MAXXUM 100
MAXXUM 110
MAXXUM 115
MAXXUM 120
MAXXUM 125
MAXXUM 130
MAXXUM 140

Tractor with/without Multicontroller

SERVICE MANUAL

Part number 84276322ANA
English
November 2010

CASE IH AGRICULTURE

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SERVICE MANUAL

MAXXUM 100 , MAXXUM 110 Multicontroller , MAXXUM 110 , MAXXUM 115 Multicontroller , MAXXUM 115 , MAXXUM 120 Multicontroller , MAXXUM 120 , MAXXUM 125 Multicontroller , MAXXUM 125 , MAXXUM 130 Multicontroller , MAXXUM 130 , MAXXUM 140 Multicontroller , MAXXUM 140

84276322A 31/05/2010

Contents

INTRODUCTION

Foreword

Technical Information

This manual has been produced by a new technical information system. This new system is designed to deliver technical information electronically through CD-ROM and in paper manuals. A coding system called ICE has been developed to link the technical information to other Product Support functions e.g. Warranty.

Technical information is written to support the maintenance and service of the functions or systems on a customers machine. When a customer has a concern on his machine it is usually because a function or system on his machine is not working at all, is not working efficiently, or is not responding correctly to his commands. When you refer to the technical information in this manual to resolve that customers concern, you will find all the information classified using the new ICE coding, according to the functions or systems on that machine. Once you have located the technical information for that function or system then you will find all the mechanical, electrical or hydraulic devices, components, assemblies and sub assemblies for that function or system. You will also find all the types of information that have been written for that function or system, the technical data (specifications), the functional data (how it works), the diagnostic data (fault codes and troubleshooting) and the service data (remove, install adjust, etc.).

By integrating this new ICE coding into technical information , you will be able to search and retrieve just the right piece of technical information you need to resolve that customers concern on his machine. This is made possible by attaching 3 categories to each piece of technical information during the authoring process.

The first category is the Location, the second category is the Information Type and the third category is the Product:

- LOCATION - is the component or function on the machine, that the piece of technical information is going to describe e.g. Fuel tank.
- INFORMATION TYPE - is the piece of technical information that has been written for a particular component or function on the machine e.g. Capacity would be a type of Technical Data that would describe the amount of fuel held by the Fuel tank.
- PRODUCT - is the model that the piece of technical information is written for.

Every piece of technical information will have those 3 categories attached to it. You will be able to use any combination of those categories to find the right piece of technical information you need to resolve that customers concern on his machine.

That information could be:

- the description of how to remove the cylinder head
- a table of specifications for a hydraulic pump
- a fault code
- a troubleshooting table
- a special tool

How to Use this Manual

This manual is divided into Sections. Each Section is then divided into Chapters. Contents pages are included at the beginning of the manual, then inside every Section and inside every Chapter. An alphabetical Index is included at the end of a Chapter. Page number references are included for every piece of technical information listed in the Chapter Contents or Chapter Index.

Each Chapter is divided into four Information types:

- Technical Data (specifications) for all the mechanical, electrical or hydraulic devices, components and, assemblies.
- Functional Data (how it works) for all the mechanical, electrical or hydraulic devices, components and assemblies.
- Diagnostic Data (fault codes, electrical and hydraulic troubleshooting) for all the mechanical, electrical or hydraulic devices, components and assemblies.
- Service data (remove disassembly, assemble, install) for all the mechanical, electrical or hydraulic devices, components and assemblies.

Sections

Sections are grouped according to the main functions or a systems on the machine. Each Section is identified by a letter A, B, C etc. The amount of Sections included in the manual will depend on the type and function of the machine that the manual is written for. Each Section has a Contents page listed in alphabetic/numeric order. This table illustrates which Sections could be included in a manual for a particular product.

	SECTION										
	A - Distribution Systems										
		B - Power Production									
			C - Power Train								
				D - Travelling							
					E - Body and Structure						
						F - Frame Positioning					
							G - Tool Positioning				
								H - Working Arm			
									J - Tools and Couplers		
										K - Crop Processing	
											L - Field Processing
PRODUCT											
Tractors	X	X	X	X	X	X		X	X		
Vehicles with working arms: backhoes, excavators, skid steers, ...	X	X	X	X	X	X	X	X	X		
Combines, forage harvesters, balers, ...	X	X	X	X	X	X	X	X	X	X	
Seeding, planting, floating, spraying equipment, ...	X	X	X	X	X	X	X		X		X
Mounted equipment and tools, ...					X	X	X		X		

This manual contains these Sections. The contents of each Section are explained over the following pages.

Contents

Section Contents

SECTION A, DISTRIBUTION SYSTEMS
This Section covers the main systems that interact with most of the functions of the product. It includes the central parts of the hydraulic, electrical, electronic, pneumatic, lighting and grease lubrication systems. The components that are dedicated to a specific function are listed in the Chapter where all the technical information for that function is included.

SECTION B, POWER PRODUCTION
This Section covers all the functions related to the production of power to move the machine and to drive various devices.

SECTION C, POWER TRAIN
This Section covers all the functions related to the transmission of power from the engine to the axles and to internal or external devices and additional Process Drive functions.

SECTION D, TRAVELLING
This Section covers all the functions related to moving the machine, including tracks, wheels, steering and braking. It covers all the axles both driven axles and non-driven axles, including any axle suspension.

SECTION E, BODY AND STRUCTURE
This Section covers all the main functions and systems related to the structure and body of the machine. Including the frame, the shields, the operator’s cab and the platform.

SECTION G, TOOL POSITIONING
This Section covers all the functions related to the final and/or automatic positioning of the tool once the tool is positioned using the Working Arm or the machine frame.

SECTION K, CROP PROCESSING
This Section covers all the functions related to crop processing.

SERVICE MANUAL

HYDRAULIC - PNEUMATIC - ELECTRICAL - ELECTRONIC SYSTEMS

MAXXUM 100 , MAXXUM 110 Multicontroller , MAXXUM 110 , MAXXUM 115 Multicontroller , MAXXUM 115 , MAXXUM 120 Multicontroller , MAXXUM 120 , MAXXUM 125 Multicontroller , MAXXUM 125 , MAXXUM 130 Multicontroller , MAXXUM 130 , MAXXUM 140 Multicontroller , MAXXUM 140

PRIMARY HYDRAULIC POWER SYSTEM - Static description

The hydraulic systems can be separated into the following circuits:-

High Pressure Circuit

Hydraulic Lift Assembly.
Remote Control Valves.
Trailer Brake (Where Fitted)
Suspended Front Axle.
Front Lift (Where fitted).

Steering Circuit

Steering Motor and Cylinders

Low Pressure Circuit

Independent Power Take Off (PTO).
Differential Lock
Front Wheel Drive engagement
Transmission clutch and synchroniser engagement
Creeper engagement (Where fitted)
Front PTO (Where fitted)
50 kph engagement (Where fitted)

Lubrication Circuit

PTO Clutch Plates
Transmission Clutch Plates.
Transmission Shaft Pressure Lube
Pump Drive Gear Bearing.
Hydraulic Lift Cross Shaft
The high pressure circuit is of the ‘Closed Centre Load Sensing’ design on all tractor model options fed by either a Variable Displacement Pump or a Fixed Displacement Pump.
The steering, low pressure and lubrication circuits are fed by a separate fixed displacement pump via a solenoid activated lubrication block..

Hydraulic Pump/ HPL/ Remote Valve Options																								
	Less Hydraulic Trailer Brakes								With Hydraulic Trailer Brakes								Hydraulic Trailer Brake Italy							
	Fixed Disp.				Variable Disp.				Fixed Disp.				Variable Disp.				Fixed Disp.				Variable Disp.			
	MDC		EDC		MDC		EDC		MDC		EDC		MDC		EDC		MDC		EDC		MDC		EDC	
Remotes	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4
12 x 12	Y	Y							Y	Y							Y	Y						
24 x 24	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y			Y	Y
16 x 16					Y	Y	Y	Y					Y	Y	Y	Y					Y	Y	Y	Y

Before commencing work on a tractor it is important to identify if the tractor has a variable displacement pump or fixed displacement pumps and the type of transmission.
Figure **1** shows the variable displacement pump with a 16 x 16 Transmission.

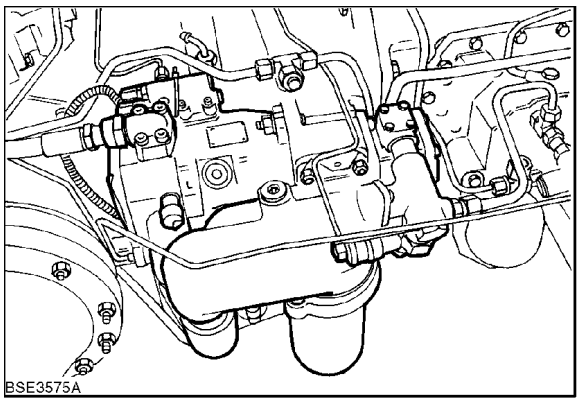

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Figure **2** shows the variable displacement pump with a 16 x 16 Transmission and ARGO hydraulic oil filter fitted to later models..

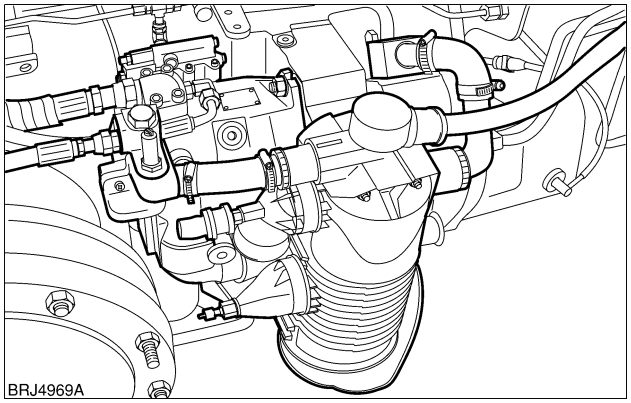

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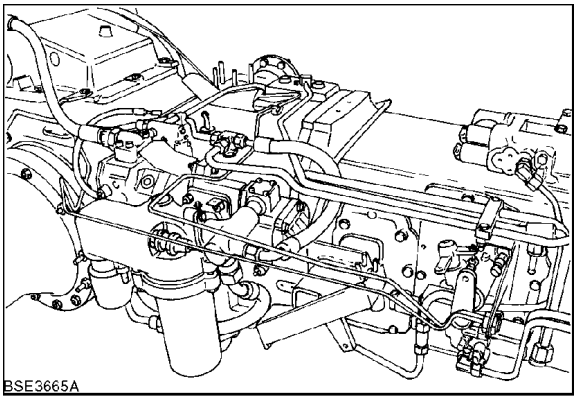
Figure **3** shows the fixed displacement pump with a 24 x 24 Transmission.



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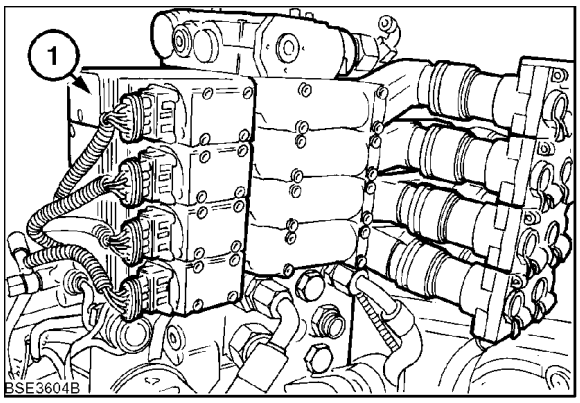
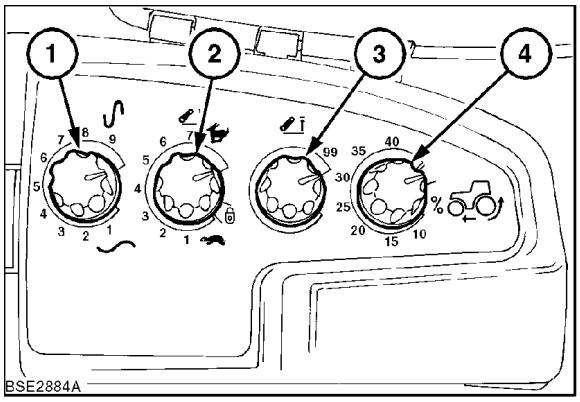
Closed centre remote valves **(1)** and Electronic draft control .



BSE3604B 4

Tractors installed with the electronic draft control hydraulic lift assembly use a unique operator control panel.
(1). Draft sensitivity control knob

(2). Drop rate control knob
(3). Height limit control knob
(4). Slip limit control knob



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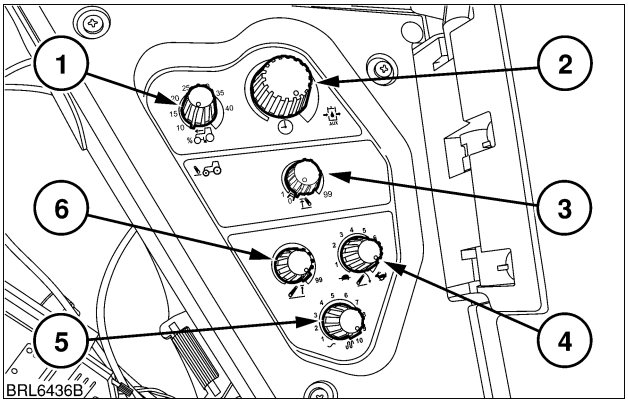
Maxxum Models with armrest unit from Serial No. Z9BE40001- and Z9BE60001-



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The lift arm position control is unique to tractors with electronic draft control.

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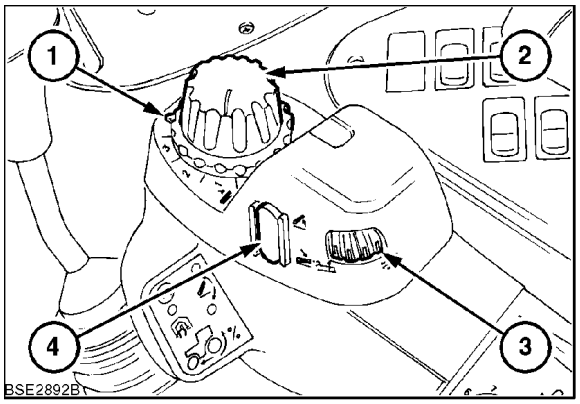
(1). Stop adjuster thumbwheel
(2). Stop
(3). Position control lever
(4). Draft loading wheel
(5). Raise/lower switch



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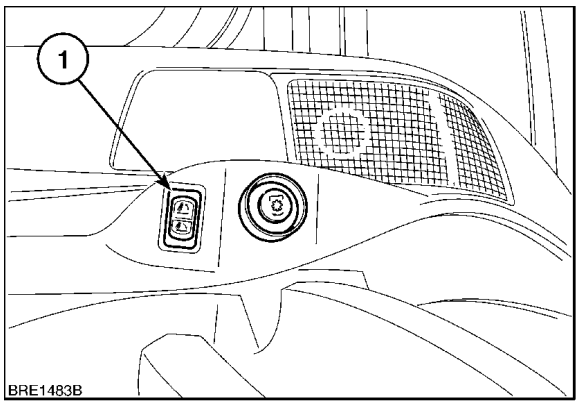
Maxxum Models with armrest unit from Serial No. Z9BE40001 and Z9BE60001

The raise and lowering functions of the electronic draft control lift system can also be operated from the rear fender switch **(1)**.



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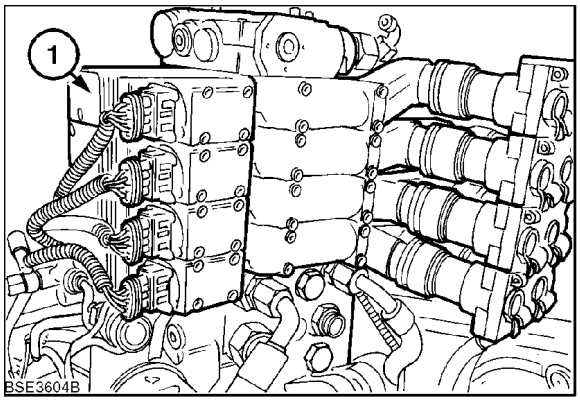
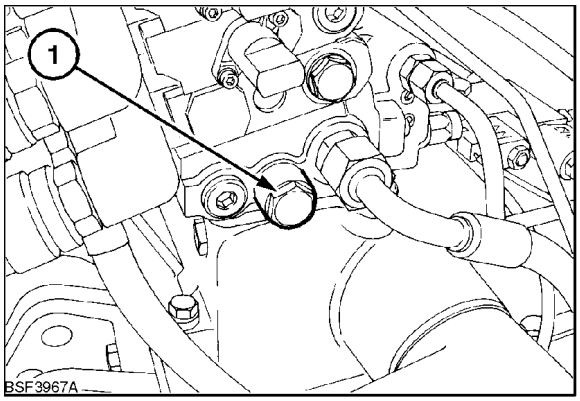
The closed centre model tractors can also have electro-hydraulic remote valves **(1)**.



BSE3604B 9

Located below the Electronic Draft Control valve (Where fitted), is the Hydraulic Power Tapping port (Power Beyond) block. This includes a priority valve **(1)** and also a low pressure regulating valve. This block also has a flange plate which allows the addition of a trailer brake valve.



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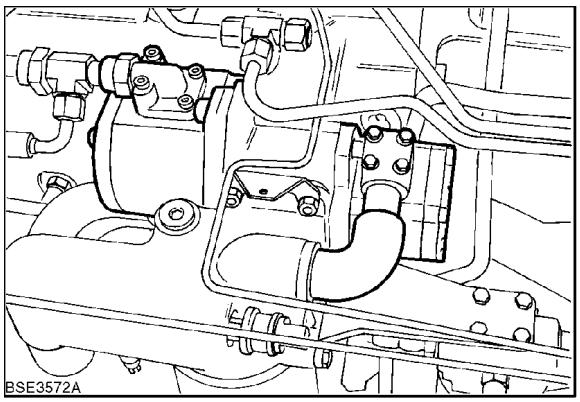
Fixed Displacement high pressure hydraulic systems can be identified from the following:-
Fixed displacement pump.



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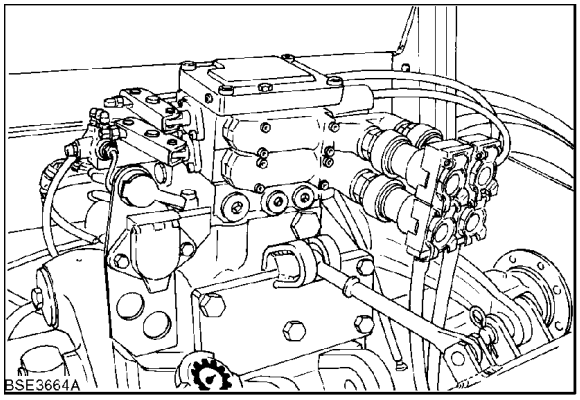
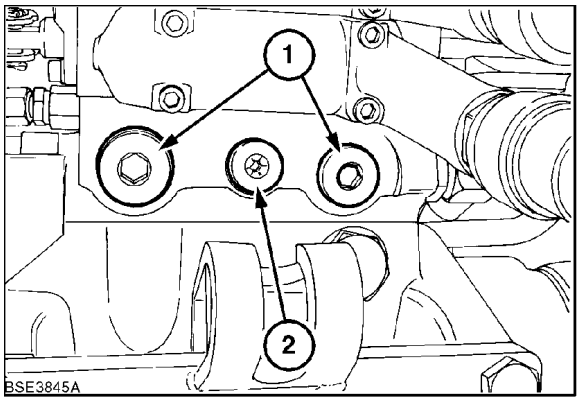
Mechanical remote control valves



BSE3664A 12

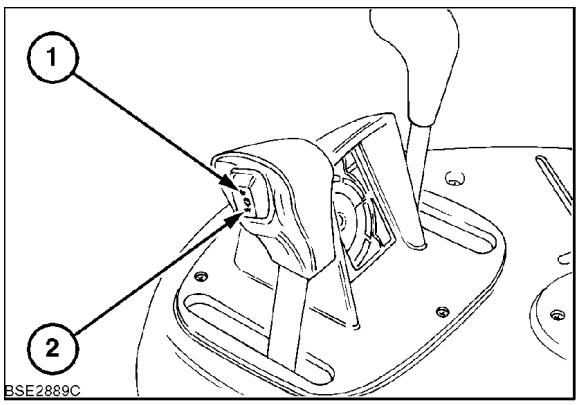
Located below the Electronic Draft Control valve (Where fitted), is the Hydraulic Power Tapping port (Power Beyond) block. This includes a priority valve and also a low pressure regulating valve. This block also has a flange plate which allows the addition of a trailer brake valve.

1. Power Beyond Ports
2. Pressure Relief Valve



BSE3845A 13

The type of transmission installed can be identified by inspecting the transmission control lever.
Tractors with 16 x 16 transmission have a single control lever **(1)** with two shift buttons.
Closed centre hydraulic system only.
Figure **[Invalid Reference]** shows Semi-Powershift control lever..



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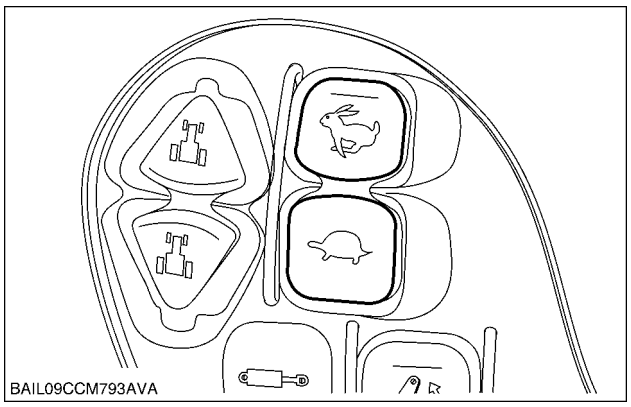
Maxxum Models with armrest unit from Serial No. Z9BE40001- and Z9BE60001-



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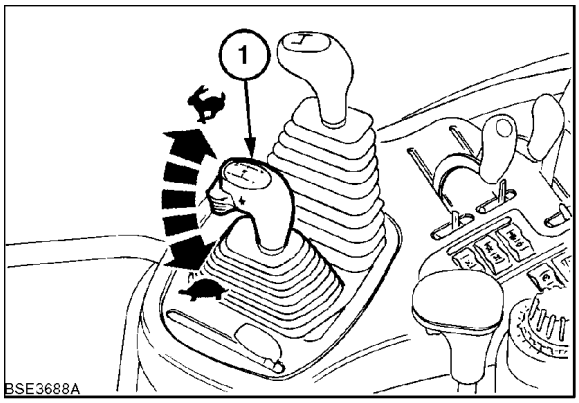
Tractors installed with 24 x 24 transmission uses two control levers. The main transmission lever **(1)** is provided with push buttons **(2)** and **(3)** to actuate the Dual Command function.
These tractors can use either variable displacement pump or a fixed displacement pump.



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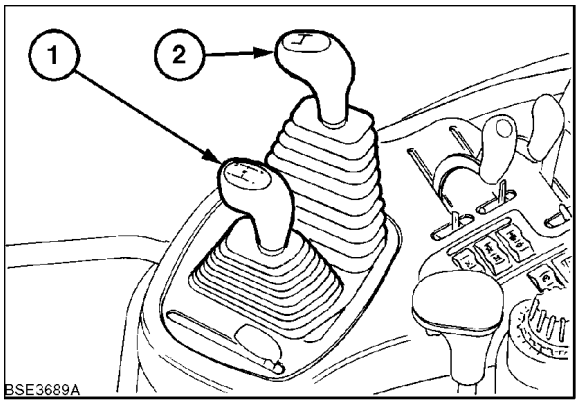
Tractors installed with 12 x 12 Command transmission uses two control levers. These are the main shift lever **(1)** and the range lever **(2)**.



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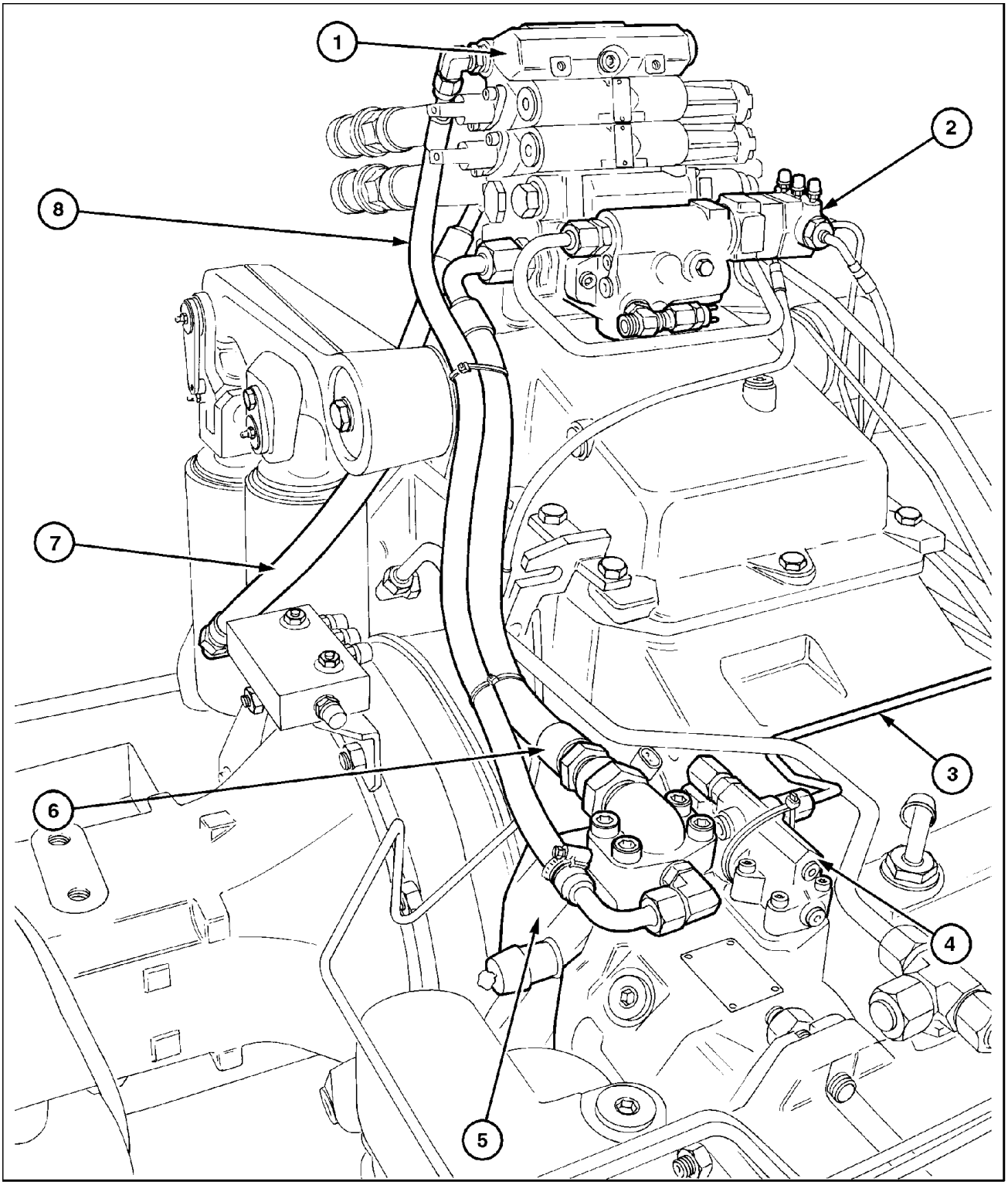
CLOSED CENTRE LOAD SENSING HIGH PRESSURE HYDRAULIC CIRCUIT



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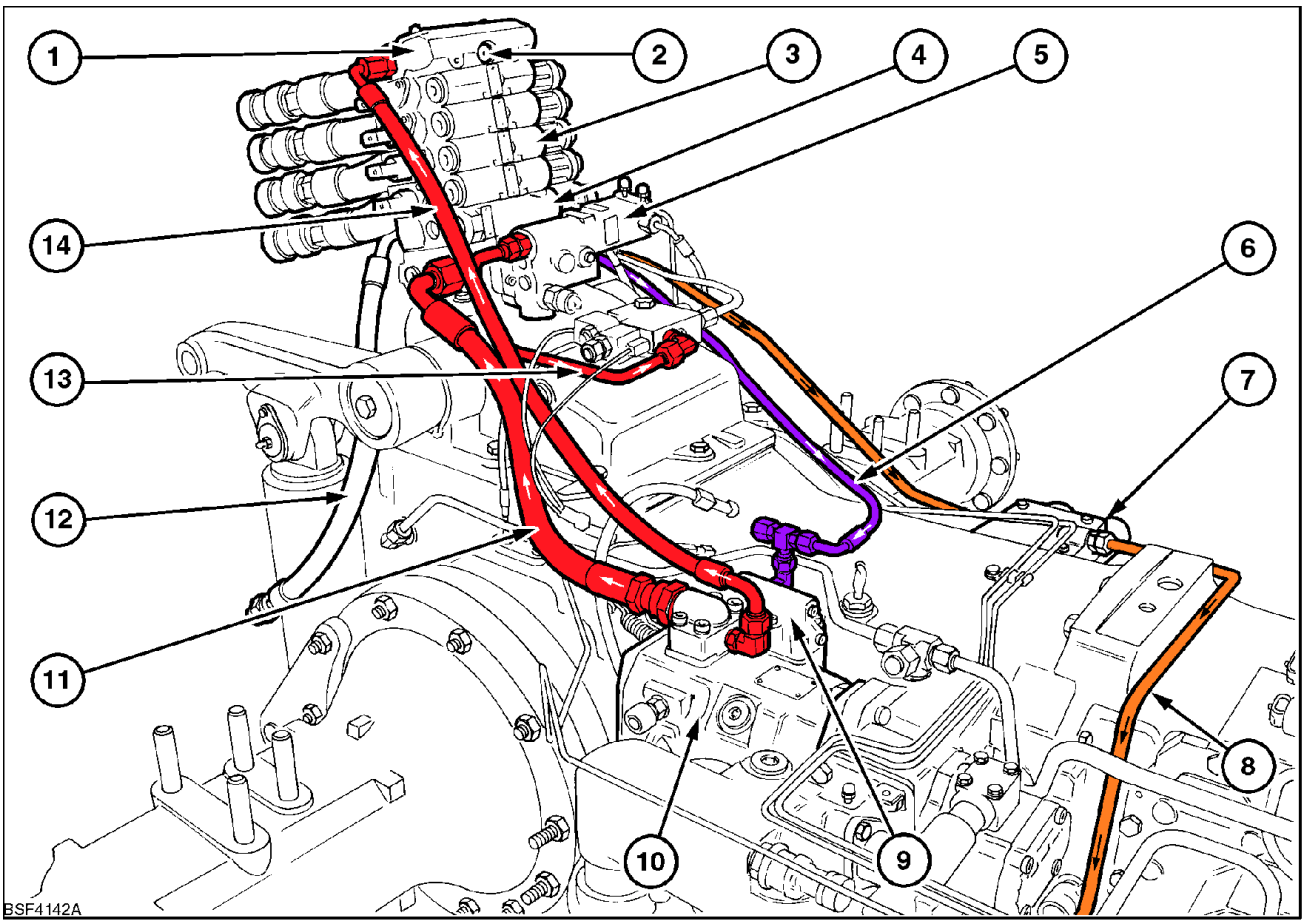
High Pressure Circuit Components and Pipework
Tractors with Variable Flow Piston Pump

1 Remote and EDC Control Valves
2 Trailer Brake Valve
3 Load Sense Lines
4 Flow and Pressure Compensator Valve
5 Variable Flow Hydraulic Pump
6 Feed to Remote Valves
7 To Hydraulic Lift Ram
8 Feed to Electro-Hydraulic Valve Pilot Line

The principal of operation of the closed centre load sensing high pressure hydraulic circuit with variable flow piston pump is to supply oil flow on demand. It also enables simultaneous operation of the trailer brakes, hydraulic lift, remote control valve assemblies and front axle suspension where fitted. The load sensing variable flow piston pump offers significant benefits in reducing the engine power loss that occurs in open centre systems where a high volume of oil, often far in excess of demand, is continuously pumped round the hydraulic circuit even when they are not being operated.

A fixed displacement pump (Charge Pump) serves as an initial displacement pump for the variable displacement pump . The variable displacement pump first of all supplies oil to the trailer brake valve (where fitted), the remote valves and electronic draft control valve and a pilot oil supply with lower priority. The highest load pressure is indicated to the flow and compensating valve on the pump via the load sensing line. The flow and compensator valve controls the pump pressure in such a way that it always exceeds the highest load pressure by a pre-set difference. A priority valve for low pressure circuit demand is located in the bottom subplate of the remote valve stack. Tractors fitted with Electro-hydraulic remote valves also have high pressure oil supplied from the variable displacement pump to the top plate of the remote valve stack. The oil passes through the top plate via a small filter and a pressure limiting valve (**20 - 22 Bar**). The oil is then directed to the pilot oil supply of the electro-hydraulic control valve.



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High Pressure Circuit Components and Pipework
Tractors with Variable Flow Piston Pump

1 End Plate
2 Load Sensing port for Mid Mount Valve
3 Electro-Hydraulic Remote Valves
4 Electronic Draft Control Valve
5 Trailer Brake Valve (Where Fitted)
6 Load Sensing Line
7 Low Pressure Circuit Distribution Manifold
8 Low Pressure Feed
9 Flow and Pressure Compensator Valve
10 Variable Displacement Pump
11 High Pressure Feed to Electro-Hydraulic Remote Valves
12 Feed To Hydraulic Lift Cylinder
13 Feed to Italian type trailer brake solenoids
14 High Pressure Feed to Electro-Hydraulic Valve Pilot Line

The high pressure circuit is illustrated in **PRIMARY HYDRAULIC POWER SYSTEM - Overview (A.10.A)**. Hydraulic pump assembly.

Figure **20** shows the variable displacement pump assembly.
Integral with the high pressure variable displacement pump is the load sensing valve, containing the pressure and flow compensating valves, the steering pump , the charge pressure and main system filters and various electrical switches.

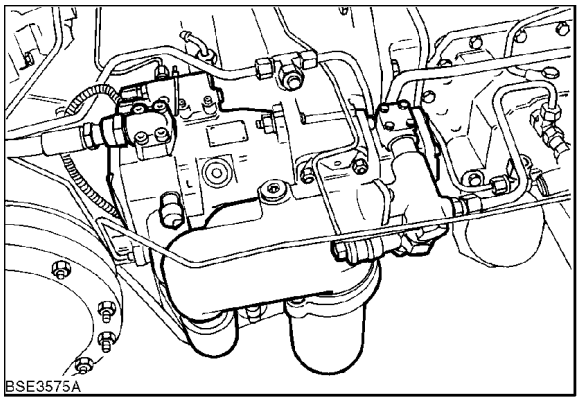

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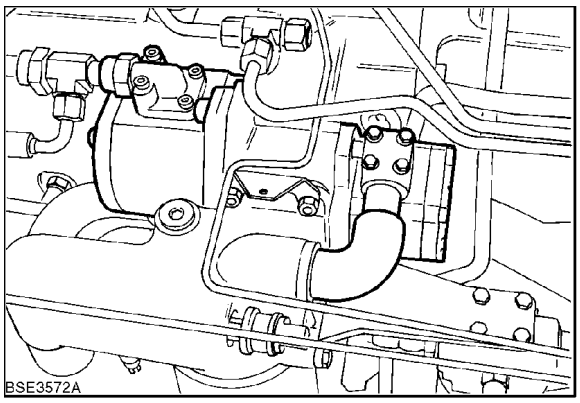
Figure **21** shows the fixed displacement pump assembly.



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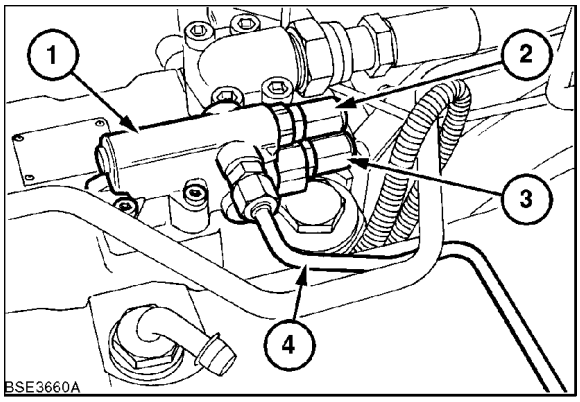
Load sensing valve assembly (1), consists of a flow compensating valve **(2)** and a high pressure control valve **(3)**. The load sensing valve receives hydraulic signals from operated components through the load sense line **(4)** and relays this to the pump which will adjust to satisfy the system demands.
Figure **22** shows the load sense valve assembly.



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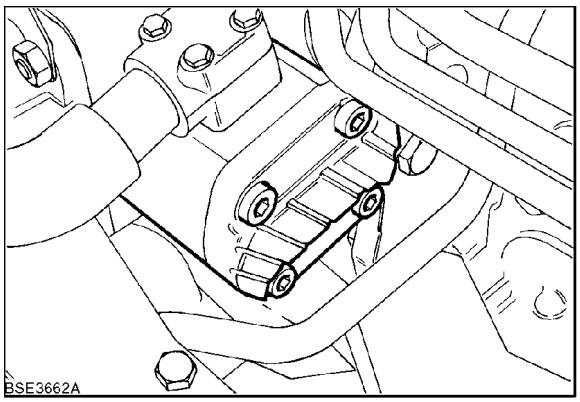
Steering pump,
The steering pump is a separate unit but still driven from the same drive gear as the main pump.



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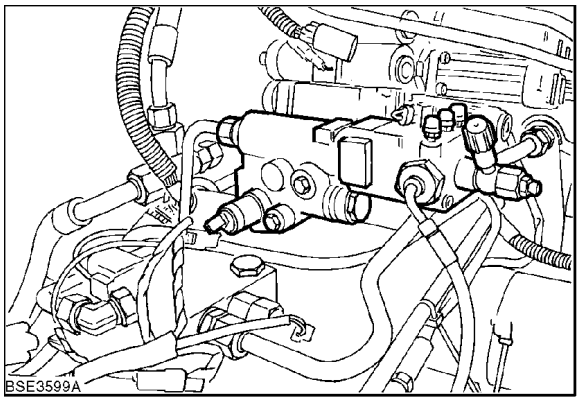
Trailer brake valve which is located beneath the cab just in front of the hydraulic lift assembly. The valve diverts oil pressure to the trailer brakes whenever both tractor brake pedals are depressed.

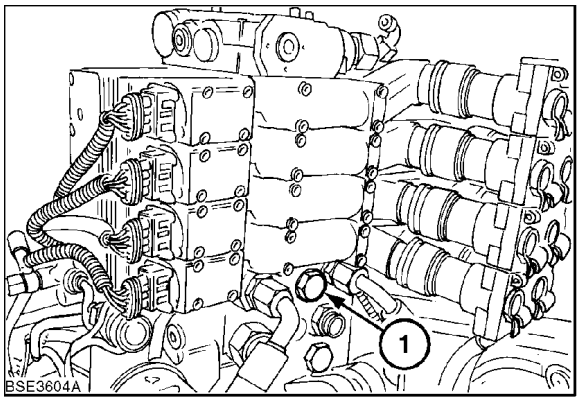


BSE3599A 24

The hydraulic lift Electronic Draft Control Valve is a stack type design mounted together with the Remote Control Valves **(1)** at the rear below the cab, and incorporates the safety valve for the lift cylinders

The lift cylinder safety valve protects the lift cylinder from shock loadings and limits the pressure in the cylinder to **210 - 215 bar**

The hydraulic lift control valve is a proportional solenoid operated valve, controlled by a microprocessor, to raise and lower the hydraulic lift.



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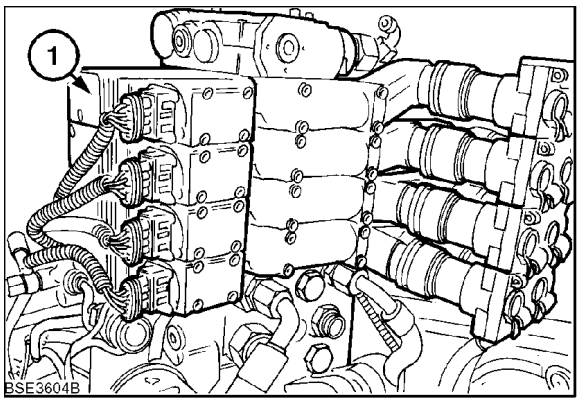
Closed centre load sensing remote control valves

There are two types of remote valves available for the closed centre system. Standard fitment are the mechanical remote valves operated via a cable from within the cab and optional on all 16 x 16 models are electro hydraulically operated valves, **(1)**, Figure **26**, which are operated by electrical switches and have their own in-built processor to control oil flow via a solenoid valve.

Up to four mechanical type valves can be installed.



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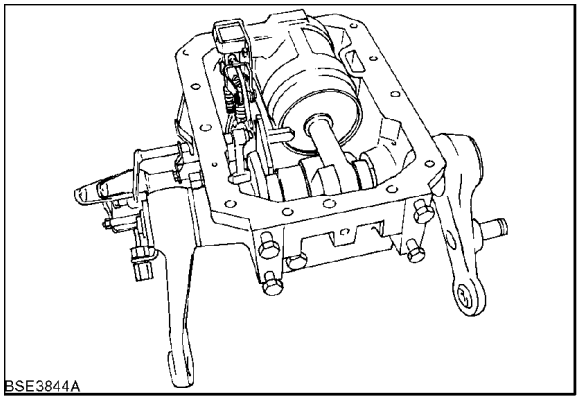
Hydraulic Lift Cylinders.
Models with mechanical draft control utilize a main lift cylinder which is located internally within the rear axle top cover and also one or two **50 mm** external cylinders depending on specification , Figure **27**.



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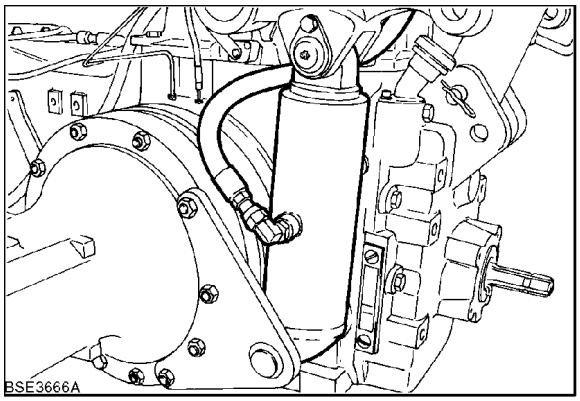
Models with electronic draft control utilize two external cylinders, one per lift arm, anchored to the rear axle with a bracket, Figure **28**.



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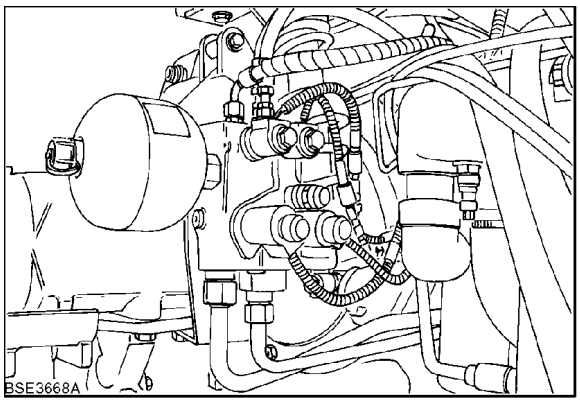
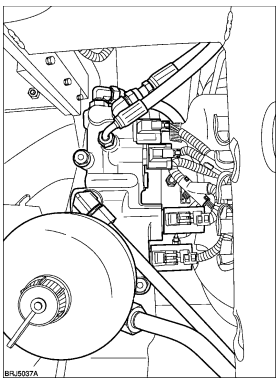
Suspended front axle control valve.
Located on the right hand side of the tractor and attached to the rear axle centre housing. Receives high pressure oil, via the trailer brake valve, if fitted, and with the use of processor controlled PWM valves controls oil to a cylinder, attached between the front axle and front support, to provide a hydraulically controlled suspended front axle.



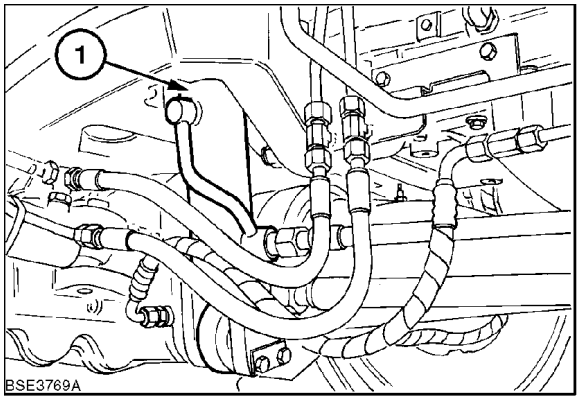
BSE3668A 29

Maxxum Models with armrest unit from Serial No. Z9BE40001 and Z9BE60001



BAIL07APH357HSA 30

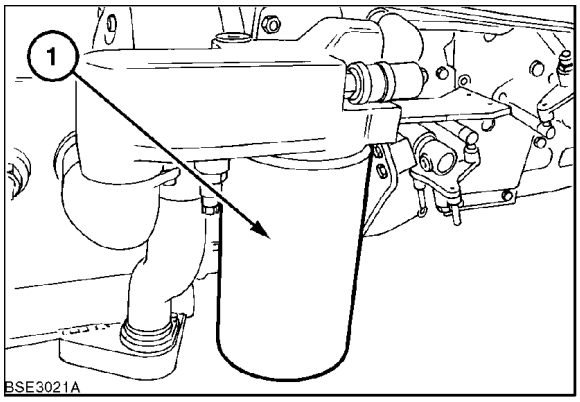
Front axle to front support hydraulic control cylinder **(1)**.



BSE3769A 31

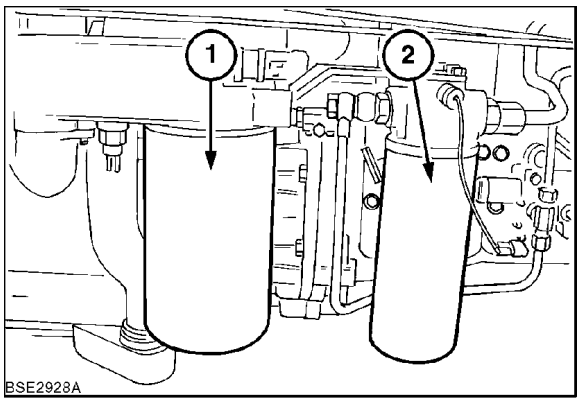
Hydraulic system filters.

Figure **32** shows the main hydraulic filter **(1)** for tractors fitted with 12 x 12 Transmission with mechanical draft control.



BSE3021A 32

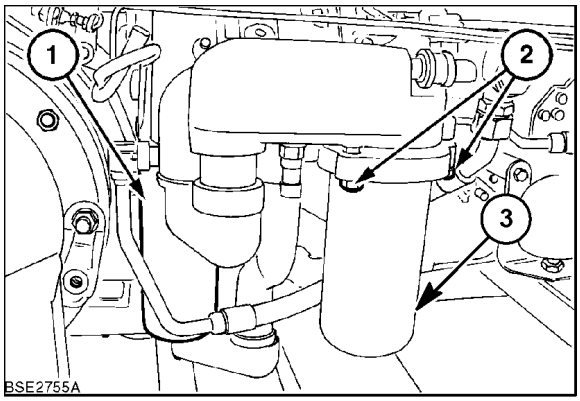
Figure **33** shows the main hydraulic filters for tractors with fixed displacement hydraulic pump. this type of pump is only fitted to tractors with 24 x 24 with mechanical draft control.



BSE2928A 33

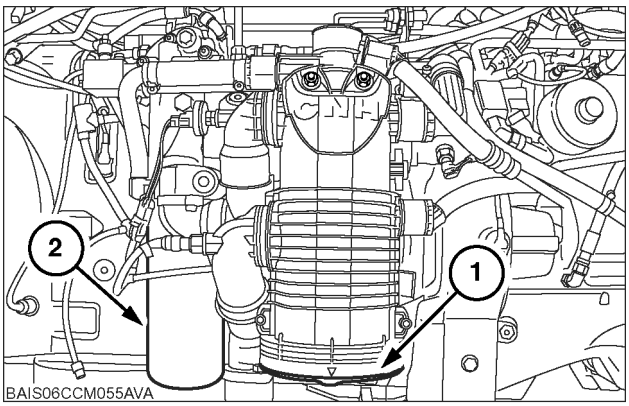
1. Intake Filter
2. Transmission Feed Pressure Filter

The main filter **(3)** and the charge filter **(1)** Figure **34** are only installed on tractors with variable displacement pump (CCLS system).



BSE2755A 34

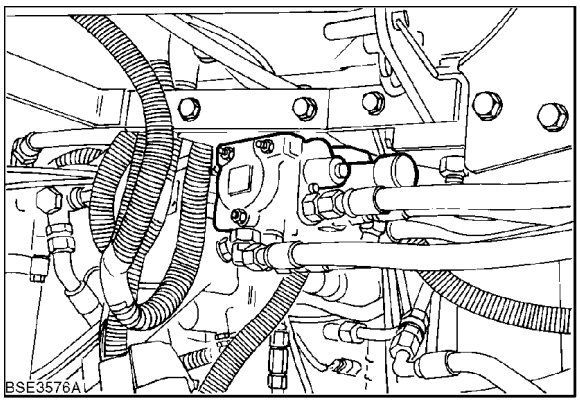
The main filter **(1)** and the charge filter **(2)** Figure **27** are installed on tractors with variable displacement pump (CCLS system).



BAIS06CCM055AVA 35

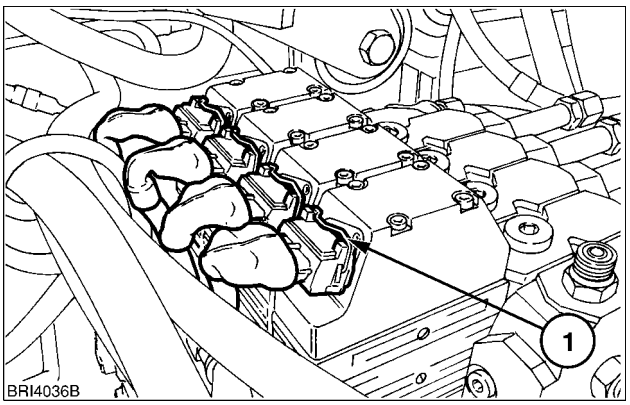
1. Main Intake (Suction) Filter
2. Charge Filter

Mid-Mount Remote Valves.
Optional additional remote valves are mounted under the cab. Connected into the high pressure oil line supplied from the hydraulic pump after the trailer brake valve and operated via a joystick control in the cab.



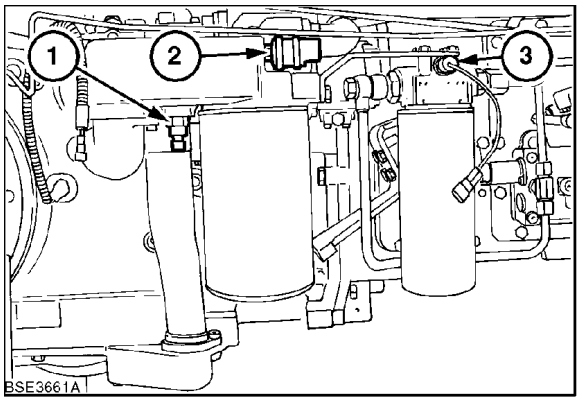
BSE3576A_435 36

Maxxum Models with armrest unit from Serial No. Z9BE40001 and Z9BE60001



BAIL06CCM063ASA 37

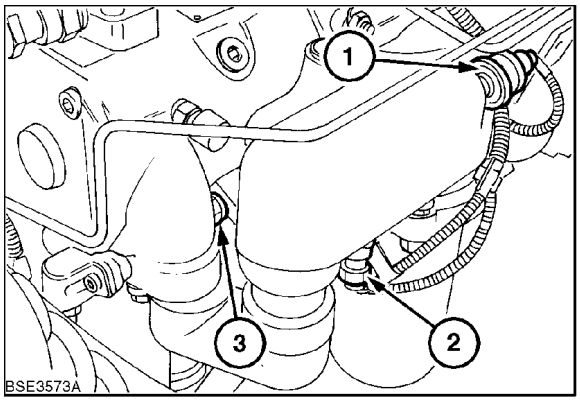
High Pressure Hydraulic System, Fixed Displacement Pump - Electrical Switches



BSE3661A 38

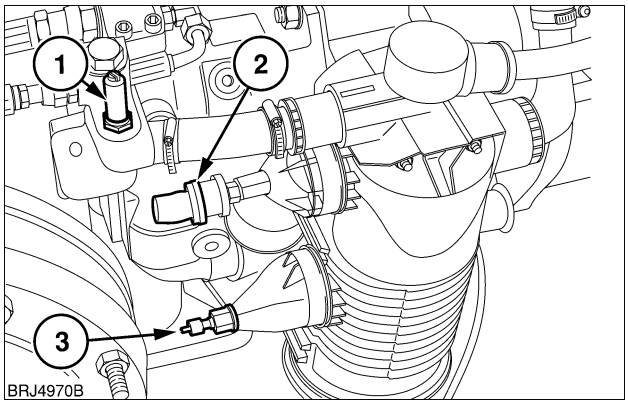
1. Oil Temperature Switch
2. Intake Filter restriction (vacuum) Switch
3. Steering Pressure Switch

High Pressure Hydraulic System, Variable Displacement Pump(CCLS) - Electrical Switches



BSE3573A 39

1. Intake Filter restriction (vacuum) Switch
2. Low Oil Temperature Switch
3. Low Charge Pressure Warning Switch



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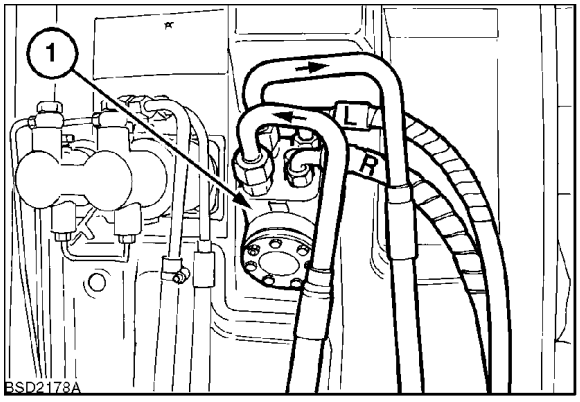
1. Low Charge Pressure Warning Switch
2. Intake Filter restriction (vacuum) Switch
3. Low Oil Temperature Switch

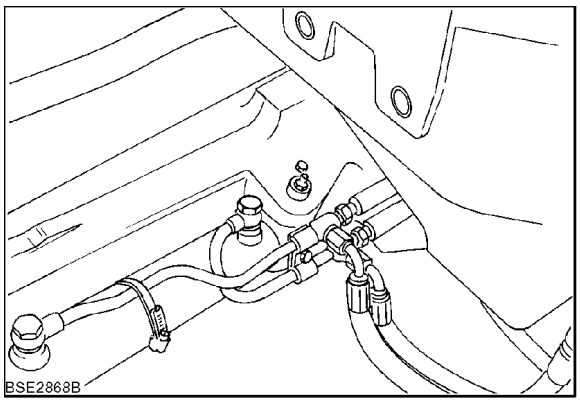
Steering Motor

All models use a fixed displacement motor.



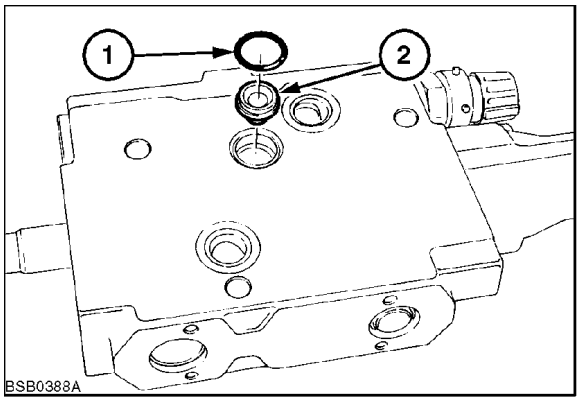
BSD2178A 41

Steering Cylinders.
Receives high pressure oil directly from the steering motor.



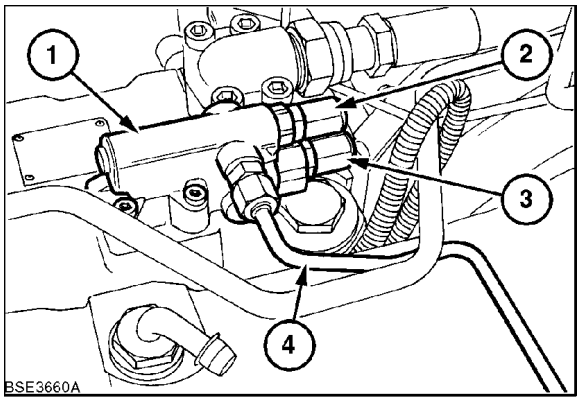
BSE2868B 42

Load Sensing Shuttle Valve.
Located in each remote valve slice, the Electronic Draft Control valve and between the trailer brake valve, front suspension valve and mid-mounted valves, where fitted, is the load sensing shuttle valve **(2)**. This allows the function with the highest pressure demand to send sensing pressure to the load sensing valve, Figure **44**, on the variable displacement pump.



BSB0388A_436 43

1. Valve Body
2. Flow Compensating Valve
3. Pressure Compensator Valve
4. Load Sensing Line



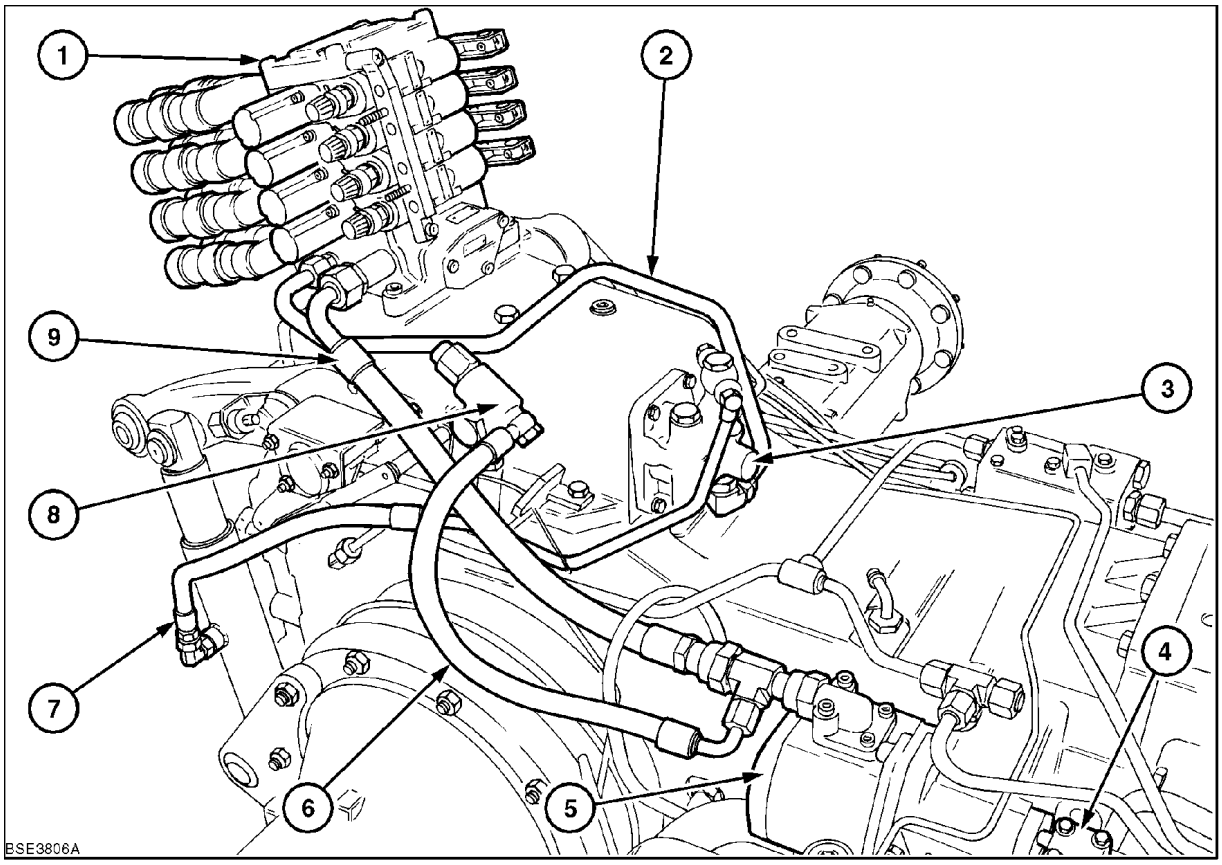
BSE3660A 44

With Reference to **PRIMARY HYDRAULIC POWER SYSTEM - Overview (A.10.A)**.
Operation of the closed centre high pressure hydraulic circuit is as follows:-
The components in the high pressure hydraulic circuit are connected by their load sensing lines to the hydraulic load sensing valve which controls the output of the hydraulic pump.
When the trailer brakes, remote control valves, hydraulic lift or front axle suspension (where fitted) are operating, the load sensing valve on variable flow piston pump, compares the pressure in the component load sense line with the output pressure of the hydraulic pump.

If pump output pressure is less than the combined pressure of the load sense line and spring force of the flow control valve, then pump output continues to increase. When circuit demand is satisfied pump pressure overcomes the combined pressure of the load sense line and flow compensating valve spring. This moves the spool in the flow compensating valve to the right, allowing control pressure oil to be directed to the variable flow swash plate servo piston, which de-strokes the pump to adjust output to circuit demand.
For a detailed explanation on the load sensing operating principle of the variable flow piston pump refer to **Hydraulic pump Fixed displacement pump - Static description (A.10.A)**.
High Pressure oil is fed to a subplate at the bottom of the remote valve stack where it is directed to the Trailer Brake valve which has priority for safety reasons. The oil is then redirected to the Electronic Draft Control Valve and the Electro-Hydraulic Remote Valves. Within the subplate is a pressure compensating valve which diverts the oil to the low pressure system at a pressure of **17 - 18 bar**.
High Pressure oil is also fed to the top of the Remote Valve stack through an end plate which incorporates a pressure limiting valve and this supplies oil at **20 - 22 bar** to the pilot line galleries in the Electro-Hydraulic Remote Valves.
Surplus oil from the charge pump to the variable displacement pump is fed past the **0.8 bar** valve and boosts the pressure in the lubrication circuit.

Refer to **PRIMARY HYDRAULIC POWER SYSTEM - Overview (A.10.A)**.

FIXED DISPLACEMENT HIGH PRESSURE HYDRAULIC CIRCUIT



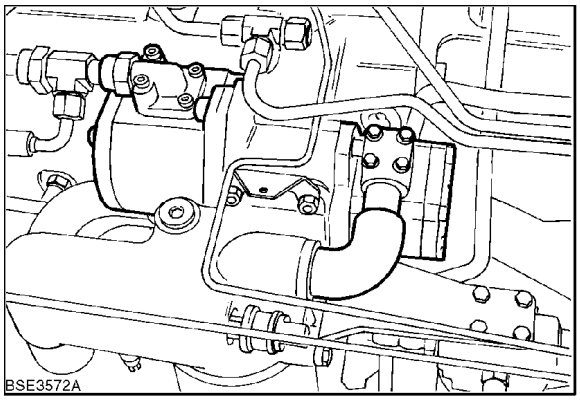
BSE3806A 45

High Pressure Circuit Components and Pipework
Tractors with Mechanical Hydraulic Lift and Fixed Displacement Hydraulic Pump

1 Remote Control Valves
2 Feed To Mechanical Draft Control Valve
3 Mechanical Draft Control Valve
4 Steering Pump (Steering Circuit)
5 High Pressure Circuit Gear Pump
6 Hose To Pressure Relief Valve
7 Feed To Lift Cylinder
8 Pressure Relief Valve(**195 - 205 Bar**)
9 High Pressure Feed To Remote Valve Stack

On high pressure hydraulic systems with fixed displacement pump, all components are connected in series and pump flow is continually circulating through the hydraulic system even when the circuits are not being operated.
The priority of operation is given to the order of components in the circuits, that is trailer brakes, remote valves and hydraulic lift.

The high pressure hydraulic circuits for tractors installed with mechanically controlled hydraulic lift are shown in Figures **52** and include the components shown on the following pages.
Fixed displacement hydraulic pump assembly comprising of the high pressure gear pump and steering/low pressure gear pump .



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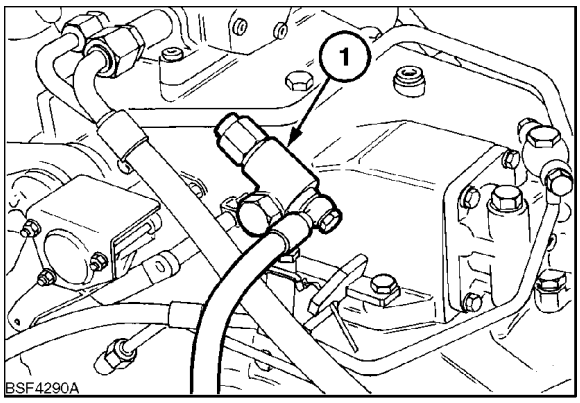
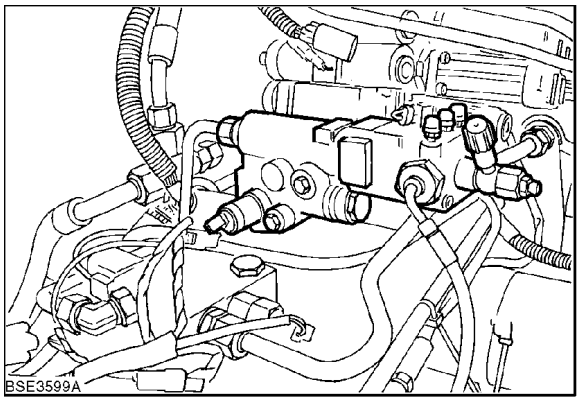
High pressure circuit relief valve **(1)** located on the right hand side of the top cover diverts pump flow to sump if the system pressure reaches **190 bar** (**2755 lbf/in2**).



BSF4290A 47

The trailer brake valve is located beneath the cab on top of the hydraulic lift cover. The valve diverts oil pressure to the trailer brakes whenever the right hand tractor brake pedals is depressed. This is unlike the valve installed on the closed centre system where both pedals have to be depressed in order for the valve to operate.
The trailer brake has absolute priority over other services in the circuit.



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The remote valves are available as two, three or four valves per tractor.
The valves can be double-acting with float and kick out.
Double acting convertible to single-acting with float.
Double acting convertible to single-acting.
When four remote valves are installed the optional flow divider valve **(1)** is available enabling simultaneous operation of remote valve No 1 with another remote valve or hydraulic lift.

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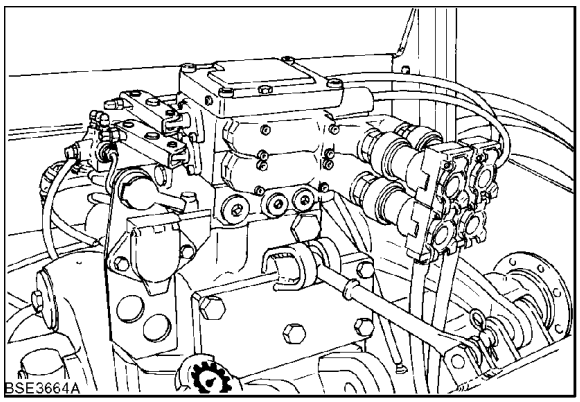

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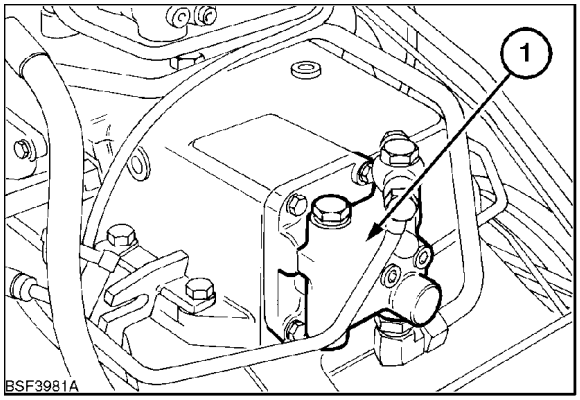
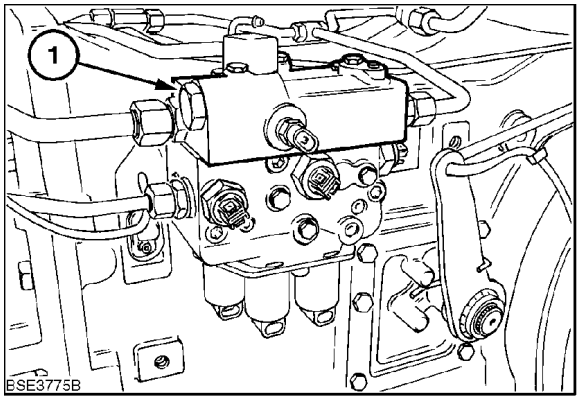
On tractors which are fitted with mechanical hydraulic lift, the lift cylinder control valve **(1)** assembly is located at the front of the hydraulic lift assembly. The lift cylinder safety valve is mounted on the rear face of the control valve which must be removed to obtain access. This safety valve will operate at between **210 - 215 Bar**.



BSF3981A 50

The low pressure regulating valve is located in the top manifold situated on the lubrication services distribution block on the left hand side of the rear axle centre housing. This valve regulates the pressure in the low pressure circuit to **17 - 18 bar** (**246 - 261 lbf/in2**).
Also located in this manifold are the oil cooler by-pass valve and the lubrication relief valve (**7.3 - 8.3 bar**).
When the oil is cold and pressure differential across the oil cooler is higher than **6 bar** (**87 lbf/in2**) the cooler by-pass valve (1) located on the right hand side of the transmission will operate to ensure that adequate flow to the lubrication circuit is maintained. This feature of diverting oil from the cooler assists in aiding a rapid warm up of oil in cold weather conditions.
The steering pump / steering return oil is directed through the oil cooler at the front of the tractor and is limited to a maximum pressure of **7 bar** (**101 lbf/in2**) by the lubrication relief valve located in the lubrication services distribution block on the left hand side of the rear axle centre housing.



BSE3775B 51

High Pressure Circuit for Tractors with Fixed Displacement Pump and Mechanical Hydraulic Lift

With Reference to Figure **52**.
Both the high and low pressure pumps are driven by a ‘live’ drive gear train directly connected to the PTO clutch input drive shaft and driven by the engine flywheel.