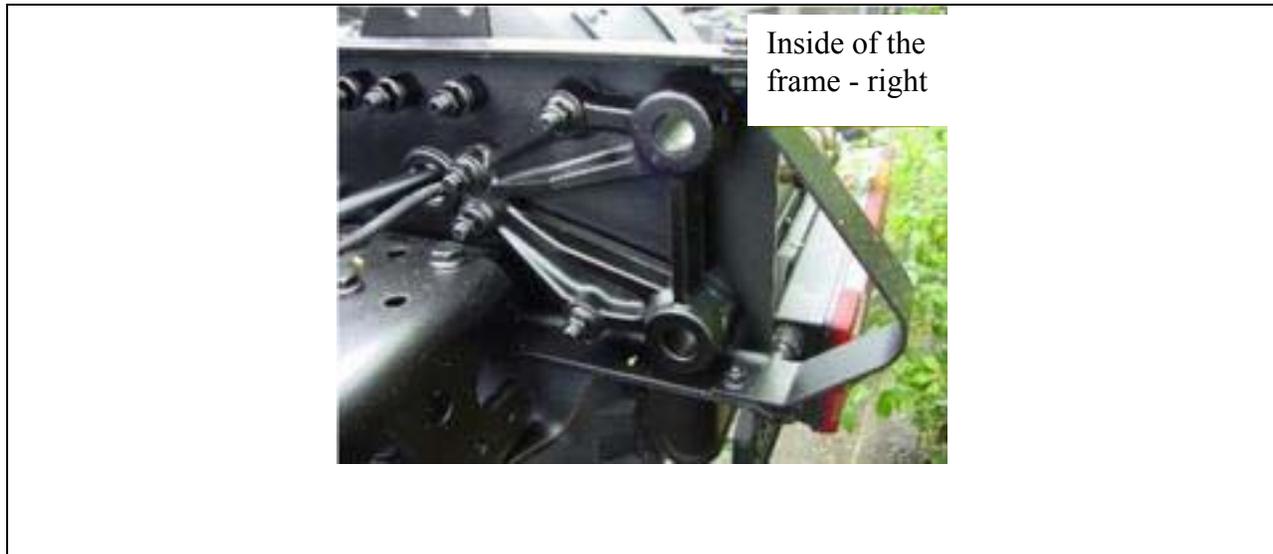
- ❖ Implement mounting plate integrally attached to chassis frame
- ❖ Height-adjustable by +/- 2.375 inches
- ❖ With integrated tow pin (towing capacity 150,000 lbs)
- ❖ Implement mounting with swivel screws and screw bolts possible
- ❖ Category 5 mounting scheme

Notes/Product advantages:

- ❖ Quick coupling of implements
- ❖ Maximum implement weight 40 inches in front of attachment plate: 4,400 lbs
- ❖ Maximum and minimum axle loads must be considered

REAR MOUNTING BRACKETS

D50



Technical description:

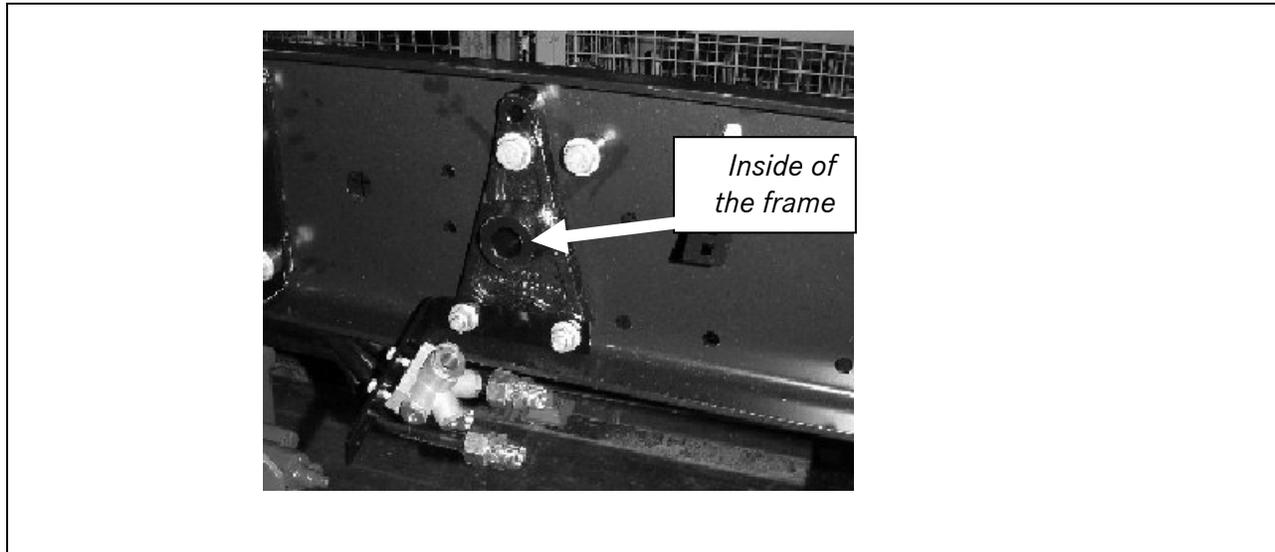
- ❖ Mounting brackets integrated into the frame rails, left and right side
- ❖ Implement mounting with 25 mm fasteners
- ❖ Hole spacing 6 inches

Notes/Product advantages:

- ❖ Maximum implement weight for on-road operation: 3,300 lbs at 20 inch distance
- ❖ Useful for mounting of superstructures and bodies at the rear chassis frame (for example small cranes, ballast weights, spreaders)
- ❖ Quick interchangeability of implements

CENTRAL MOUNTING BRACKETS

D60



Technical description:

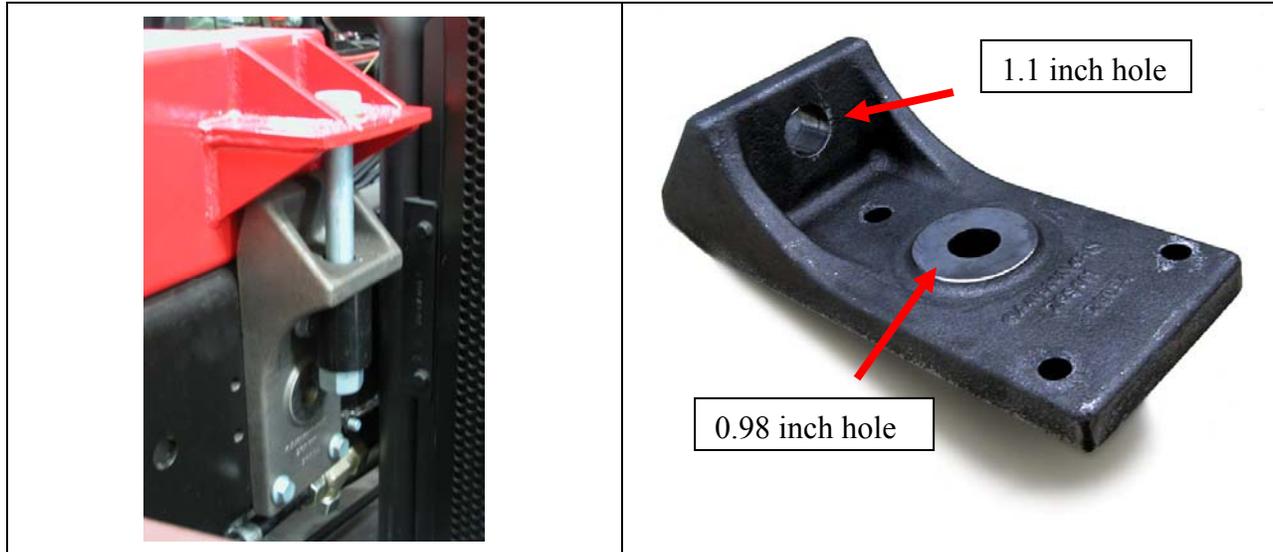
- ❖ 1.77 inch / 45 mm holes
- ❖ Precisely defined mounting points in the middle of the chassis frame, at the left and right frame rails:
 - 132" wheelbase: 2 holes per rail, 40" spacing (1,000 mm)
 - 154" wheelbase: 3 holes per rail, 40" and 20.5" spacing (1,000 + 520 mm)

Notes/Product advantages:

- ❖ Implement attachment points at the vehicle center (i.e. under carriage load bars by use of front end loaders, cleaning devices or graders between the axles etc.)
- ❖ Static and dynamic forces act onto the mounting points provided
- ❖ High stability at a low weight
- ❖ Code D60 must be used when using the serial platform & subframe (code P60) in combination with implements mounted between the axles.

CENTRAL MOUNTING BRACKETS

D62



Technical description:

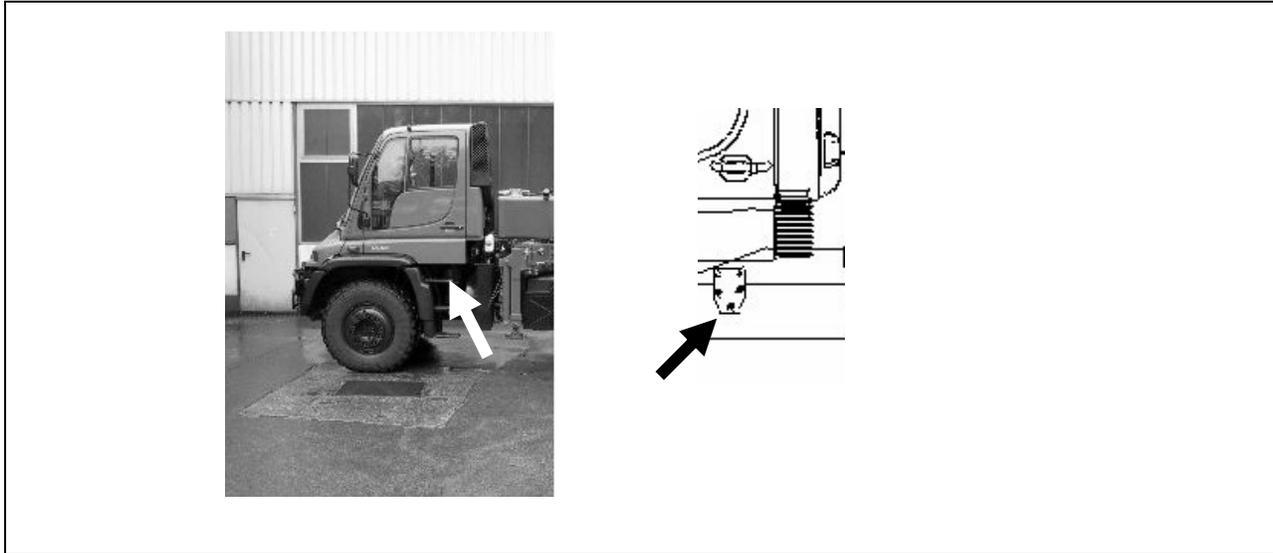
- ❖ Mounting brackets for attachment of subframes of heavy implements
- ❖ 1.1 inch / 28 mm hole for vertical bolts
- ❖ 0.98 inch / 25 mm hole for horizontal bolts (guarantees functionality of D60)
- ❖ Precisely defined mounting points in the middle of the chassis frame, at the left and right frame rails:
 - 132" wheelbase: 2 holes per rail, 40" spacing (1,000 mm)
 - 154" wheelbase: 3 holes per rail, 40" and 20.5" spacing (1,000 + 520 mm)

Notes/Product advantages:

- ❖ Increased structural strength
- ❖ Less time required to install implement subframes
- ❖ Lapse of the welded solutions made by the implement manufacturers
- ❖ Code D62 includes code D70
- ❖ Code D62 must be used for all implements/bodies with outriggers or leveling jacks that can raise the vehicle (e.g. cranes, aerial devices, drills, diggers, etc.)
- ❖ Code D62 must be used for all heavy implements
- ❖ Higher functionality than code D60 due the possible combination of e.g. a heavy mounting frame with an under carriage load bar of an front end loader
- ❖ Combination of Code D62 and Code P60 is not possible

IMPLEMENT MOUNTING PLATES (UNDER CAB)

D70



Technical description:

- ❖ Mounting plate at the front end of the frame, beneath the cab, near the suspension legs, on the right- and left-hand side

Notes/Product advantages:

- ❖ Easy and safe mounting of heavy implements (with mounting frame) which need to be supported in front beneath the cab (for example crane, lifting platform, drilling rig, etc.; all implements which can raise the vehicle)
- ❖ Stable and easily reached mounting points
- ❖ Reduced amount of assembly work for body manufacturers
- ❖ Code D70 included in Code D62

JUMP START STUDS, 12 VOLTS

E44



Technical description:

- ❖ Battery box mounted positive and negative jump start studs
- ❖ Located on the outside of the battery box

Notes/Product advantages:

- ❖ Easy and safe external starting assistance
- ❖ Jump start with 12 V ONLY

7 PIN POWER CONNECTION, FRONT OF TRUCK

E45



Technical description:

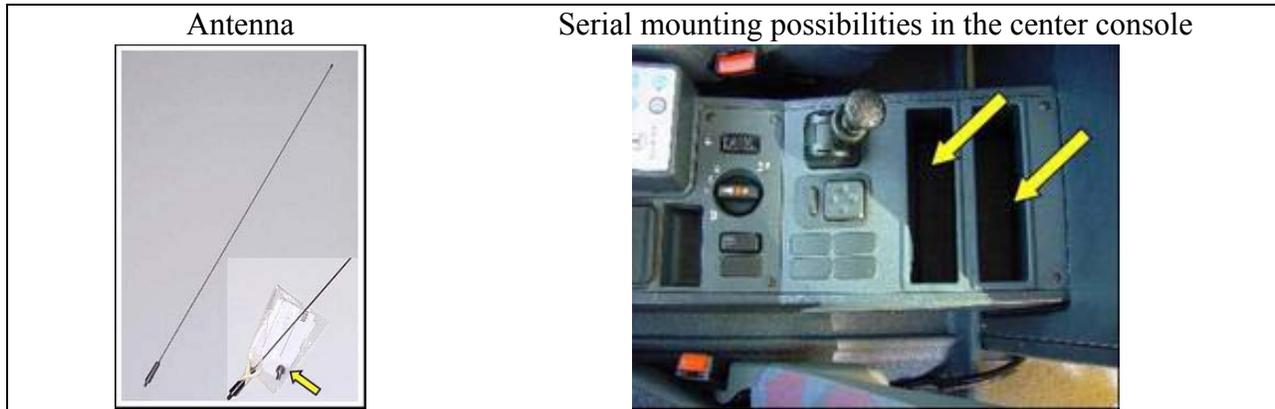
- ❖ 7-pin 12 V plug-in socket for the electric supply of directional indicators, clearance lights and license plate lights at the front implement attachment areas
- ❖ Location of the plug-in socket: left front side, behind the bumper
- ❖ Comply with SAE J 560

Notes/Product advantages:

- ❖ Power supply for front-mounted implement light equipment
- ❖ Quick and easily reachable connection of implement light equipment (for example for a snow plow)

MOBILE PHONE PRE-WIRE

E53



Technical description:

- ❖ Preparation for mobile phone
- ❖ Roof-mounted antenna with antenna base and rod on the right side of the cab
- ❖ Antenna line with plug socket to the center console
- ❖ For power supply: cab power supply (code E37, std.)

Notes/Product advantages:

- ❖ An antenna with adapter (loose in cab) will be delivered:
 - 1 antenna for 450 to 960 MHz frequency range
 - 1 antenna adapter for 1710 to 1880 MHz frequency range
- ❖ Antenna can be shortened according to requirements of frequency
- ❖ Simplifies customer installed mobile phone

TWO WAY RADIO PRE-WIRE

E54



Technical description:

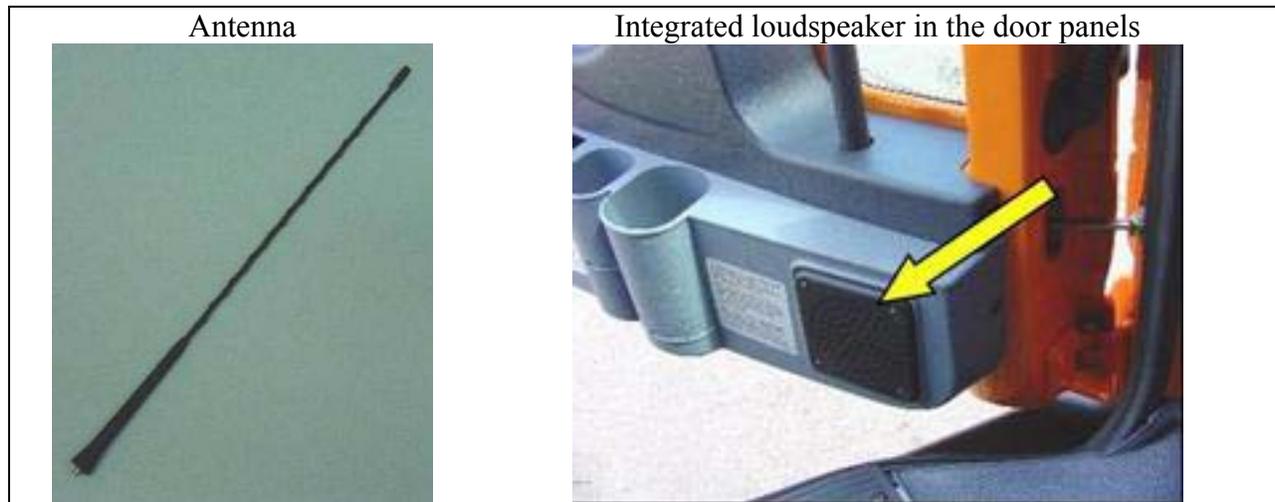
- ❖ Preparation for radio set for CB communication
- ❖ Roof-mounted antenna with antenna base and rod on the left side of the cab
- ❖ Antenna line with plug socket to the center console
- ❖ For power supply: cab power supply (code E37, std.)

Notes/Product advantages:

- ❖ An antenna for radio (loose in cab; 130 to 960 MHz frequency range) will be delivered
- ❖ Antenna can be shortened according to requirements of frequency
- ❖ Simplifies customer installed CB radio

AM/FM RADIO PRE-WIRE

E55



Technical description:

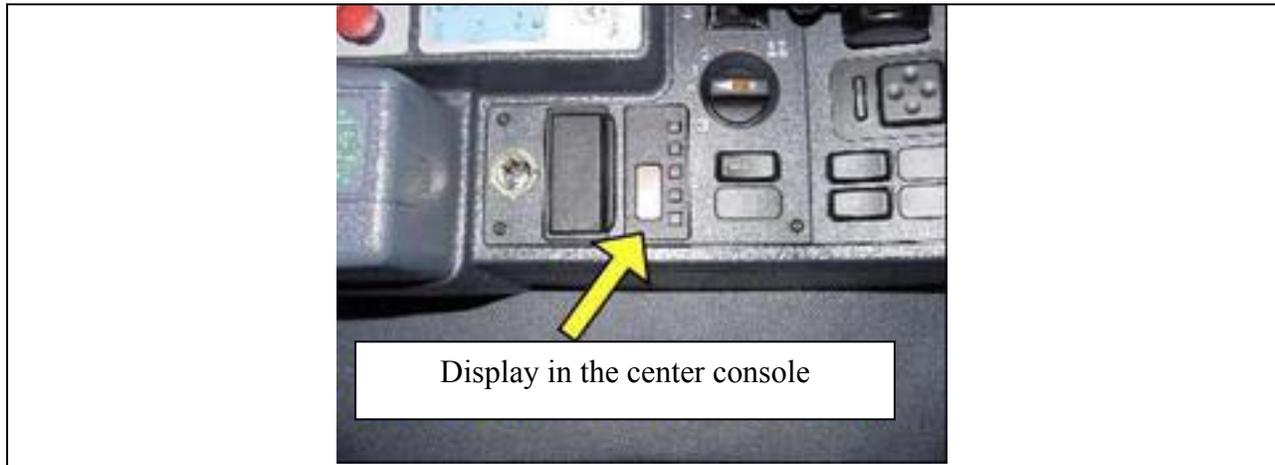
- ❖ Preparation for normal radio mounting at center of overhead
- ❖ Roof-mounted antenna at the cab center
- ❖ 1 loudspeaker at each front door trim (right and left)
- ❖ 12 V power supply connection

Notes/Product advantages:

- ❖ Radio can be mounted without any additional parts
- ❖ Easily reachable by both driver and passenger

**ADDITIONAL HEATING SYSTEM,
CAB AND ENGINE COOLING**

F43



Technical description:

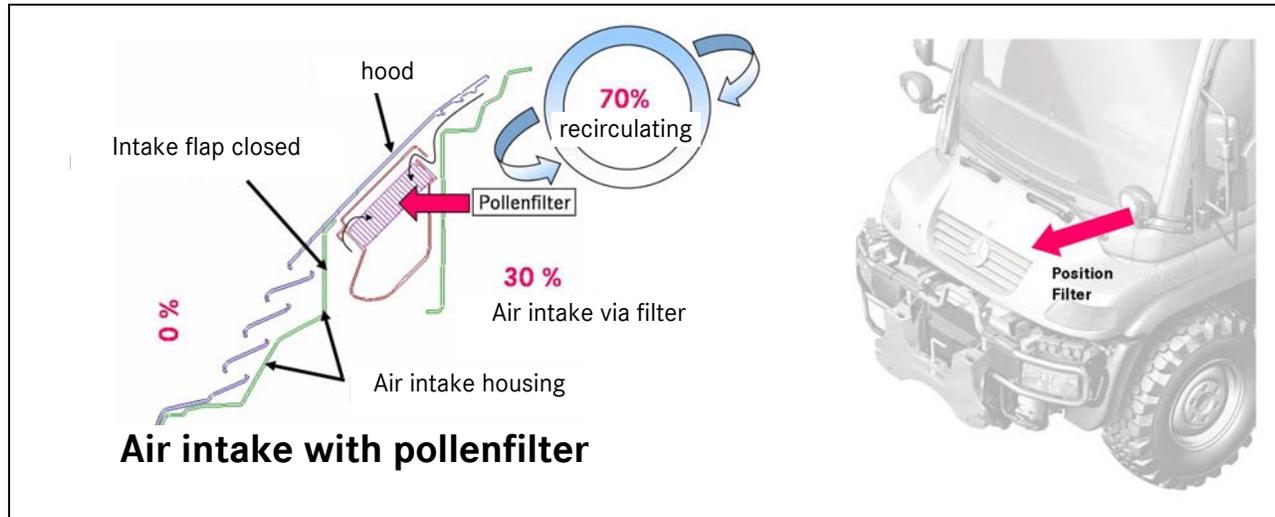
- ❖ Heats engine coolant while engine is not operating
- ❖ Fuel: diesel with fuel gauge in tank
- ❖ Heating start can be pre-selected up to 7 days via pre-selector clock on the center console
- ❖ Maximum output approximately 31,050 BTU / 12.07 hp

Notes/Product advantages:

- ❖ For heating of cab, defrosting of windows and pre-warming of engine coolant
- ❖ Free field of view when starting vehicle, easy and gentle engine starting even at extremely low outside temperatures
- ❖ Heating system available while engine not running

POLLEN FILTER

F46



Technical description:

- ❖ Pollen filter avoids intrusion of even the smallest dust particle into the cab
- ❖ Activation of the system will close the air intake flap and 30% of the air enters the cab via the filter and 70% of the air in the cab will be recirculated

Notes/Product advantages:

- ❖ Health protection for driver and passenger
- ❖ Inhalation of dirt and dust particles will be avoided
- ❖ For dirt and dust intensive applications, e.g. mowing, sweeping etc.
- ❖ Keeps the interior of the cab cleaner
- ❖ Available as of January 2006

7TH AND 8TH REVERSE GEARS

G03

7th and 8th Reverse Gears for Rail Road Applications



Technical description:

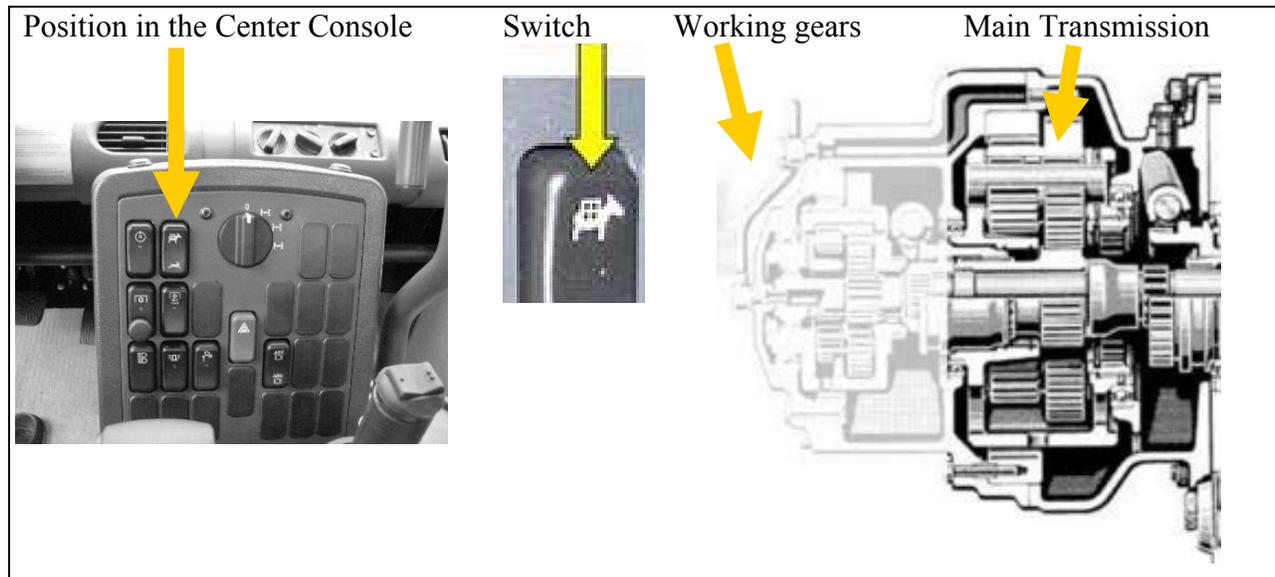
- ❖ 7th and 8th reverse gear in the transmission are available (standard: 6 reverse gears)

Notes/Product advantages:

- ❖ Advantageous for rail-road operation: during rail operation, reversing at a high speed (approximately 30 mph) possible

WORKING GEARS

G20



Technical description:

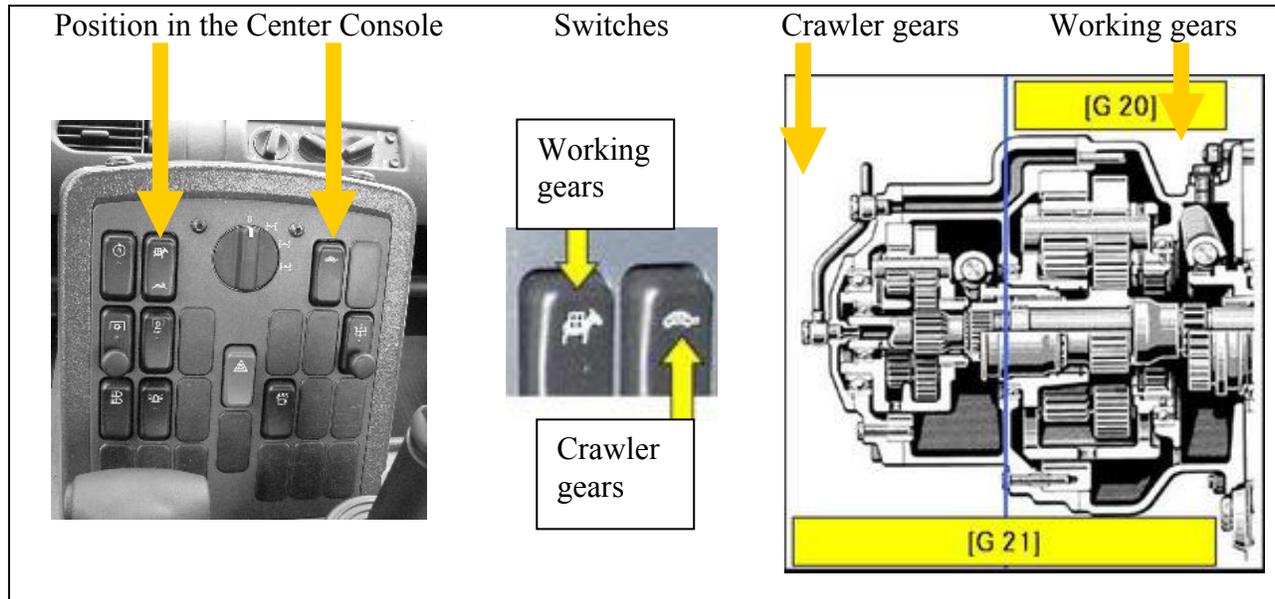
- ❖ Additional gear range with 8 additional forward and 8 additional reverse gears behind the main transmission
- ❖ Gear range is engaged pneumatically while stationary: switch at the center console (“donkey” symbol)
- ❖ Working gear range is fully utilizable for increased traction force
- ❖ Ratio 5.76:1

Notes/Product advantages:

- ❖ Reduced gear steps for improved traction and performance (for example: trailer and off-road operation etc.)
- ❖ Forward driving speed between 0.9 and 11.8 mph (1.5 to 18.9 km/h)
- ❖ Reverse driving speed between 0.6 and 7.7 mph (0.96 to 12.5 km/h)
- ❖ Utilization of working gears for operations at a low working speed (i. e. mowing, sweeping, etc.) and for increased traction (when towing heavy loads and driving off-road)

CRAWLER GEARS

G21



Technical description:

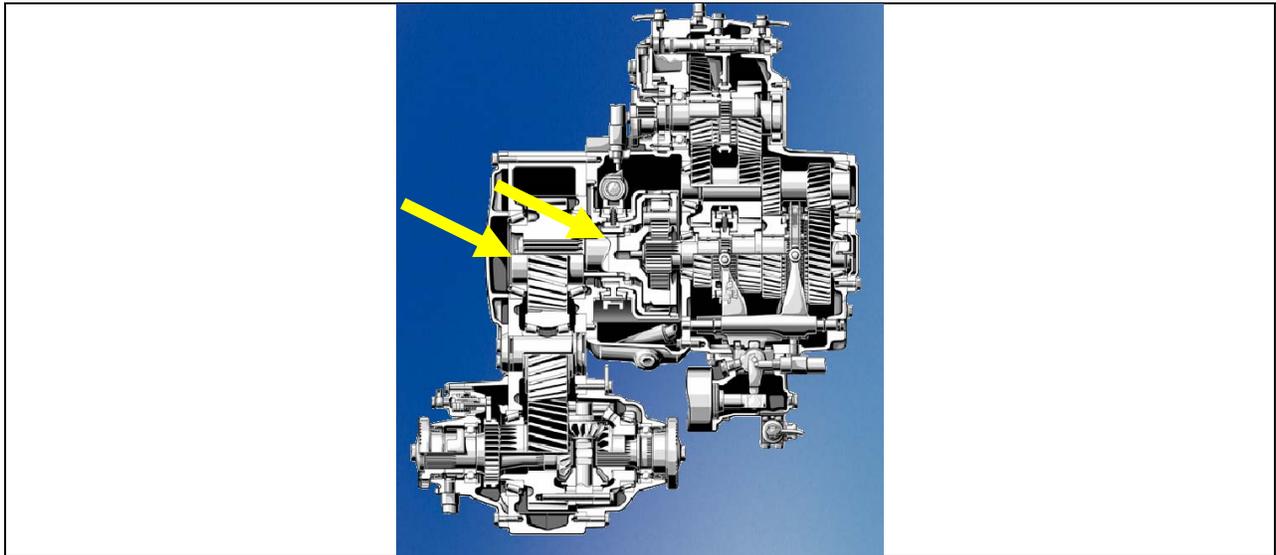
- ❖ 2 additional gear ranges with 16 additional forward and 16 additional reverse gears
- ❖ Gear ranges are engaged pneumatically while stationary: switches at the center console ("donkey" and "turtle" symbol)
- ❖ Working gear range is fully utilizable for increased traction and performance; crawler gear range is only to reduce the driving speed
- ❖ Total ratio: 55.87:1

Notes/Product advantages:

- ❖ Advantages of working gear range see code G 20
- ❖ 8 additional crawler gears; real crawler gear operation!
- ❖ Forward driving speed between 0.09 and 1.21 mph (0.15 to 1.95 km/h)
- ❖ Reverse driving speed between 0.06 and 0.8 mph (0.1 to 1.28 km/h)
- ❖ Utilization: snow cutter, asphalt cutter, trench cutter, joint cutter, plate ground compacter etc.

PREPARATION FOR RETROFITTING OF WORKING GEARS

G28



Technical description:

- ❖ Preparation for retrofitting of working gears
- ❖ Additional bearing at planetary set
- ❖ Longer shaft with a top cover at the end of the transmission allows retrofitting of working and crawler gears.

Notes/Product advantages:

- ❖ Easy and fast retrofitting of working and crawler gears
- ❖ Low costs for retrofitting of working and crawler gears
- ❖ Note: If transmission isn't equipped with G28 the complete transmission must be demounted and a short shaft replaced with a longer one to retrofit the additional gears.

EAS (ELECTRO AUTOMATIC SHIFT) SYSTEM

G48



Technical description:

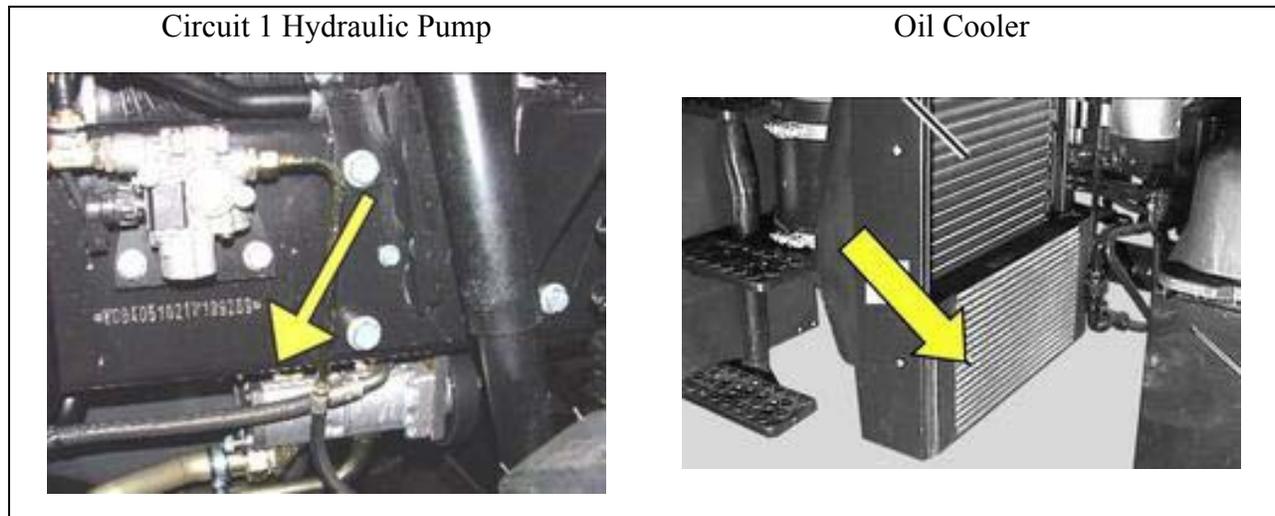
- ❖ Electronic Pneumatic Shifting is an automated clutch
- ❖ The system controls:
 - Clutch in for drive away and shifting
 - Declutch for shifting and stopping
- ❖ 2 Operating modes available: Automatic or Manual
- ❖ System uses serial components (clutch, EPS)

Notes/Product advantages:

- ❖ Hands remain on the steering wheel during automatic mode
- ❖ Reduced driver fatigue
- ❖ Less maloperation of the clutch and the EPS
- ❖ Less fuel consumption
- ❖ Decreased powertrain strain
- ❖ No engine stalling

SINGLE CIRCUIT HYDRAULIC SYSTEM

H02



(only in combination with code H12/H13/H14)

Technical description:

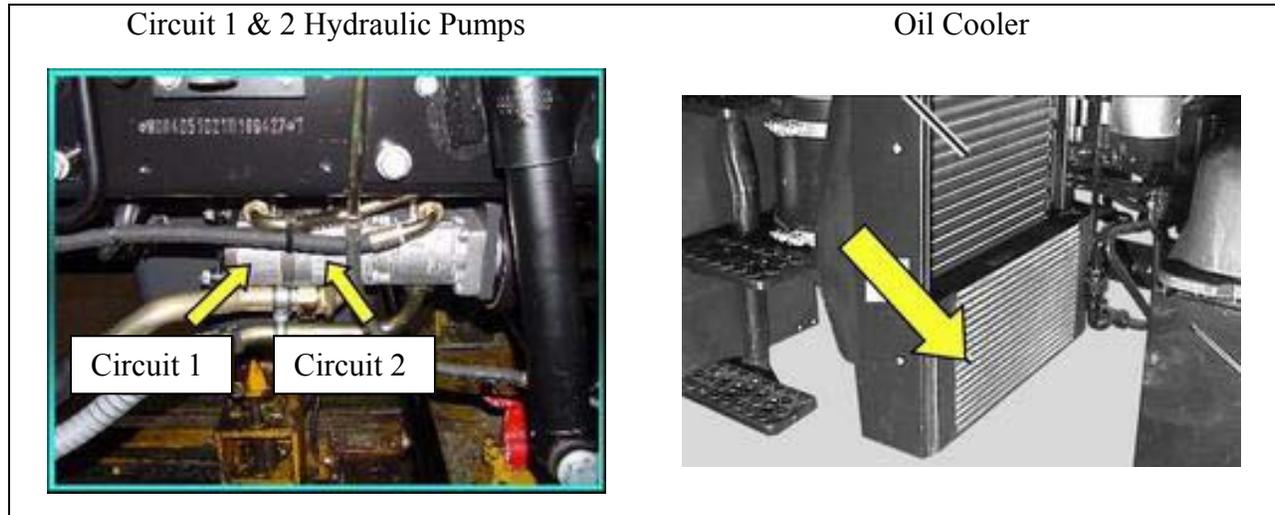
- ❖ Hydraulic system with pump driven by toothed belt
- ❖ Constant-delivery gear pump with 12.68 gal/min at 2,900 psi (48 l/min at 200 bar) at rated engine speed 2,200 rpm
- ❖ Hydraulic oil tank (11.89 gal) on the right side of the vehicle, behind the cab entry step
- ❖ Hydraulic oil cooling with cooler mounted at left hand
- ❖ Radiator

Notes/Product advantages:

- ❖ Hydraulic system for implement movements, for example lifting, lowering and swiveling
- ❖ Control of 2, 3 or 4 double-acting cylinders (H 12, H 13, H 14)
- ❖ Constant flow via connection 1 or 3 possible
- ❖ Utilization: for lifting and lowering implements, tilting tipper body, driving oil motor or external control

DUAL CIRCUIT HYDRAULIC SYSTEM

H06



(only in combination with code H12/H13/H14)

Technical description:

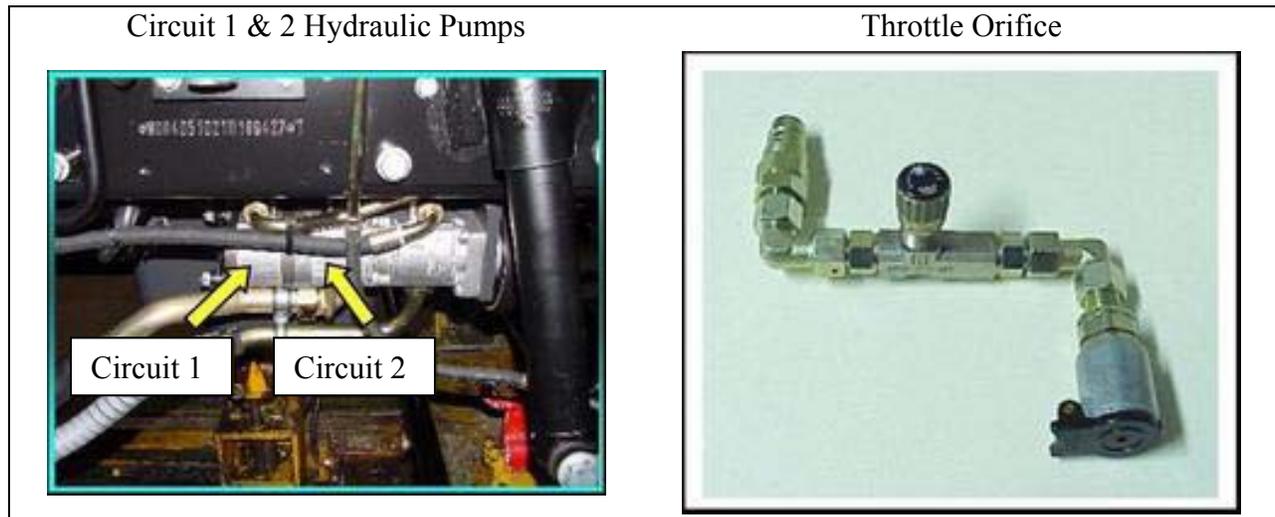
- ❖ Hydraulic system with 2 circuits performing independently of each other
- ❖ Tandem constant pump with 6.34 gal/min (circuit I) and 12.68 gal/min (circuit II) at 2,900 psi (circuit I: 24 l/min and circuit II: 48 l/min at 200 bar) at rated engine speed of 2,200 rpm
- ❖ Hydraulic oil tank (11.89 gal / 45 l) on the right side of the vehicle, behind cab entry steps
- ❖ Swapping of flow rates from circuit I to circuit II; combination of flow rates of circuits I and II, total 19.02 gal/min / 72 l/min

Notes/Product advantages:

- ❖ Range and connection possibilities similar to those of single circuit hydraulic system (H02), but also provided with additional delivery gear pump for driving hydraulic motors or external control valves
- ❖ Utilization: circuit I for positioning movements lifting, lowering and swiveling
- ❖ Hydraulic motors driven by circuit II, for example spreader; circuit I and II perform independently of each other

DUAL CIRCUIT HYDRAULIC SYSTEM WITH PROPORTIONAL VALVES

H08



(only in combination with code H12/H13/H14)

Technical description:

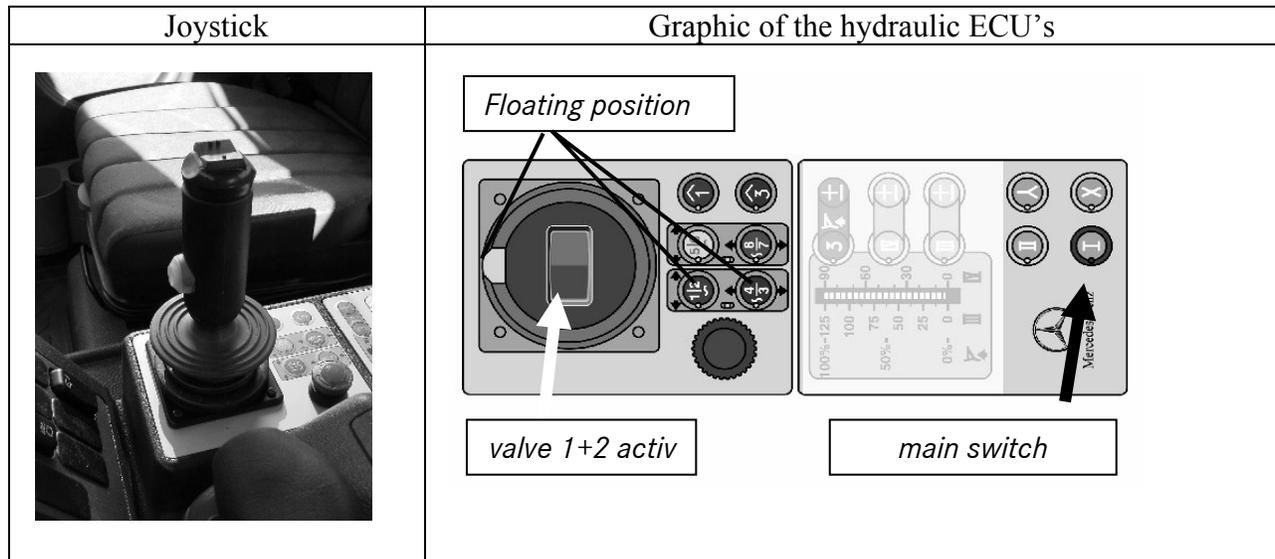
- ❖ Similar to H06, additional proportional control of hydraulic valves in circuit I at pressure side
 - ❖ Adjustable throttle valve will be delivered as well; allows for controlled lowering of implements; thus slower movements of implements*
- *for operating implements which do not touch the ground (for example for hedge and tree cutting) implement-sided pressure compensators must be locked*

Notes/Product advantages:

- ❖ Range and connection possibilities similar to those of H02 and H06, but with proportional control in pressure line which allows for positioning movements of valves 1 to 4
- ❖ Especially sensitive control
- ❖ Snow plow relief feature (code H61) requires H08

HYDRAULIC SYSTEM 2 VALVES

H12



In combination with H02/H06/H08

Technical description:

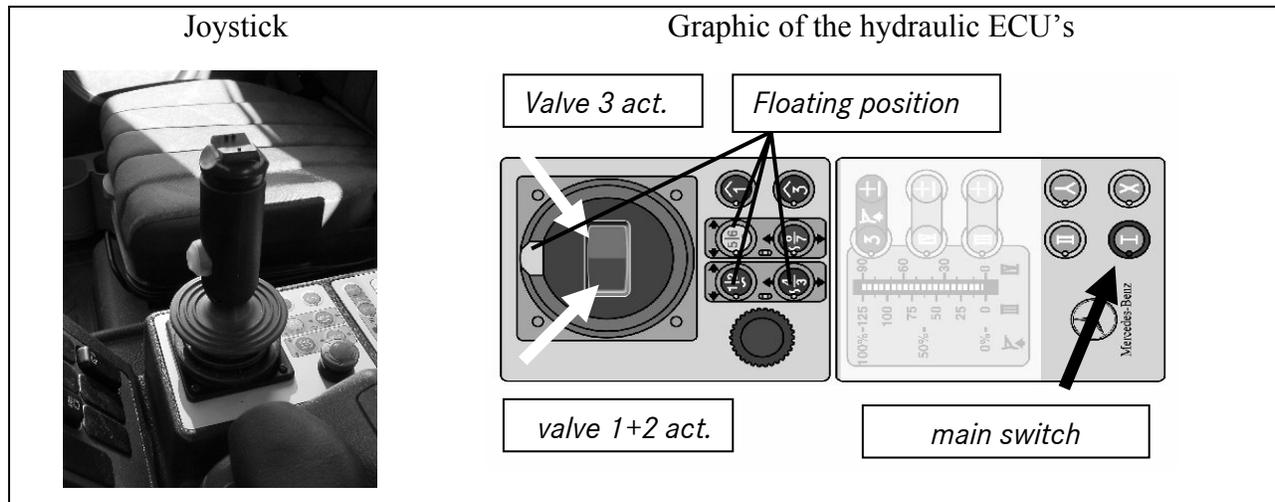
- ❖ Two double-acting control valves with floating position
- ❖ Implement control via joystick on the center console, valve 1 (red) actuated to the sides, valve 2 (green) forward and back
- ❖ Setting of floating position on joystick (button for floating position) and via separate control switches on the console
- ❖ Permanent power supply at connector 1 or 3 via pressure switch
- ❖ Central switch (on/off)

Notes/Product advantages:

- ❖ Ergonomically positioned
- ❖ Operation of vehicle and hydraulic system can be combined: for example shifting of gears (EPS) and operating of joystick
- ❖ Several possibilities of connecting hydraulic implements (front and rear)
- ❖ For tilting cylinder (H 43, H 44) connector at valve 2 (H 55) is provided

HYDRAULIC SYSTEM 3 VALVES

H13



In combination with H02/H06/H08

Technical description:

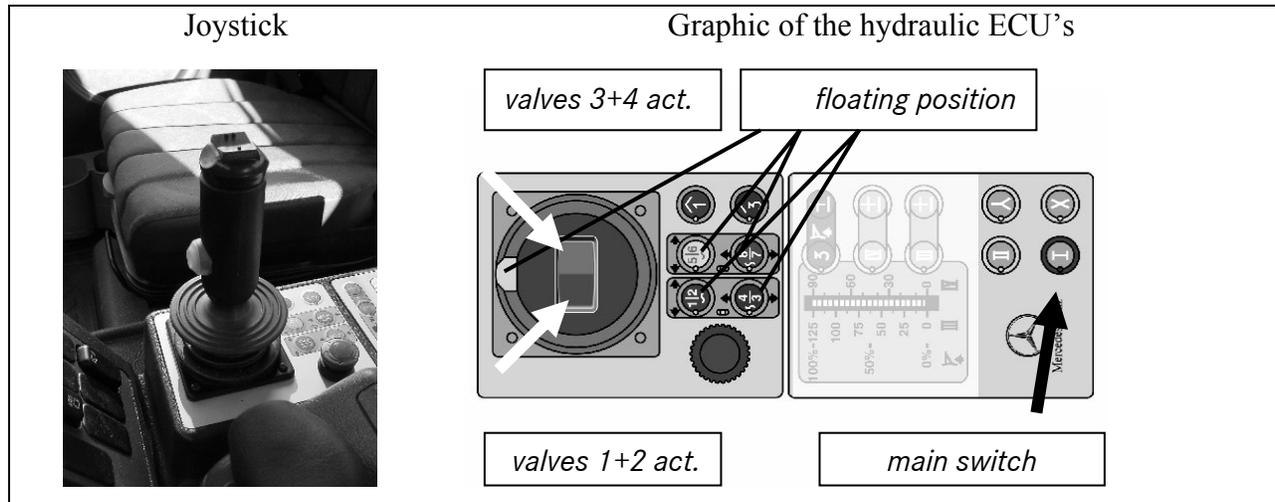
- ❖ Three double-acting control valves with floating position
- ❖ Implement control via joystick on the center console: switching from valve 1+2 to 3 via thumb-sized rocker switch on joystick head
- ❖ Setting of floating position on joystick (button for floating position) and via separate control switches on the console
- ❖ Permanent power supply at connector 1 or 3 via pressure switch
- ❖ Central switch (on/off)

Notes/Product advantages:

- ❖ Ergonomically positioned
- ❖ Operation of vehicle and hydraulic system can be combined: for example shifting of gears (EPS) and operating of joystick
- ❖ For tilting cylinder (H43, H44) connector at valve 3 (H57) is provided
- ❖ Several possibilities of connecting hydraulic implements front (H71, H73 and H75) and rear (H51, H55 and H57)

HYDRAULIC SYSTEM 4 VALVES

H14



In combination with H02/H06/H08

Technical description:

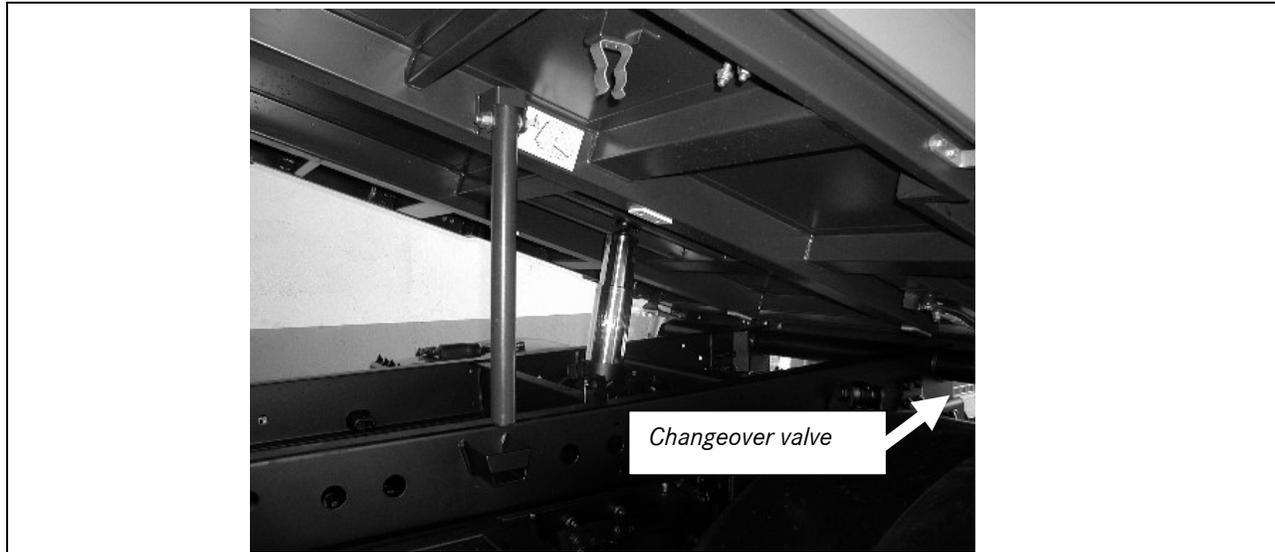
- ❖ Four double-acting control valves with floating position
- ❖ Implement control via joystick on the center console: switching from valve 1+2 to 3+4 via thumb-sized rocker switch on joystick head
- ❖ Setting of floating position on joystick (button for floating position) and via separate control switches on the console
- ❖ Permanent power supply at connector 1 or 3 via pressure switch
- ❖ Central switch (on/off)

Notes/Product advantages:

- ❖ Ergonomically positioned
- ❖ Operation of vehicle and hydraulic system can be combined: for example shifting of gears (EPS) and operating of joystick
- ❖ For tilting cylinder (H43, H44) connector at valve 3 (H57) is provided
- ❖ Several possibilities of connecting hydraulic implements front (H71, H73, H75 and H76) and rear (H51, H55 and H57)

TILTING CYLINDER FOR TIPPER BODY

H43/H44



Only in combination with J48 + H55/H57

Technical description:

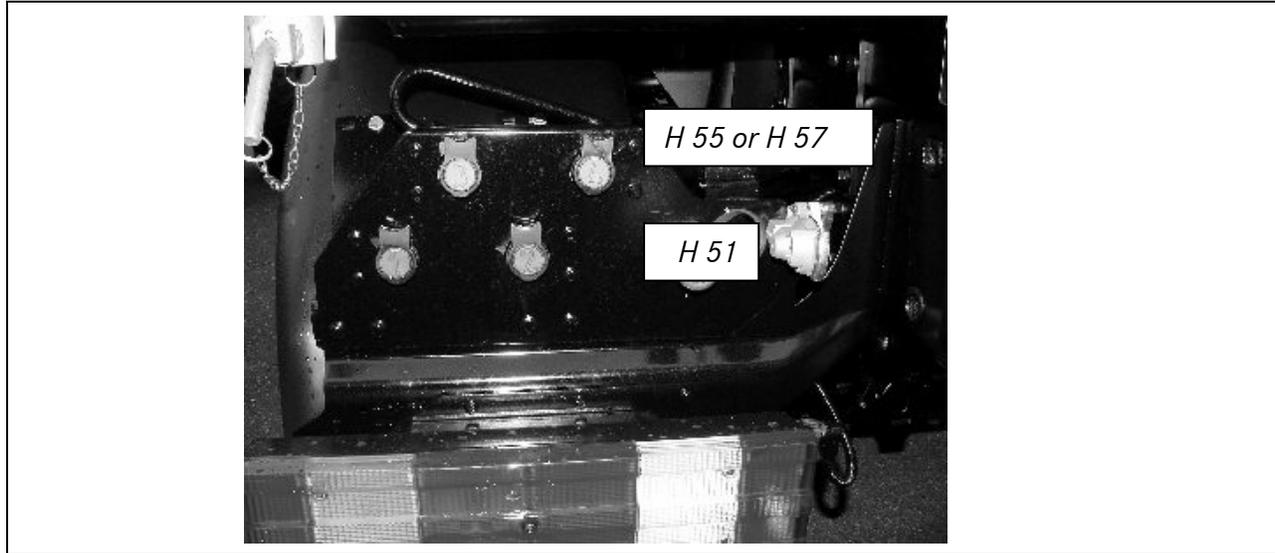
- ❖ Telescopic cylinders for tilting of platform bodies P27, P40 and for body subframe P60
- ❖ Connector at rear of valve 2 (connector 3) or valve 3 (connector 5)
- ❖ Changeover valve located at the rear of the vehicle (left), beneath platform
- ❖ Warning light (J48) on instrument panel is required

Notes/Product advantages:

- ❖ Due to changeover valve, either platform tilting function or plug connector can be selected
- ❖ It is not permitted to drive with the body tilted.
- ❖ For snow plow operation, tilting function on valve 2 must be locked
- ❖ Telescopic cylinder can also be loosely delivered as code H44

HYDRAULIC CONNECTION REAR

H51, H55, H57



Technical description:

- ❖ Two connections with quick couplings each, size HS 12
- ❖ Double-acting connection (can also be utilized as single-acting connection):
 - H 51 2lines at valve 1
 - H 55 4lines at valve 1 and 2
 - H 57 4lines at valve 2 and 3
- ❖ Assignment: Valve 1: Red; Connectors 1 & 2
 Valve 2: Green; Connectors 3 & 4
 Valve 3: Yellow; Connectors 5 & 6

Notes/Product advantages:

- ❖ Connections for rear-mounted implement operation and/or tilting function (H55, H57), trailer tilting device
- ❖ Front and rear implements must not be connected to the same valve

**PRESSURE LINE REAR FOR
DUAL CIRCUIT HYDRAULIC**

H58



Only in combination with H59 + H06/H08

Technical description:

- ❖ Pressure line for circuit II relocated to the rear
- ❖ Quick coupling, HS 20, available as a plug

Notes/Product advantages:

- ❖ For hydraulic drive of rear-mounted implements (hydraulic motor)
- ❖ No long lines starting from the vehicle center (H68): protection against damage
- ❖ Oil backflow via separate return line (H59)

SEPARATE HYDRAULIC RETURN LINE REAR

H59



Only in combination with H12/H13/H14

Technical description:

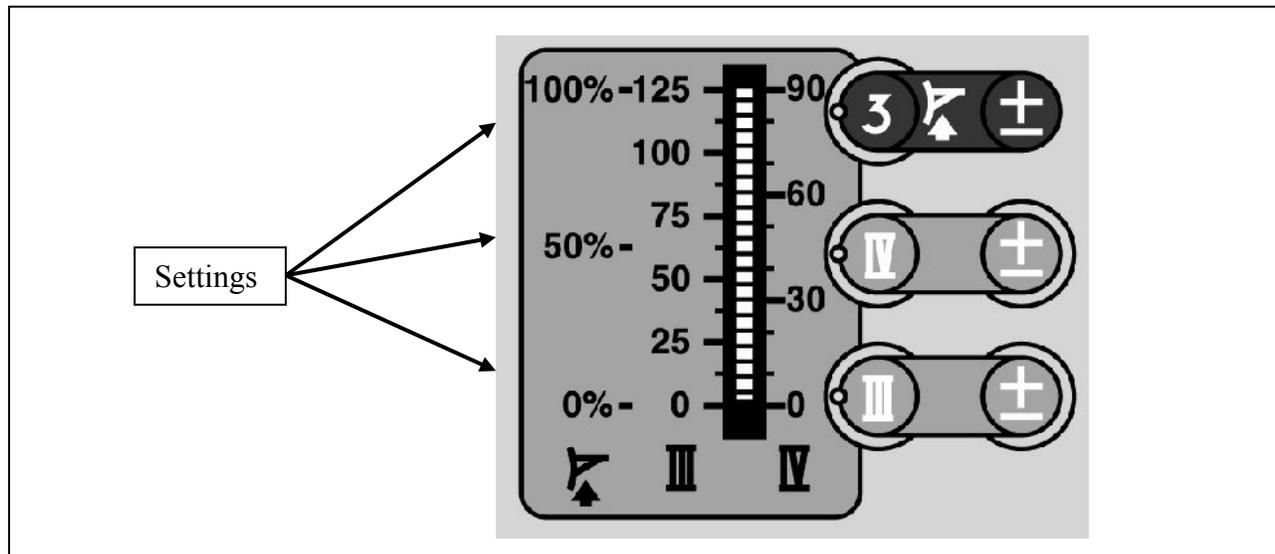
- ❖ Hydraulic line for pressure-less, fast and direct oil return from implement to the oil tank
- ❖ Connection, size HS 20, available as a sleeve

Notes/Product advantages:

- ❖ Utilization: drive of hydraulic motors and other continuous consumers
- ❖ Overload prevention

SNOW PLOW WEIGHT TRANSFER

H61



Only in combination with H08

Technical description:

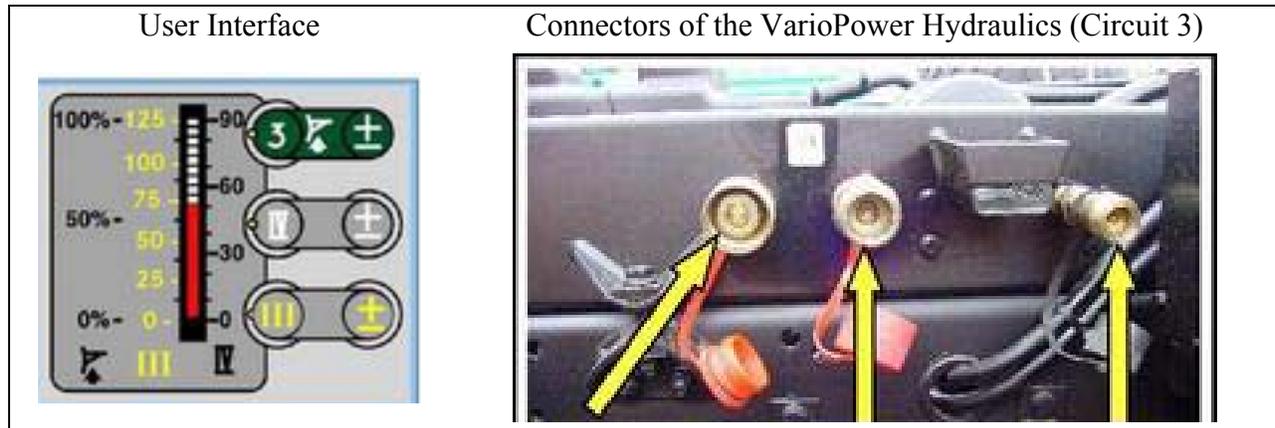
- ❖ Variable pressure control valve, plugged into valve 2, connector 3
- ❖ Setting of pressure relief in lifting cylinder of snow plow when moving joystick:
 - 100% = full pressure in lifting cylinder, plow raised
 - 40% = pressure minimized by 40% (of rated pressure)
 - 0% = no pressure in lifting cylinder, full weight of plow is resting on the road (floating position)

Notes/Product advantages:

- ❖ Precise adjustment of snow plow pressure level
- ❖ Reduced pressure level means:
- ❖ Reduced wear on scraper strips
- ❖ Low noise level
- ❖ Increased traction at front axle
- ❖ Improved steering and cornering
- ❖ Also available for front sweepers and mowers (reduced wear)

VARIOPower CLOSED CIRCUIT (CIRCUIT 3)

H63



Only in combination with N05.

Technical description:

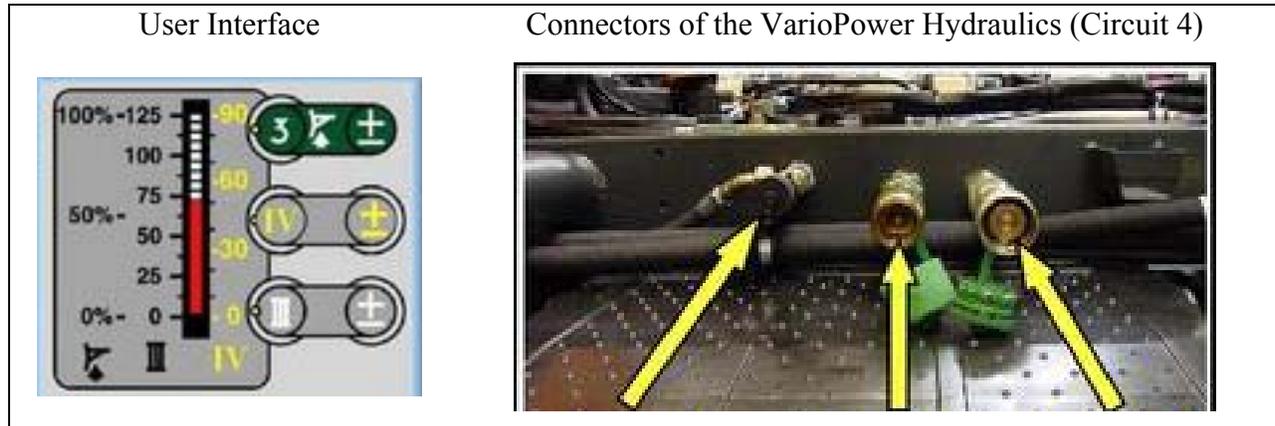
- ❖ Completely independent hydraulic system (own oil tank, pump, cooler etc.)
- ❖ Integrated in high platform subframe
- ❖ Driven via life PTO (N05): Activation via electro pneumatic dog clutch when engine is off
- ❖ Axial-variable-delivery pistol pump
- ❖ Power output max. 83.8 hp / 62.5 kW
- ❖ Maximum flow rate at rated engine speed 1,800 to 1,900 rpm: 33.02 gal/min at 4,351 psi (125 l/min at 300 bar)

Notes/Product advantages:

- ❖ Drive of continuous consumers (oil motors) with high requirement of energy, e.g. suction sweepers, verge mowers, front and rear mounted boom mowers, etc.
- ❖ Variable driving and working speeds and different gears drivable at constant hydraulically volume flow

VARIOPOWER OPEN CIRCUIT (CIRCUIT 4)

H64



Only in combination with N05.

Technical description:

- ❖ Completely independent hydraulic system (own oil tank, pump, cooler etc.)
- ❖ Integrated in high platform subframe
- ❖ Driven via life PTO (N05): Activation via electro pneumatic dog clutch when engine is off
- ❖ Axial-variable-delivery pistol pump
- ❖ Power output max. 57 hp / 42 kW
- ❖ Maximum flow rate at rated engine speed 1,800 to 1,900 rpm: 23.78 gal/min at 4,061 psi (90 l/min at 280 bar)

Notes/Product advantages:

- ❖ Drive of continuous consumers (oil motors) with medium to high requirement of energy, e.g. suction sweepers, verge mowers, front and rear mounted boom mowers, etc.
- ❖ Variable driving and working speeds and different gears drivable at constant hydraulically volume flow
- ❖ Extraction of large oil volumes possible for cylinders possible (cranes etc.)

ADDITIONAL HYDRAULIC PRESSURE LINE

H68



Only in combination with H06/H08

Technical description:

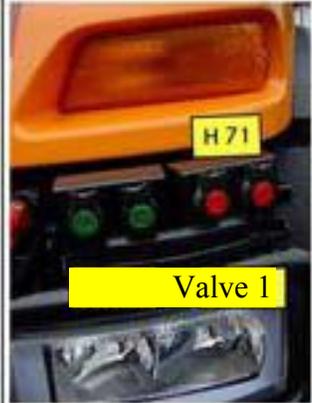
- ❖ Pressure and return connection for circuit II behind the cab (right), above fuel tank
- ❖ Pressure connection as quick coupling, HS 20, will be available as a plug
- ❖ Return line as a sleeve, size HS 20

Notes/Product advantages:

- ❖ Easily reachable for connecting spreaders
- ❖ Human error can be avoided (plug and sleeve connection)
- ❖ Easy coupling (on and off)

**HYDRAULIC CONNECTION FRONT,
 2 LINES AT VALVE 1/3**

H71 / H73

Code H71: 2 Lines at Valve 1	Code H73: 2 Lines at Valve 3
	

Only in combination with H12/H13/H14

Technical description:

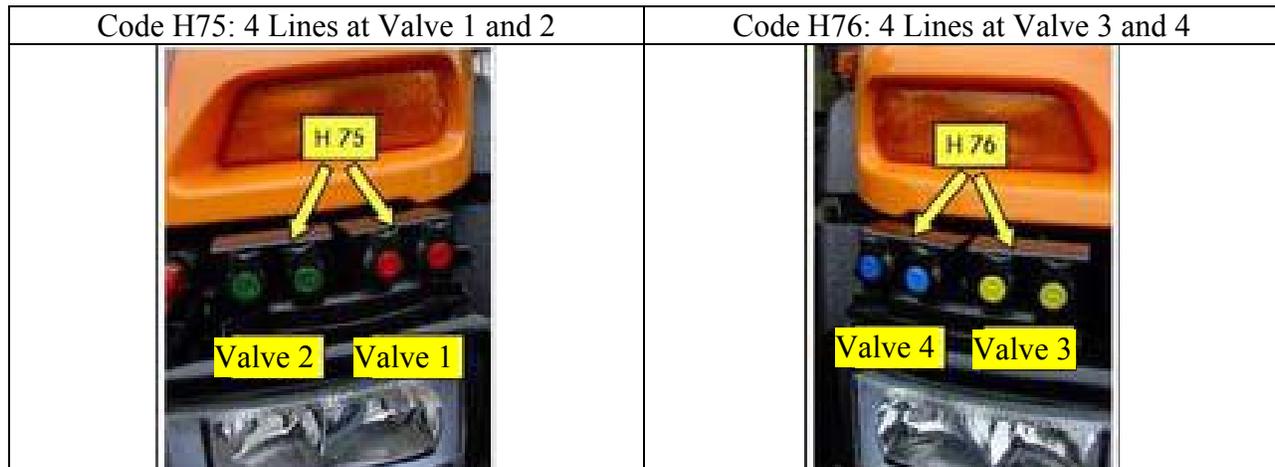
- ❖ 2 connections with quick couplings each, size HS12
- ❖ Double-acting connection (can also be used as single-acting connection)
- ❖ H71: 2 Lines at valve 1
- ❖ H73: 2 Lines at valve 3
- ❖ Assignment: Valve 1: Red; Connectors 1 & 2
 Valve 3: Yellow; Connectors 5 & 6

Notes/Product advantages:

- ❖ Connections for front-mounted implement operation (above bumper bar)
- ❖ Easily reachable
- ❖ Front- and rear-mounted implements must not be driven at the same valve

**HYDRAULIC CONNECTION FRONT,
 4 LINES AT VALVE 1 & 2 / 3 & 4**

H75 / H76



Only in combination with H12/H13/H14

Technical description:

- ❖ 2 connections with quick couplings each, size HS12
- ❖ Double-acting connection (can also be used as single-acting connection)
- ❖ H71: 2 Lines at valve 1
- ❖ H73: 2 Lines at valve 3
- ❖ Assignment:

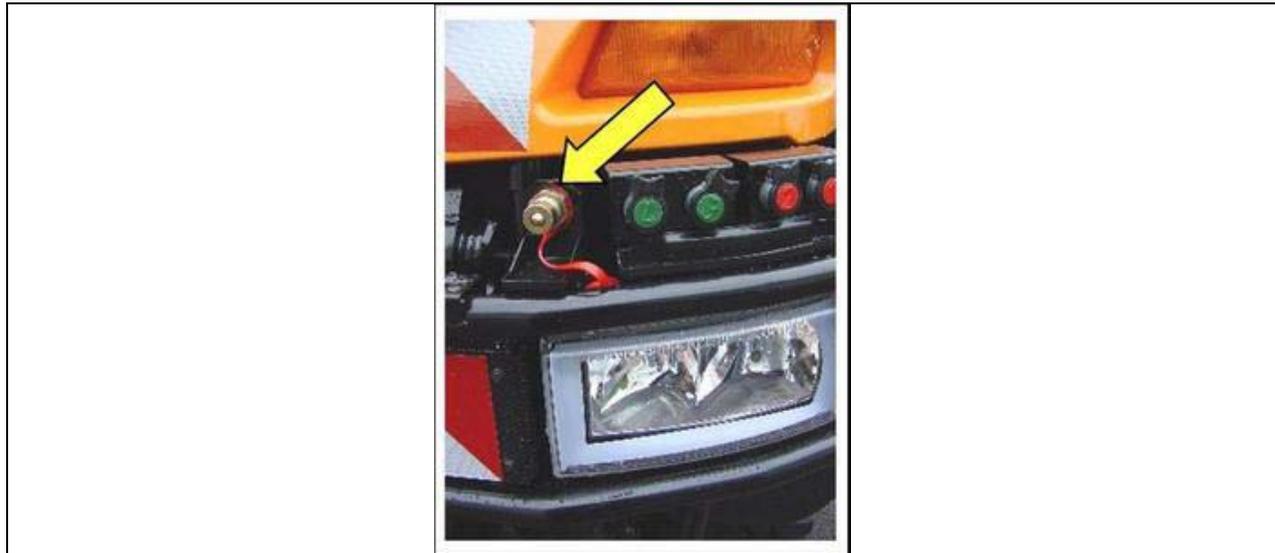
Valve 1:	Red;	Connectors 1 & 2
Valve 2:	Green;	Connectors 3 & 4
Valve 3:	Yellow;	Connectors 5 & 6
Valve 4:	Blue;	Connectors 7 & 8

Notes/Product advantages:

- ❖ Connections for front-mounted implement operation (above bumper bar)
- ❖ Easily reachable
- ❖ Front- and rear-mounted implements must not be driven at the same valve

**PRESSURE LINE FRONT FOR
DUAL CIRCUIT HYDRAULIC**

H78



Only in combination with H79 + H06/H08

Technical description:

- ❖ Pressure line for circuit II relocated to the front
- ❖ Quick coupling, size HS 20, available as a plug

Notes/Product advantages:

- ❖ For hydraulic driving of front-mounted implements (hydraulic motor)
- ❖ No long lines starting from the vehicle center (H68): protection against damage
- ❖ Oil backflow via separate return line (H79)

SEPARATE RETURN LINE, FRONT

H79



Only in combination with H12/H13/H14

Technical description:

- ❖ Hydraulic line for pressure-less, fast and direct oil return from implement to the oil tank
- ❖ Connection, size HS 20, available as a sleeve

Notes/Product advantages:

- ❖ Utilization: drive of hydraulic motors and other continuous consumers (as return line)
- ❖ Overload prevention, for example during snow plough operation etc.

FLUSH FACE COUPLERS (STANDARD)

H85



Technical description:

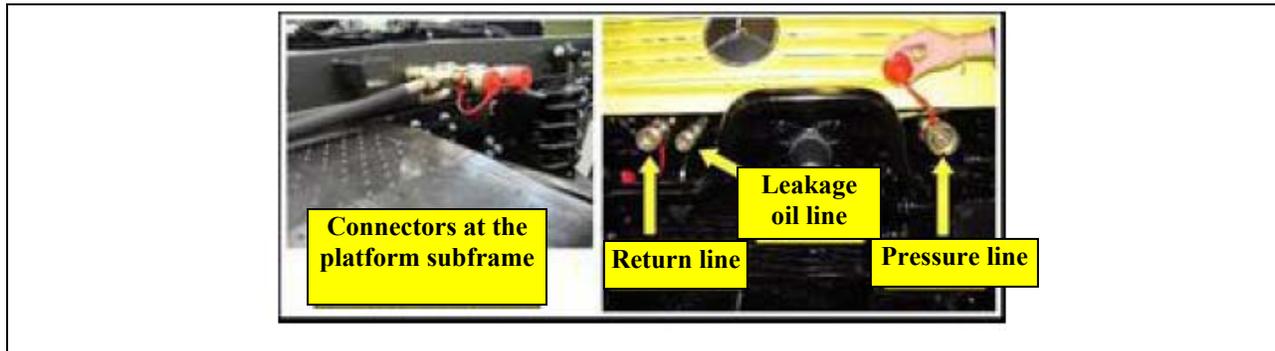
- ❖ Couplers according to ISO 16028
- ❖ Circuit 1: couplers (female); size: 12.5 (1/2")
- ❖ Circuit 2: pressure line (plug, male); size: 19 (3/4")
Separate return line (coupler, female); size: 19 (3/4")

Notes/Product advantages:

- ❖ Less oil leakage during connecting / disconnecting of implements
- ❖ Avoiding of bubbles in the hydraulic system
- ❖ Easy handling

FRONT CONNECTORS FOR POWER HYDRAULICS, CIRCUIT 3

H93



Technical description:

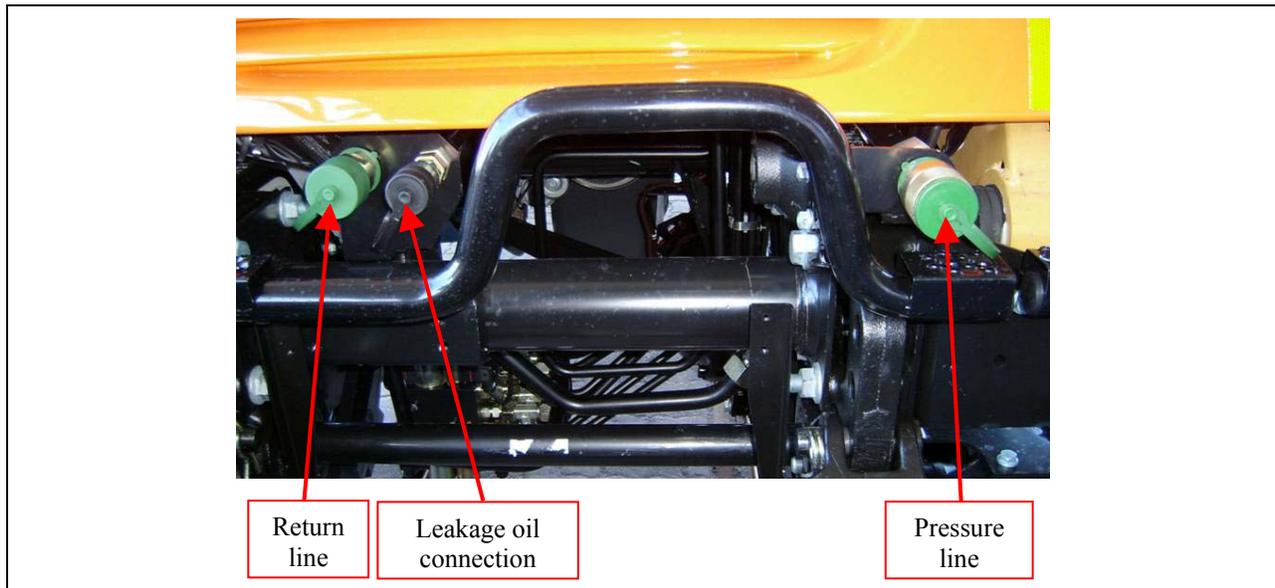
- ❖ Pressure line: Screwed joint, plug (HS20)
- ❖ Return line: Screwed joint, socket (HS20)
- ❖ Leakage oil connection: Screwed joint, socket (HS10)
- ❖ Implements can be connected either to the front or to the side connectors.
- ❖ Connecting to both at the same time is not possible.

Notes/Product advantages:

- ❖ Front mounted implements can be connected to the power hydraulic circuit 4 without routing hoses to the rear.
- ❖ Different couplers avoid faulty hook-up of implements
- ❖ Simple mounting / demounting of implements due to screwed couplers

FRONT CONNECTORS FOR POWER HYDRAULICS, CIRCUIT 4

H94



Technical description:

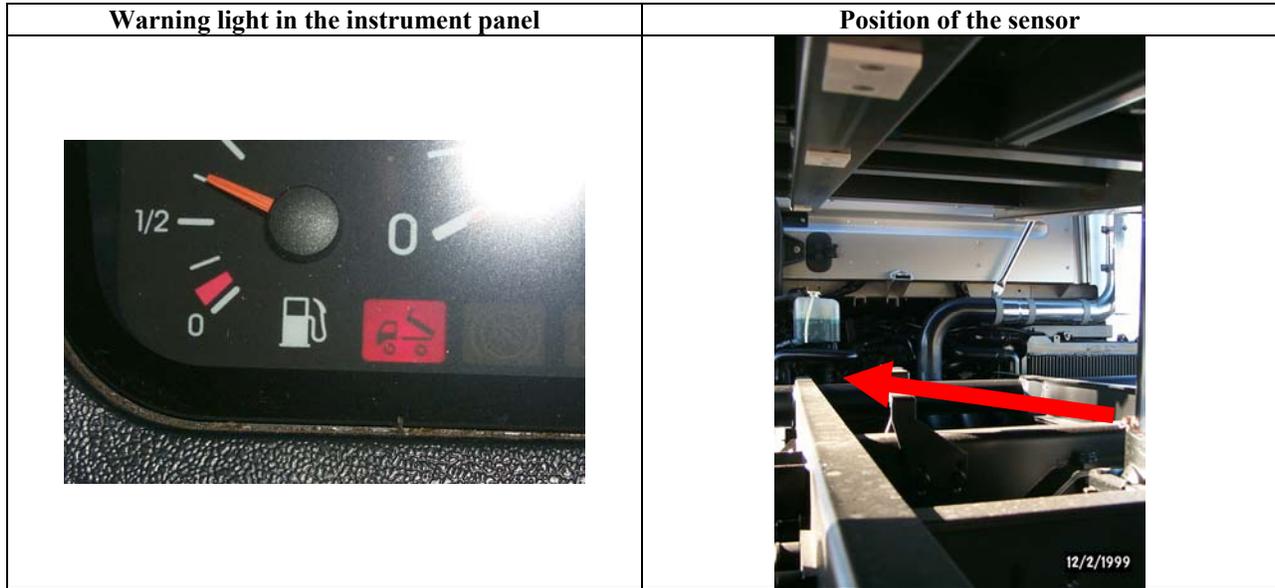
- ❖ Pressure line: Screwed joint, plug (HS20)
- ❖ Return line: Screwed joint, socket (HS20)
- ❖ Leakage oil connection: Screwed joint, socket (HS10)
- ❖ Implements can be connected either to the front or to the side connectors.
- ❖ Connecting to both at the same time is not possible.

Notes/Product advantages:

- ❖ Front mounted implements can be connected to the power hydraulic circuit 4 without routing hoses to the rear.
- ❖ Different couplers avoid faulty hook-up of implements
- ❖ Simple mounting / demounting of implements due to screwed couplers

WARNING LIGHT FOR TIP CYLINDER

J48



Technical description:

- ❖ Warning light displays when tipper is moved out of the ball points

Notes/Product advantages

- ❖ Driving with tilted tipper is not allowed
- ❖ Warning light is required in connection with tip cylinder

DAYTIME RUNNING LIGHTS

L07



Technical description:

- ❖ Headlights are activated by starting vehicle

Notes/Product advantages:

- ❖ Mandatory in Canada
- ❖ Available for U.S.

HIGH MOUNTED HEADLIGHTS

L47



Technical description:

- ❖ Additional headlights and turning signals raised in front of windshield

Notes/Product advantages:

- ❖ Only one pair of headlights operates at a time
- ❖ Suitable for front implements which cover standard headlights

**PREPARATION KIT FOR
ROOF-MOUNTED LIGHT BAR**

L49



Example for a roof-mounted light bar. Light bar is not available ex factory!

Technical description:

- ❖ Preparation kit consists of a switch in the center console and an interface behind the drivers seat for connecting the light bar wiring
- ❖ Wiring between roof-mounted light bar and socket behind the drivers seat should be provided by the light bar supplier
- ❖ For further information please see the Unimog Body & Implement Mounting Guidelines

Notes/Product advantages:

- ❖ Easy and simple connection of a light bar to the electrical system of the Unimog

**SUPPORT FOR ROTATING BEACON,
ROAD SIDE MOUNTED**

L58



Technical description:

- ❖ Support, switch and wiring for rotating beacon light on left side of the roof
- ❖ Extendable support (can be raised up to 15.75 inch / 400 mm)

Notes/Product advantages:

- ❖ Due the extendable supports the beacon lights can be seen with high bodies
- ❖ Beacon light supports can also be used as supports for roof-mounted devices

**SUPPORT FOR ROTATING BEACON,
ROAD AND CURB SIDE MOUNTED**

L59



Technical description:

- ❖ Support, switch and wiring for rotating beacon light on road and curb side of the roof
- ❖ Extendable support (can be raised up to 15.75 inch / 400 mm)

Notes/Product advantages:

- ❖ Due the extendable supports the beacon lights can be seen with high bodies
- ❖ Beacon light supports can also be used as supports for roof-mounted devices

HIGH OUTPUT ALTERNATOR, 270AMPS

M37



Technical description:

- ❖ 270 amp heavy duty alternator
- ❖ Remote mounted rectifier

Notes/Product advantages:

- ❖ For implements with electricity demand
- ❖ For wintertime road maintenance in cold regions
- ❖ For fire - fighting and ambulance use with additional head- and warning lights
- ❖ Mandatory for fire – fighting applications
- ❖ Recommended in cold climate conditions

ENGINE PRE-HEATER, ELECTRICAL

M54



Technical description:

- ❖ Electrical block heater in engine cooling system
- ❖ Requires external electrical source; 110 volts
- ❖ Power 1500 Watts

Notes/Product advantages:

- ❖ Thermostatically controlled
- ❖ Improving of start performance at low temperatures
- ❖ Quick heating of cab

FUEL WATER SEPARATOR, WITH FUEL HEATER

M55



Technical description:

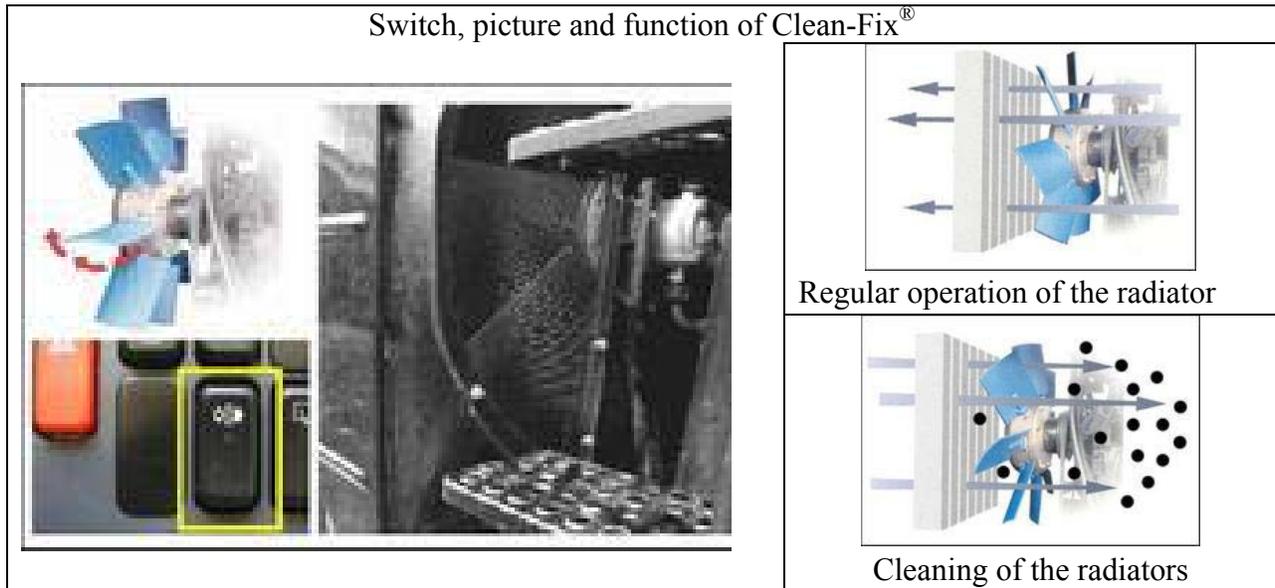
- ❖ Additional fuel filter , water separator and electric fuel heater

Notes/Product advantages:

- ❖ Important for use of low quality fuel
- ❖ Increases life of main fuel filter
- ❖ Protection of injection system
- ❖ Vehicle is useable at very low temperatures

CLEAN-FIX® COOLING SYSTEM FOR
DIRT INTENSIVE APPLICATIONS

M74



Technical description:

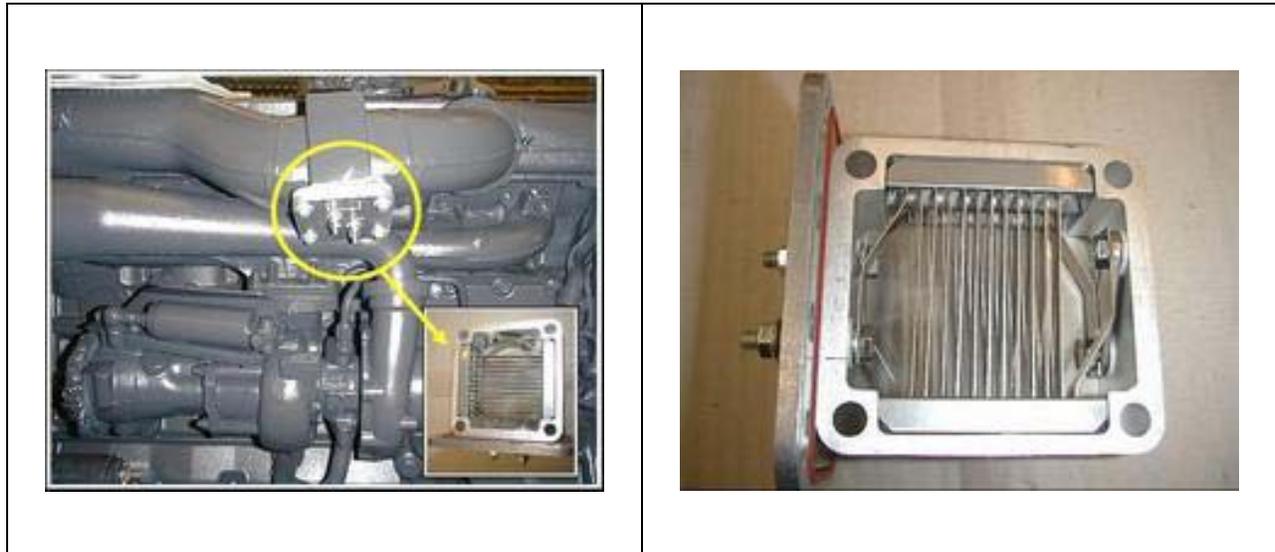
- ❖ Cleaning of the coolant radiator and the intercooler (left hand side) during regular vehicle operation
- ❖ Cleaning time between 5 and 10sec.
- ❖ Fan blades can be pneumatically turned, reversing of the blades via spring force
- ❖ Electrically activated via switch in the cab

Notes/Product advantages:

- ❖ Cleaning process during operating of the vehicle and the implement
- ❖ Exiting of the cab not necessary
- ❖ Always 100% cooling power available
- ❖ Utilization: Dirt-intensive applications, e.g. mowers, sweepers etc.

GRID HEATER AT AIR INTAKE

M89



Technical description:

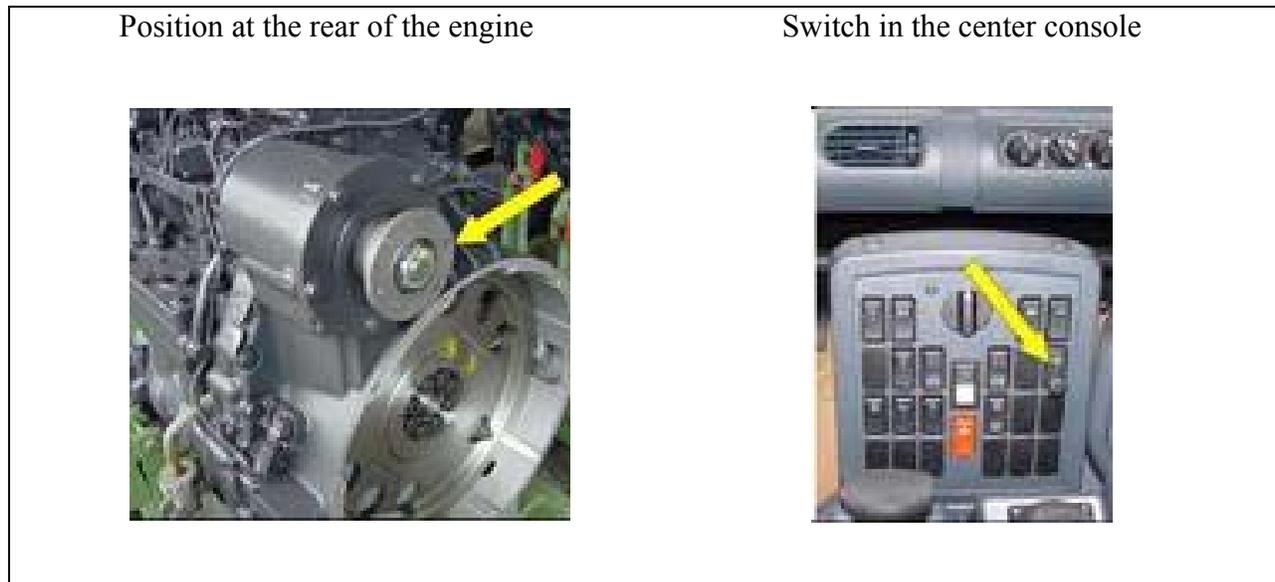
- ❖ Heating system to warm up intake air to improve starting under cold conditions
- ❖ Enables starting under -13°F (-25 °C)

Notes/Product advantages:

- ❖ Improves start performance at cold conditions
- ❖ Operated by vehicle batteries
- ❖ Cold operations should consider coolant heater (F43) and block heater (M54)

ENGINE MOUNTED REAR PTO

N05



Technical description:

- ❖ Flange at rear of engine
- ❖ Independent of gear change in manual transmission
- ❖ Electro-pneumatically actuated dog clutch
- ❖ Connecting of universal shafts or commercially available
- ❖ Components with high power requirement
- ❖ Can only be activated when engine is off via center console mounted switch
- ❖ Speed at rated engine speed of 2,220 rpm: 2,356 rpm (ratio: 0.933)
- ❖ Direction of travel (viewed in direction of travel): Counter clockwise
- ❖ Maximum torque delivered (continuous): 442.5 lb·ft / 600 Nm
- ❖ Maximum continuous power output: 185 hp / 138 kW

Notes/Product advantages:

- ❖ Connection of universal shafts or commercially available components with high power requirement
- ❖ No interruption of the power flow over the entire speed range
- ❖ Easy to operate
- ❖ Utilization: Drive of water / hydraulic pumps by use of vibration damper

FRONT PTO

N08



Technical description:

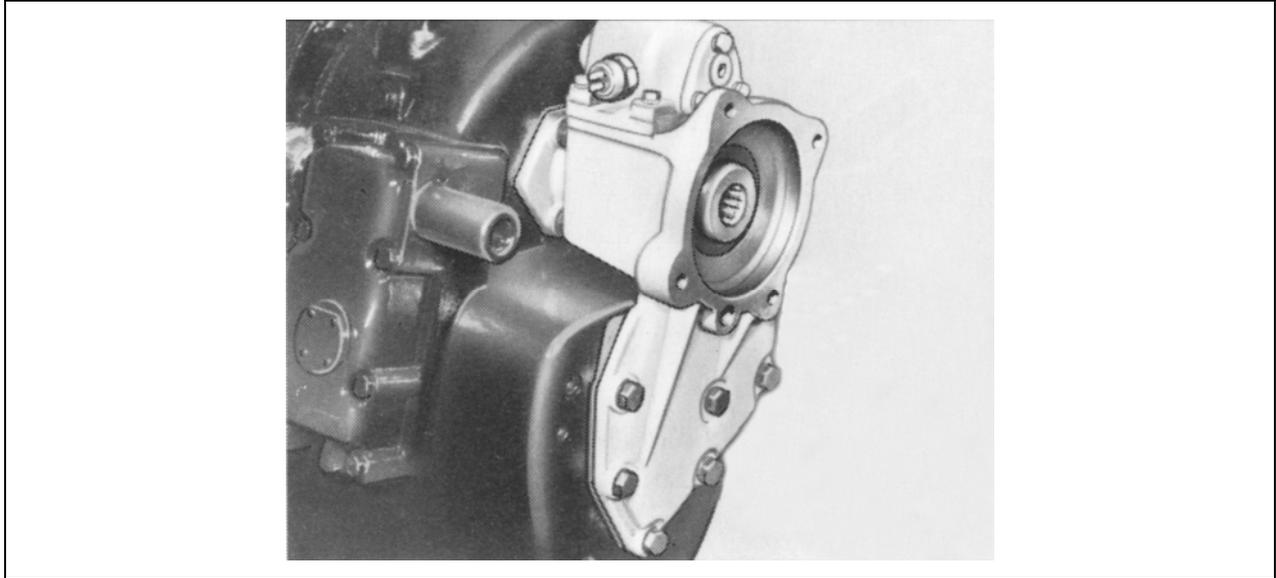
- ❖ Direct, mechanical drive of the drive train by engine (crankshaft)
- ❖ Max. 201 hp / 150 kW can be transferred
- ❖ Single-step mechanical transmission
- ❖ PTO stub 1 3/4 inch 6-splined shaft
- ❖ Flexible mounting with clutch to engine
- ❖ Output shaft rpm displayed in cab
- ❖ Shaft speed range (adjustable): 500 to 1,000 rpm
- ❖ Maximum torque delivered (intermittent): 1,030 lb·ft / 1,400 Nm
- ❖ Direction of travel (viewed in direction of travel): Clockwise

Notes/Product advantages:

- ❖ Drive of all PTO-driven front-mounted implements, such as chipper, sweeper, etc
- ❖ Any PTO speed can be simply and accurately set
- ❖ Suitable for high torque transfer
- ❖ High level of efficiency, smooth running and long life

FAST PTO AT TRANSMISSION

N16



Technical description:

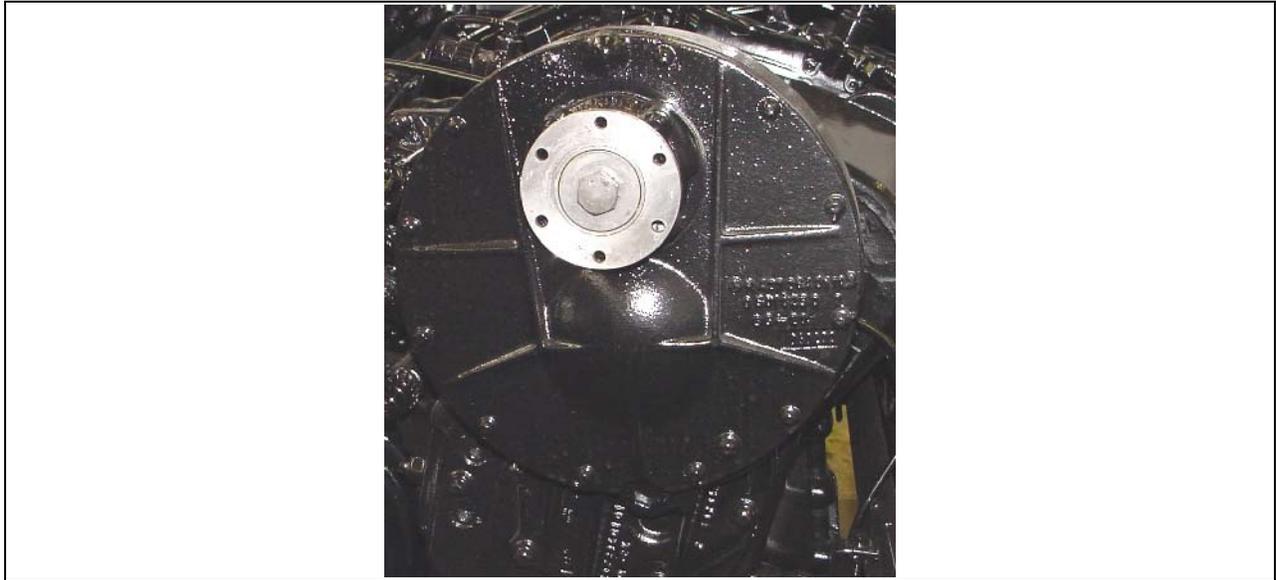
- ❖ Splined coupling on transmission, ratio 1:1
- ❖ N16 is DIN standard
- ❖ Direction of rotation counter clockwise, view in direction of travel
- ❖ Electro-pneumatically actuated dog clutch with switch in center console
- ❖ Rated torque: 479 lb·ft / 650 Nm
- ❖ Rated power output: 201 hp / 150 kW

Notes/Product advantages:

- ❖ Use of commercially available hydraulic pumps
- ❖ Can be activated and deactivated when vehicle stands still and clutch is depressed
- ❖ Transmission dependent, drive is directly coupled to the transmission input shaft (power flow is interrupted when clutch is engaged)
- ❖ Shifting gear while PTO is engaged is not possible

VERY FAST PTO AT TRANSMISSION

N19



Technical description:

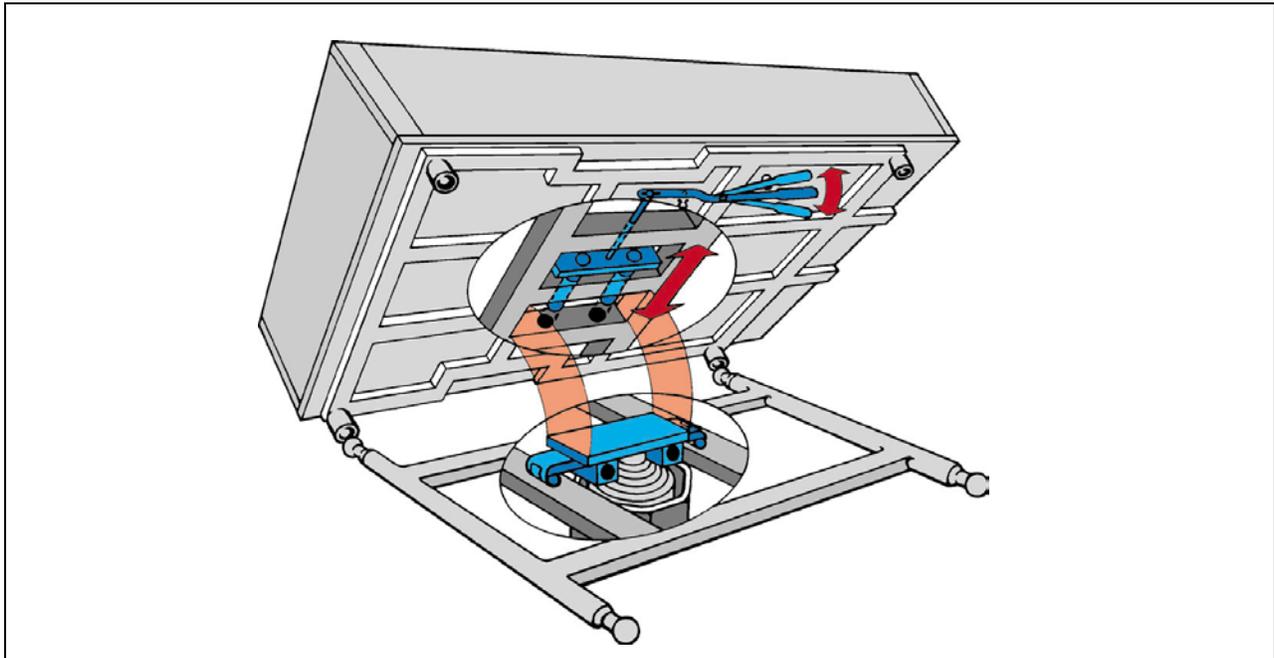
- ❖ Speed at rated engine speed of 2,200 rpm: 3,607 rpm (ratio 0.61)
- ❖ Standardized flange on transmission
- ❖ Direction of rotation (viewed in direction of travel): Clockwise
- ❖ Rated torque: 236 lb·ft / 320 Nm
- ❖ Rated power output: 161 hp / 120 kW
- ❖ Electro-pneumatically actuated dog clutch operated via switch in center console

Notes/Product advantages:

- ❖ Connection of commercially available fire extinguishing pumps and similar equipment
- ❖ Can be activated and deactivated when vehicle stands still and clutch is depressed
- ❖ Transmission dependent, drive is directly coupled to the transmission input shaft (power flow is interrupted when clutch is engaged)
- ❖ Shifting gear while PTO is engaged is not possible

QUICK RELEASE SYSTEM
FOR TIPPING CYLINDER

P01



Technical description:

- ❖ Disconnecting the tipping cylinder from the platform with a lever underneath the platform

Notes/Product advantages:

- ❖ Quick and easy removal of the tipping cylinder for demounting of the platform
- ❖ Reduce risk during removal of the cylinder and avoid personal injuries and damages to the vehicle

PLATFORM, TIPPER BODY

P27, P40



Code P27 for 132" wb and code P40 for 154" wb

Technical description:

- ❖ Aluminum side and rear panels; steel forward panel and floor
- ❖ P27: 8.75' x 7.3' x 15.8"
- ❖ P40: 11.3' x 7.3' x 15.8"
- ❖ Forward wall 19.7" high
- ❖ Corner posts, side and rear panels removable to create flat bed

Notes/Product advantages:

- ❖ Low weight at a high stability, high payload
- ❖ Easily removable using a crane or fork-lift
- ❖ Strong, rigid side panels even when rear wall removed
- ❖ Platform can tilt to left, right or rear
- ❖ Code P27 as loose delivered platform available for long wheelbase vehicles, e.g. for mounting on implement subframes like cranes

PLATFORM SUBFRAME FOR BODY INSTALLATION

P60



Technical description:

- ❖ Subframe with ball points to mount body or tipper bed
- ❖ Quick-interchangeable bodies and implements can be mounted due the ball points

Notes/Product advantages:

- ❖ Light weight mounting structure for mounting bodies such as spreader, suction sweeper, fire bodies etc.
- ❖ Facilitates quick change of body

ONE SET LOOSE TIPPING WELLS AND BOLTS

P82



Technical description:

- ❖ Assemblage of fasteners to be used for mounting additional body to subframe (code P60)

Notes/Product advantages:

- ❖ Allows custom body to mount to Unimog subframe
- ❖ Provides for quick body replacement

TOW HITCH, PREMIER 240

Q20



Technical description:

- ❖ Gross Trailer Weight: 45,000 lbs.
- ❖ Max. Tongue Weight: 6,000 lbs.
- ❖ Ultimate Latch Capacity: 320,000 lbs.
- ❖ Min. Eye Opening: 3 2 1/8 in.

Notes/Product advantages:

- ❖ This coupling is designed for towing under normal conditions within the stated gross trailer weight.
- ❖ Should also consider trailer air brake package (B42).
- ❖ 7 way electrical connection at end of frame is standard

TOW HITCH, PREMIER 135NT

Q21



Technical description:

- ❖ Swivel hitch Premier 135 NT
- ❖ Gross Trailer Weight: 30,000 lbs.
- ❖ Max. Tongue Weight: 6,000 lbs.
- ❖ Minimum eye opening: 2 1/16 in.
- ❖ Ultimate latch capacity: 20,000 lbs

Notes/Product advantages:

- ❖ This coupling is designed for towing under normal conditions within the stated gross trailer weight
- ❖ Should consider trailer air brake package (B42).
- ❖ 7 way electrical at the end of frame is standard.

TIRES

Rxx

		
R34 / R54: Michelin XZL 395/85R20	R40: Michelin XDN 315/80R22.5 (standard)	R41: Michelin XZY 385/65R22.5
		
R42: Continental AC70 445/65R22.5	R61: Michelin XM47 447/70R24	

Code	Description
R34	Rims 10.00V-20 for 395/85R20 tubeless tires, track 71.97 in / 1,828 mm, incl. rear mud guards, not icw. codes R40 / R41 / R42 / R52 / R54 / R61, CTIS possible
R40	Standard rims 22.5x9.00 for 315/80R22.5, track 71.97 in / 1,828 mm, incl. rear mud guards, not icw. codes A30 + A31 + R34 / R41 / R42 / R52 / R54 / R61 + X18
R41	Rims 22.5x11.75 for 385/65R22.5 tubeless tires, track 75.20 in / 1,910 mm, incl. rear mud guards, not icw. codes A30 + A31 + R34 / R40 / R42 / R52 / R54 / R61
R42	Rims 22.5x14.00 for tires 445/65R22.5, track 72.42 in / 1,842 mm, incl. rear mud guards, sheet metal and rubber, not icw. codes R34 / R40 / R41 / R52 / R54 / R61, no use of snow chains possible, CTIS possible
R54	Accuride rim for 395/85R20, tubeless tires, track 71.97 in / 1,828 mm, incl. rear mud guards, not icw. codes A30 + A31 + R34 / R40 / R41 / R42 / R52 / R61, no CTIS possible
R61	Rims 13x24 for tires 445/70R24, tack 72.52 in / 1,842 mm, incl. rear mud guards sheet metal and rubber, not icw. codes R34 / R40 / R41 / R42 / R52 / R54 + X18, no use of snow chains possible, CTIS possible

AIR SUSPENDED DRIVER SEAT

S02



Technical description:

- ❖ Air-suspended driver seat; automatic weight adjustment from 110 pounds to 330 pounds
- ❖ 3 point safety belt
- ❖ Adjustable seat back, for/aft seat travel, bottom cushion angle adjustment
- ❖ Separate adjustable head rest

Notes/Product advantages:

- ❖ Adjustable shock absorbers for off-road use
- ❖ Headrests for comfortable driving

AIR SUSPENDED PASSENGER SEAT

S10



Technical description:

- ❖ Air-suspended passenger seat; automatic weight adjustment from 110 pounds to 330 pounds
- ❖ 3 point safety belt
- ❖ Adjustable seat back, for/aft seat travel, adjustable seat cushion angle
- ❖ Separate adjustable head rest

Notes/Product advantages:

- ❖ Adjustable shock absorbers for off-road use
- ❖ Adjustable headrest for comfortable driving

TWIN PASSENGER SEAT

S12



Technical description:

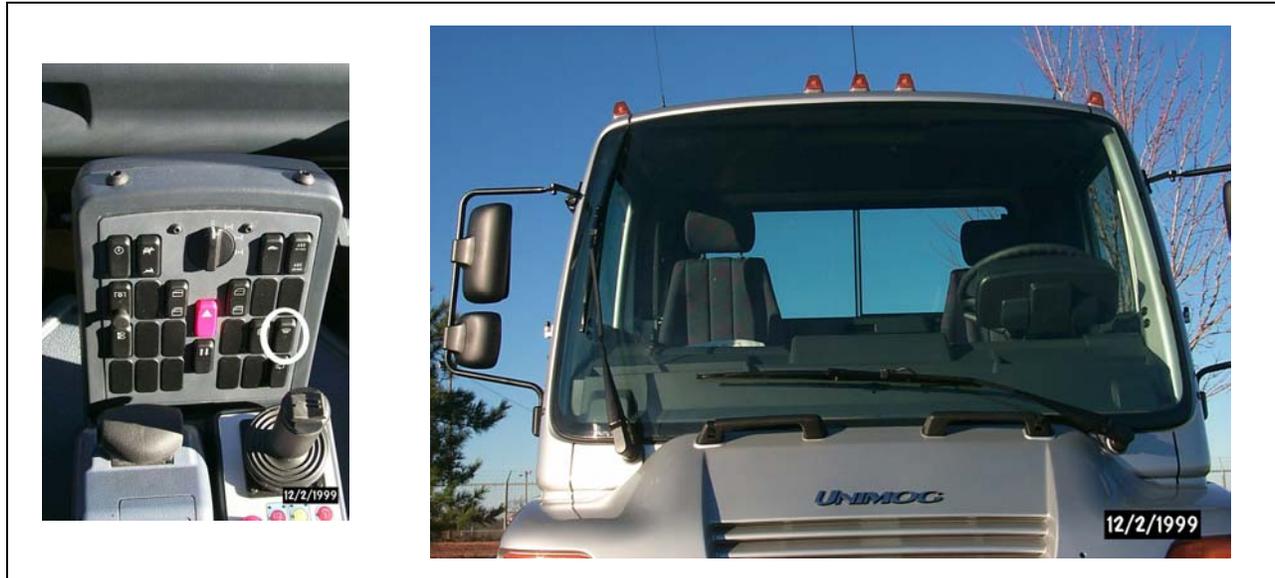
- ❖ For/aft adjustment
- ❖ 3 point safety belt for outer passenger; lap belt for inner passenger

Notes/Product advantages:

- ❖ Comfortable seats for 2 passengers even for long distance travel
- ❖ Allows 3 occupants in cab
- ❖ Center mounted grab handle located near inner passenger

HEAT-ABLE WINDSHIELD

S26



Technical description:

- ❖ Electrically heat-able windshield via center console mounted toggle switch
- ❖ Wire grid imbedded in windshield

Notes/Product advantages:

- ❖ Protection of freezing and fogging of windshield in wintertime
- ❖ No accumulation of snow in front of windshield
- ❖ Should be considered for operation under 0 degrees Fahrenheit

POWER WINDOWS

S39



Technical description:

- ❖ Electrically operated windows on driver and passenger sides

Notes/Product advantages:

- ❖ Comfortable window raising/lowering with switches in center console

SLIDING REAR WINDOW

S49



Technical description:

- ❖ Sliding rear window with inside latch

Notes/Product advantages:

- ❖ Improved air flow in cab
- ❖ Possibility to bring wires and hoses into the cab on a temporary basis

CONVEX MIRROR, RIGHT HAND SIDE

S82



Technical description:

- ❖ Wide angle mirror mounted on right side of vehicle
- ❖ Electrically adjustable

Notes/Product advantages:

- ❖ Good wide angle view to rear for view of trailers, implements and traffic

DOWNVIEW MIRROR

S83



Technical description:

- ❖ Wide angle mirror mounted over right hand door aiming down

Notes/Product advantages:

- ❖ Excellent view of pavement below right hand door
- ❖ Helps driving vehicle with limited space

CONVEX MIRROR, LEFT HAND SIDE

S86



Technical description:

- ❖ Wide angle rear mirror, mounted on left hand side of cab

Notes/Product advantages:

- ❖ Good back view on trailers, implements or traffic
- ❖ Should be specified for vehicles with VarioPilot (C50)

SPARE WHEELS

Txx

Code	Description
T34	Spare rim 10.00V-20 for 395/85R20, only icw. code R34
T40	Spare rim 22.5x9.00 for 315/80R22.5, only icw. code R40, not icw. X18
T41	Spare rim 22.5x11.75 for 385/65R22.5, only icw. code R41
T42	Spare rim 22.5x14.00 for 445/65R22.5, only icw. code R42
T54	Spare Accuride rim for 395/85R20, only icw. code R54
T61	Spare rim 13x24 for 445/70R24, only icw. code R61, not icw. X18

FENDERS

U82

Code	Description
U82	Wider fenders for use of snow chains in combination with code R34 & R54 (Limitation of steering angle necessary)

SPEED CONTROL

V97

Code	Description
V97	Speed limiter 70 mph, only icw. R34 / R54 and tires no. 987-K57-/80 (Michelin XZL)

PARAMETER SETTINGS

Wxx

Code	Description
W01	Engine stop function via implement plug-in socket, not icw. codes W02 / W03 / W04 / W05 / W06
W02	Engine start-stop function via implement plug-in socket, not icw. codes W01 / W03 / W04 / W05 / W06
W03	Variable speed control via implement plug-in socket, not icw. codes W01 / W02 / W04 / W05 / W06
W04	Variable speed function via implement plug-in socket, not icw. codes W01 / W02 / W03 / W05 / W06
W05	Variable speed function and engine start-stop via implement plug-in socket, not icw. codes W01 / W02 / W03 / W04 / W06
W06	Warning buzzer control on the instrument panel, not icw. codes W01 / W02 / W03 / W04 / W05

PARAMETER SETTINGS (CONTINUED)

WXX

Code	Description
W09	Limitation of engine speed to 900 rpm when transmission PTO is activated, only icw. codes N16 / N19, not icw. codes W10 / W11 / W12 / W13 / W14 / W15 / W16 / W17 / W18 / W19 / W20
W10	Limitation of engine speed to 1,000 rpm when transmission PTO is activated, only icw. codes N16 / N19, not icw. codes W09 / W11 / W12 / W13 / W14 / W15 / W16 / W17 / W18 / W19 / W20
W11	Limitation of engine speed to 1,100 rpm when transmission PTO is activated, only icw. codes N16 / N19, not icw. codes W09 / W10 / W12 / W13 / W14 / W15 / W16 / W17 / W18 / W19 / W20
W12	Limitation of engine speed to 1,200 rpm when transmission PTO is activated, only icw. codes N16 / N19, not icw. codes W09 / W10 / W11 / W13 / W14 / W15 / W16 / W17 / W18 / W19 / W20
W13	Limitation of engine speed to 1,300 rpm when transmission PTO is activated, only icw. codes N16 / N19, not icw. codes W09 / W10 / W11 / W12 / W14 / W15 / W16 / W17 / W18 / W19 / W20
W14	Limitation of engine speed to 1,400 rpm when transmission PTO is activated, only icw. codes N16 / N19, not icw. codes W09 / W10 / W11 / W12 / W13 / W15 / W16 / W17 / W18 / W19 / W20
W15	Limitation of engine speed to 1,500 rpm when transmission PTO is activated, only icw. codes N16 / N19, not icw. codes W09 / W10 / W11 / W12 / W13 / W14 / W16 / W17 / W18 / W19 / W20
W16	Limitation of engine speed to 1,600 rpm when transmission PTO is activated, only icw. codes N16 / N19, not icw. codes W09 / W10 / W11 / W12 / W13 / W14 / W15 / W17 / W18 / W19 / W20
W17	Limitation of engine speed to 1,700 rpm when transmission PTO is activated, only icw. codes N16 / N19, not icw. codes W09 / W10 / W11 / W12 / W13 / W14 / W15 / W16 / W18 / W19 / W20
W18	Limitation of engine speed to 1,800 rpm when transmission PTO is activated, only icw. codes N16 / N19, not icw. codes W09 / W10 / W11 / W12 / W13 / W14 / W15 / W16 / W17 / W19 / W20
W19	Limitation of engine speed to 1,900 rpm when transmission PTO is activated, only icw. codes N16 / N19, not icw. codes W09 / W10 / W11 / W12 / W13 / W14 / W15 / W16 / W17 / W18 / W20
W20	Limitation of engine speed to 2,000 rpm when transmission PTO is activated, only icw. codes N16 / N19, not icw. codes W09 / W10 / W11 / W12 / W13 / W14 / W15 / W16 / W17 / W18 / W19
W30	Electrical preparation for crane installation, only icw. code W05, not icw. code W35

PARAMETER SETTINGS (CONTINUED)

Wxx

Code	Description
W35	Electrical preparation for waste disposal vehicles, not icw. code W30
W41	Instrument display in km, °C and 24h
W95	Spanish as additional language at instrument display

MISCELLANEOUS

Xxx

Code	Description
X18	Increased GVW: 33,000 lbs, FAW: 15,900 lbs, RAW: 18,700 lbs; 70 mph and code X18 only icw. codes R34 + tires no. 987-K57-/80 (Michelin XZL)

ACCESSORIES

Yxx

Code	Description
Y31	Tire inflating hose with pressure gauge incl. compressed air connection lying outside
Y76	License plate holder at front end

COMPOUND CODES

Zxx

Code	Description
Z21	Special parts for Canada (only for Canada), only icw. codes L07 + W41
Z43	Parts for low temperatures; cold start ability down to -22°F / -30°C, low temp oil in steering system by factory: A001 989 24 03, add. 0.5 gal / 2 l anti-freeze fluid in cooling system, only icw. codes E44+F43+M54+M55+M89, codes M37 + S26 are recommended