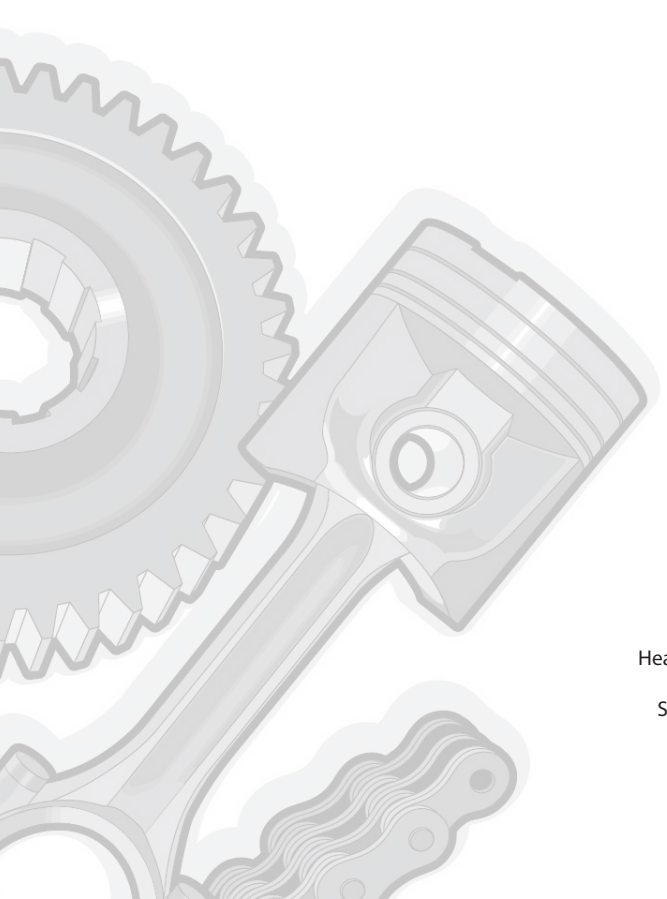




**REPAIR MANUAL
MANUEL DE RÉPARATION
REPARATURANLEITUNG
MANUAL DE REPARACIÓN
MANUALE RIPARAZIONE**

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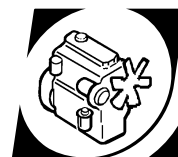
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ENGINE



10

- **ENGINE CHARACTERISTICS AND SPECIFICATIONS**

  **547981EN**

- **ENGINE SYNOPTICS CIRCUITS**

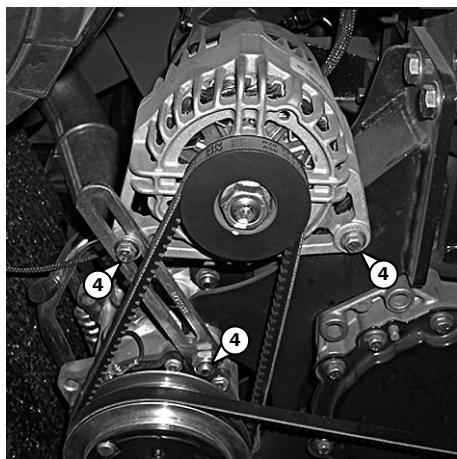
  **547981EN**

- **ENGINE COMPONENTS LOCATION**

- **ENGINE CONTROL AND ADJUSTMENT**

- **ENGINE BOX ASSEMBLY REMOVAL**

- **ENGINE BOX ASSEMBLY REFIT**



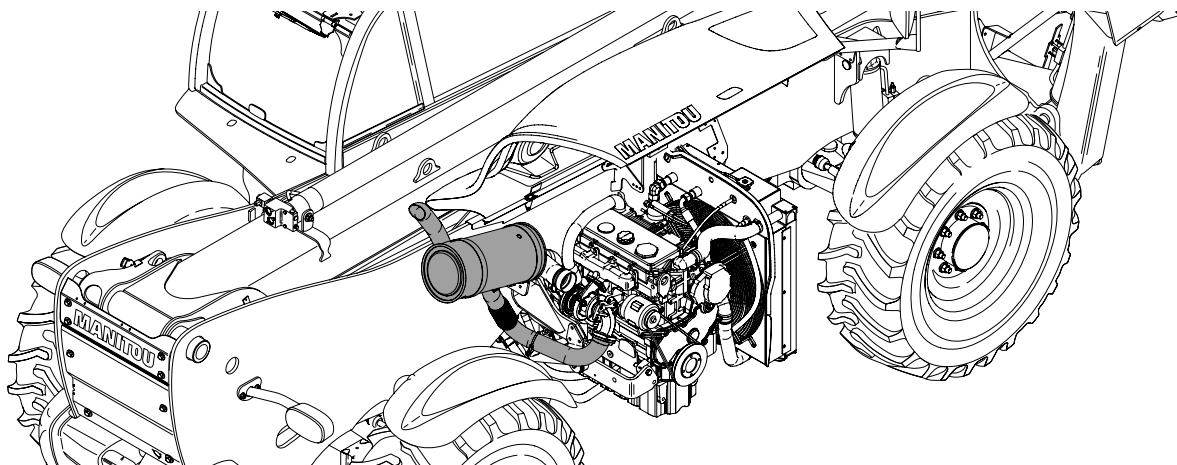
ALTERNATOR BELT

- Check the belt for signs of wear and cracks and replace if necessary (see Operator manual).
- Check the belt tension between the pulleys of the alternator and the compressor.
- Under a normal pressure exerted with the thumb (45 N), the belt should move approximately 10 mm.
- Carry out adjustments if necessary.

- Untighten screws (Item 4) with two to three thread turns.
- Swivel the alternator assembly so as to obtain the belt tension required.
- Retighten screws (Item 4) (tightening torque 22 Nm).
- Refit the protective casing.



If the compressor belt has to be changed, check the tension again after the first 20 hours of operation.

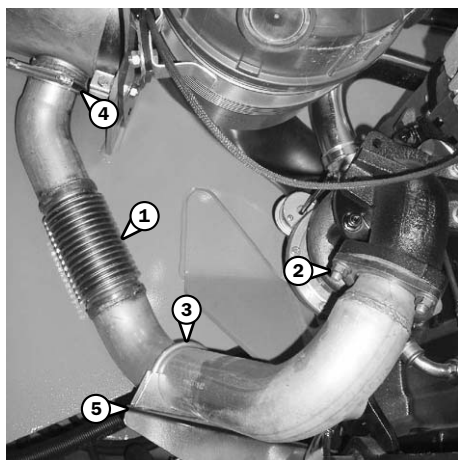


EXHAUST PIPE «C»

EXHAUST PIPE AND TUBE WORKS

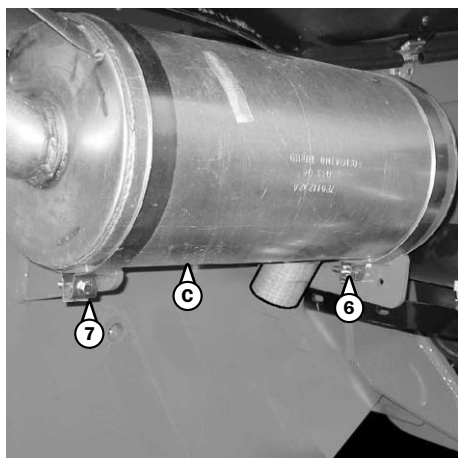
Removal of only the exhaust compensator (Item 1) tube works.

Unscrew the flange (Item 2) fixed on the engine block. Dismantle the flange (Item 3) fixed on the lower bracket. Unscrew the flange (Item 4) on the exhaust pipe side. Move the lower flange bracket aside (Item 5). Remove the tubes (Item 1).



NOTE:

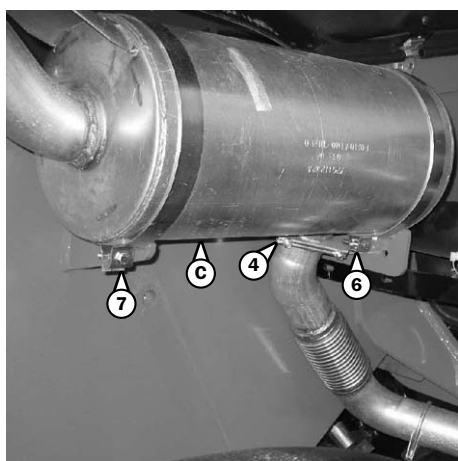
The following operations for removing the exhaust pipe are not indispensable for removing the engine/box assembly.



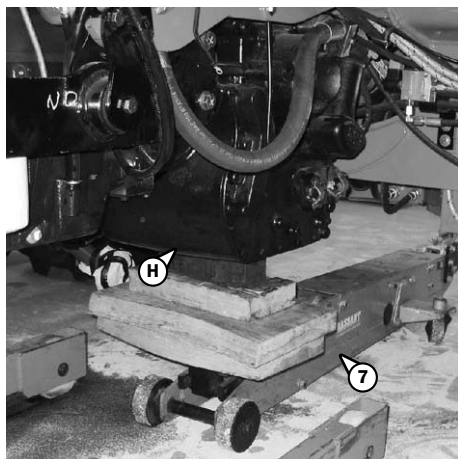
Unscrew both flange clips (Items 6 and 7). Slide the exhaust pipe «C» towards the back, then remove it.

ONLY THE EXHAUST PIPE

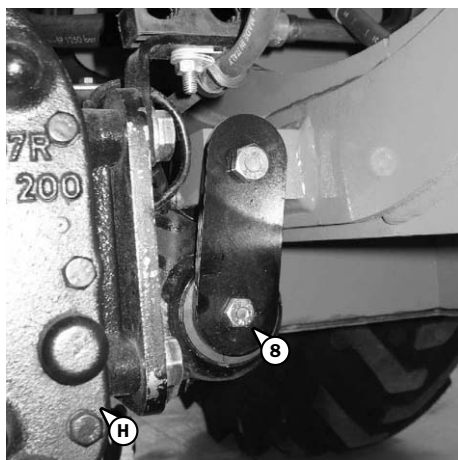
Unscrew both flange clips (Items 6 and 7). Unscrew the tube flange (Item 4). Take the front flange clip (Item 6) off completely. Slide the rear flange clip (Item 7) towards the back then lift up the front of the exhaust pipe «C» and remove it.



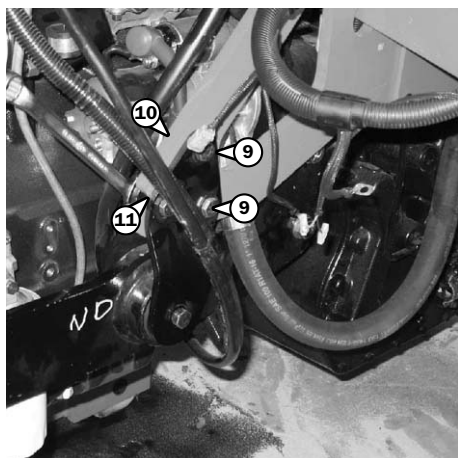
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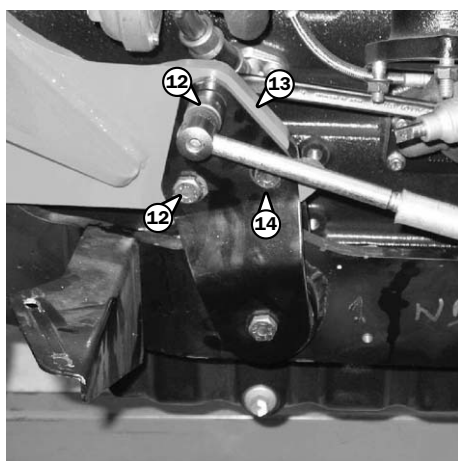
For more safety: place a jack (Item 7) under the gearbox «H».



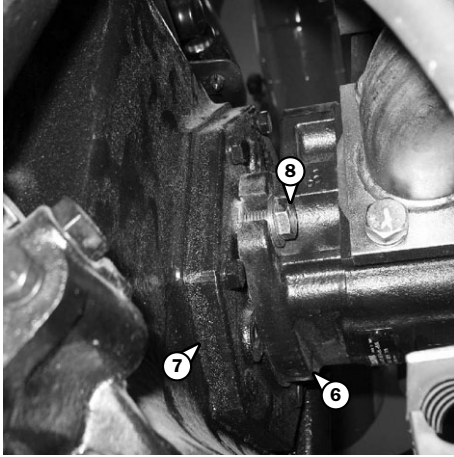
Remove the silent block mounting (Item 8) located on the gearbox and hydraulic pump side.



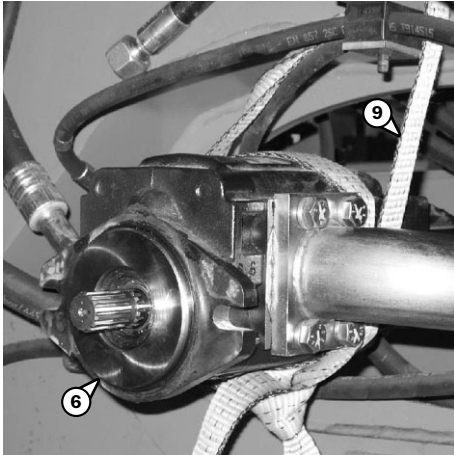
Take the two mountings (Item 9) off the front engine bracket (Item 10).
Loosen the third mounting (Item 11).



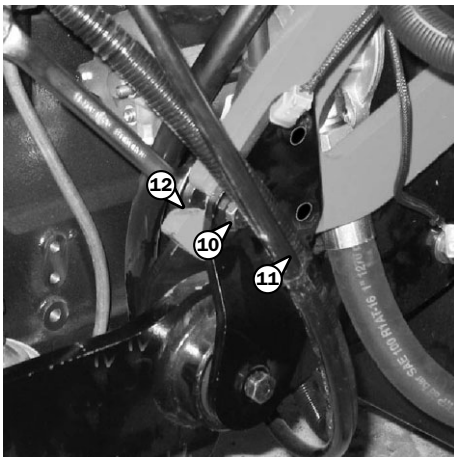
Take the two mountings (Item 12) off the rear engine bracket (Item 13).
Loosen the third mounting (Item 14).



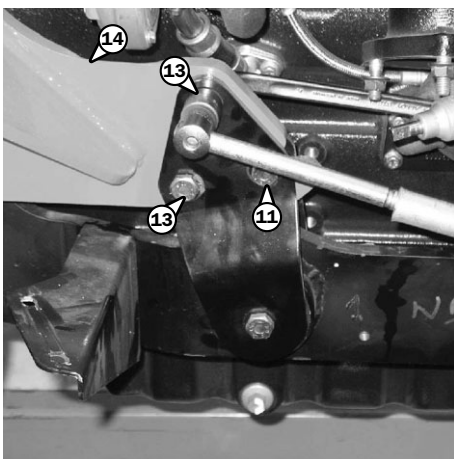
Couple the hydraulic pump (Item 6) to the rear of the gearbox «H» by refitting both screws (Item 8).



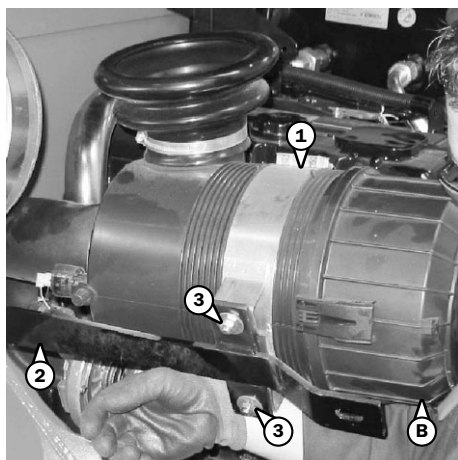
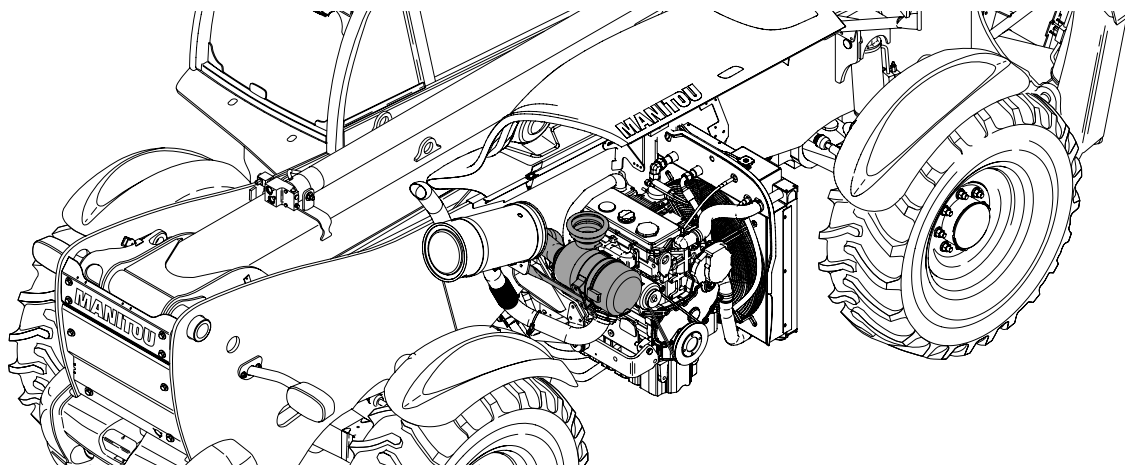
Take off the retaining strap (Item 9) that was installed on the hydraulic pump (Item 6) during dismantling.



Lift up slightly the engine/box assembly 2 to 3 mm. Adjust and fit the first screws (Items 10 and 11) inside the engine bracket semi-lights (Item 12).

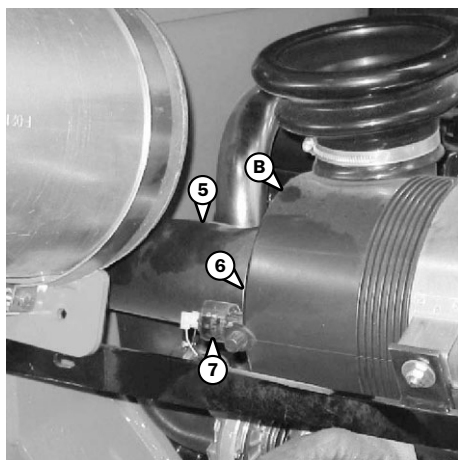


Fit both screws (Item 13) on the rear engine bracket (Item 14).



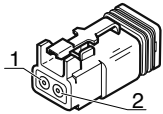
AIR FILTER «B»

Fit the main clamp (Item 1) on the air filter «B» and place the assembly on the bracket (Item 2).
Fit the mountings (Item 3).

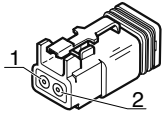


Fit the intake hose (Item 5) with its tightening clamp (Item 6) on the air filter outlet tube, then tighten the clamp.
Connect the electrical harness of the clogging indicator (Item 7).

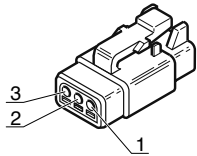
Rep.	Pos	N° fil	Couleur	Section (mm2)	Vers
X91	1	3	VERT	1	EP71
	2	4	NOIR	1	Masse Chassis M3



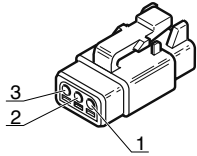
Rep.	Pos	N° fil	Couleur	Section (mm2)	Vers
X92	1	7	VERT	1	EP90
	2	8	NOIR	1	Masse Chassis M1



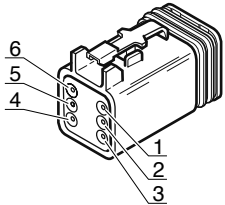
Rep.	Pos	N° fil	Couleur	Section (mm2)	Vers
X96	1	128	NOIR	0,6	Masse Chassis M1
	2	127	GRIS	0,6	X148/24
	3		BOUCHON		



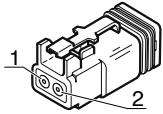
Rep.	Pos	N° fil	Couleur	Section (mm2)	Vers
X97	1	130	NOIR	0,6	Masse Chassis M2
	2	129	GRIS	0,6	X148/54
	3		BOUCHON		



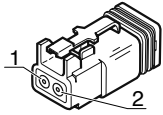
Rep.	Pos	N° fil	Couleur	Section (mm2)	Vers
X100	1	23	VERT	1	EP91
	2	18	VERT	1	EP20
	3	21	VERT	1	X148/50
	4	24	VERT	1	EP91
	5	19	VERT	1	EP20
	6	22	VERT	1	X148/80



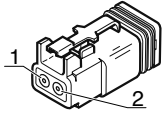
Rep.	Pos	N° fil	Couleur	Section (mm2)	Vers
X105	1	538	JAUNE	2	EP73
	2	256	NOIR	2	Masse Chassis M3



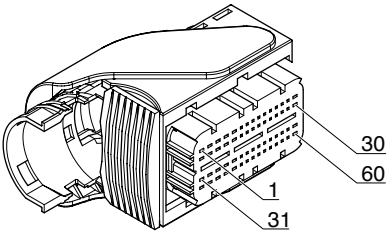
Rep.	Pos	N° fil	Couleur	Section (mm2)	Vers
X106	1	253	JAUNE	2	X112-8
	2	254	NOIR	2	Masse Chassis M3



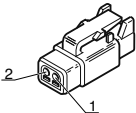
Rep.	Pos	N° fil	Couleur	Section (mm2)	Vers
X109	1	251	JAUNE	2	X112-9
	2	252	NOIR	2	Masse Chassis M3



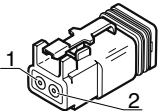
Rep.	Pos	N° fil	Couleur	Section (mm2)	Vers
X186	1	318	VERT	1	X184/1
	2	319	VERT	1	X184/2
	5	325	NOIR	1,5	Masse Chassis M3
	6	300	GRIS	0,6	X185/1
	9	309	GRIS	0,6	X182/2
	10	308	GRIS	0,6	X182/1
	11	311	GRIS	0,6	X62/2
	12	310	GRIS	0,6	X62/1
	15	303	VERT	1	X111/14
	20	322	VERT	1	X151/59
	21	323	GRIS	0,6	X151/90
	22		BLANC	0,5	X148/44
	23		MARRON	0,5	X148/43
	26	329	GRIS	0,6	X58/2
	27	332	GRIS	0,6	X58/1
	28	338	GRIS	0,6	X186/28
	29	304	GRIS	0,6	X111/15
	31	314	VERT	1	X54/1
	32	315	VERT	1	X54/2
	33	316	VERT	1	X53/1
	34	317	VERT	1	X53/2
	36	334	GRIS	0,6	X185/3
	39	301	GRIS	0,6	X185/2
	44	326	NOIR	0,6	Masse Chassis M3
	45	333	VERT	1	X149/84
	58	320	GRIS	0,6	X112/10
	59	328	GRIS	0,6	X57/1
	60	324	VERT	1	X151/89



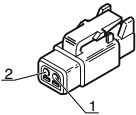
Rep.	Pos	N° fil	Couleur	Section (mm2)	Vers
X187	1	500	GRIS	0,6	X150/58
	2	501	GRIS	0,6	X150/28

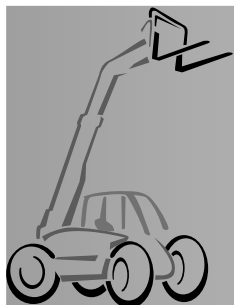


Rep.	Pos	N° fil	Couleur	Section (mm2)	Vers
X188	1	502	VERT	1	X151/70
	2	503	NOIR	1	Masse Chassis M3



Rep.	Pos	N° fil	Couleur	Section (mm2)	Vers
X189	1	504	GRIS	0,6	X150/06
	2	505	GRIS	0,6	X150/08

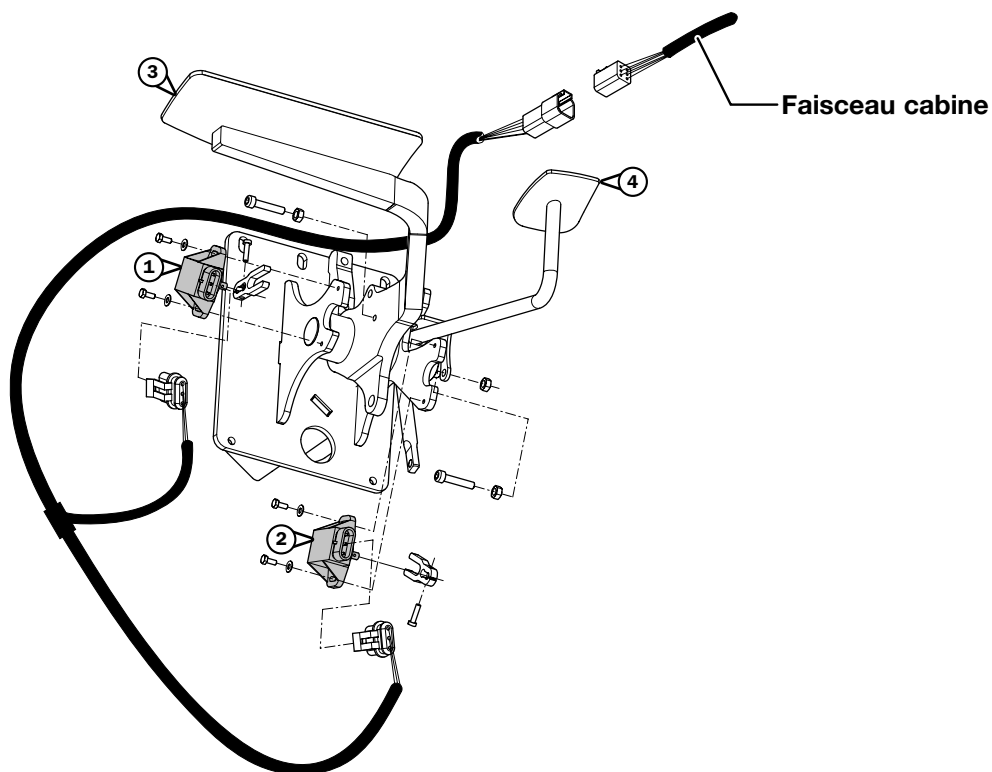
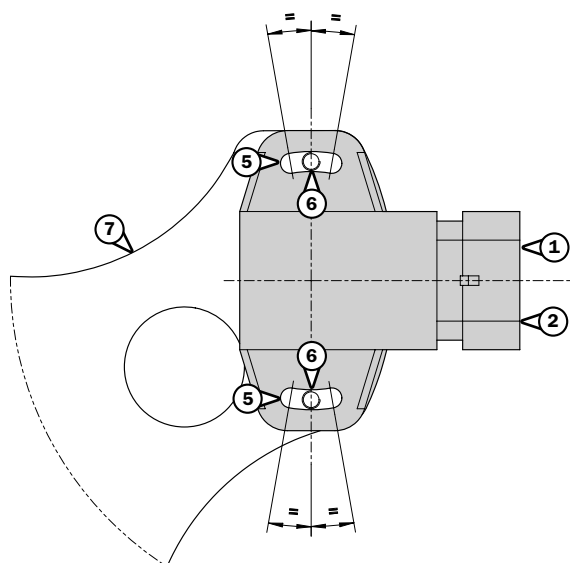




**LOCALISATION DES COMPOSANTS OPTIONS -
ACCESSOIRES**

pages

– Option Inching. A

RÉGLAGE POTENTIOMÈTRES PÉDALES OPTION INCHINGLocalisation :**PROCÉDURE DE RÉGLAGE**

Les 2 potentiomètres (Rep.1 et 2) des pédales de frein (Rep.3) et d'accélérateur (Rep.4) de l'option Inching nécessitent un pré-réglage dans la cabine avant calibrage sur l'outil de diagnostic:

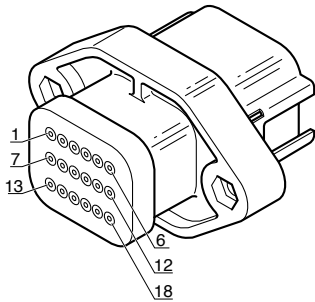
- Positionner le potentiomètre (Rep.1 ou 2) de telle sorte que ses 2 trous oblongs (Rep.5) soient centrés par rapport aux trous de perçage (Rep.6) effectués dans le support cabine (Rep.7).



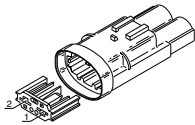
Si un composant de l'option Inching est remplacé, il est alors nécessaire de le recalibrer via l'outil de diagnostic.

Outils spécifiques: outil de diagnostic, manomètre (40 bar)

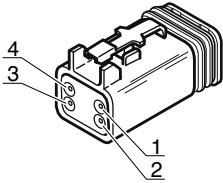
Rep.	Pos	N° fil	Couleur	Section (mm2)	Vers
X112 (Chassis)	1		BOUCHON	114017	
	2		BOUCHON	114017	
	3		BOUCHON	114017	
	4		BOUCHON	114017	
	5		BOUCHON	114017	
	6		BOUCHON	114017	
	7		BOUCHON	114017	
	8	253	JAUNE	2	X106-1
	9	251	JAUNE	2	X109-1
	10		GRIS	0,6	X186/58
	11		BOUCHON	114017	
	12		BOUCHON	114017	
	13		BOUCHON	114017	
	14	536	JAUNE	2	EP73
	15		BOUCHON	114017	
	16		BOUCHON	114017	
	17	525	VERT	1	X195-6
	18		BOUCHON	114017	



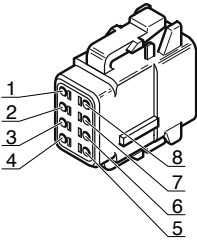
Rep.	Pos	N° fil	Couleur	Section (mm2)	Vers
X116 (Chassis)	1	ALIM 1	ROUGE	10	EP5
	2	ALIM 2	ROUGE	10	EP6



Rep.	Pos	N° fil	Couleur	Section (mm2)	Vers
X124	1	270	VERT	1	EP61
	2	32	VERT	1	X151/09
	3	272	VERT	1	X151/10
	4	271	VERT	1	EP61

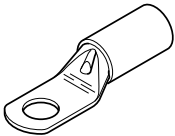


Rep.	Pos	N° fil	Couleur	Section (mm2)	Vers
X125	1	28	VERT	1	EP40
	2	29	VERT	1	EP40
	3	30	VERT	1	EP40
	4		BOUCHON	PLUG	
	5		BOUCHON	PLUG	
	6	25	VERT	1	X150/23
	7	26	VERT	1	X150/53
	8	27	VERT	1	X150/54

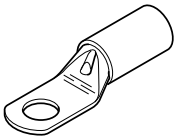


MASSSES

Rep.	N° fil	Couleur	Section (mm2)	Vers
Masse Chassis M1	118	NOIR	1	X36/1
	128	NOIR	0,6	X96/1
	131	NOIR	1	X35/1
	171	NOIR	1	X60/2
	225	NOIR	0,6	X70-2
	228	NOIR	0,6	X132-2
	8	NOIR	1	X92/2
	421	NOIR	0,6	X162-2
	423	NOIR	0,6	X163-2
	425	NOIR	0,6	X164-2



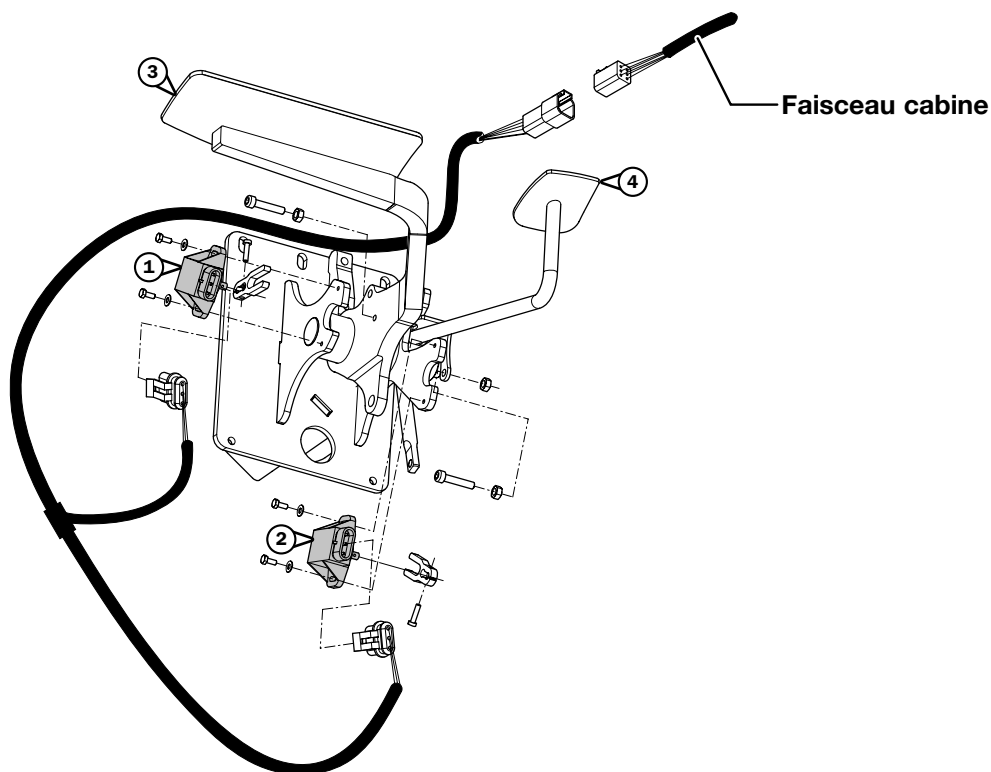
Rep.	N° fil	Couleur	Section (mm2)	Vers
Masse Chassis M2	124	NOIR	0,6	X87/1
	126	NOIR	0,6	X88/1
	130	NOIR	0,6	X97/1
	131	NOIR	1	X35/1
	190	NOIR	2	X148/15
	191	NOIR	2	X148/45
	192	NOIR	2	X148/75
	193	NOIR	2	X150/15
	195	NOIR	2	X150/45
	194	NOIR	2	X150/75
	203	NOIR	1	X21-2
	509	NOIR	1	X191-2



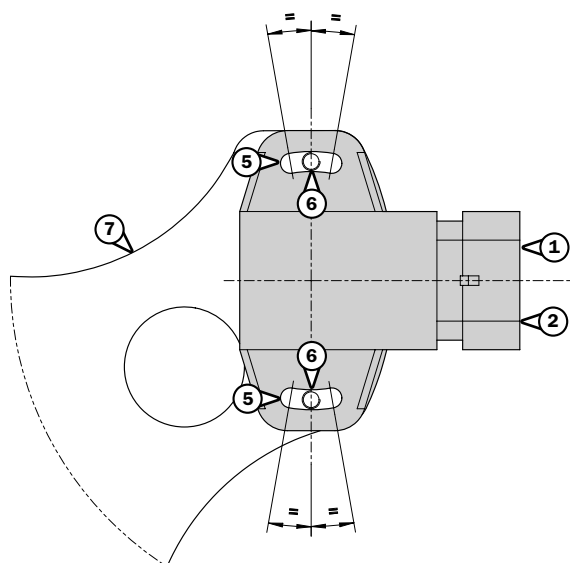
Type faisceau	Rep.	Désignation	Position sur faisceau 2D Chassis	Commentaires
Chassis	X133	Pressostat frein négatif ON/OFF	Q21	
Chassis	X134	Capteur flèche rentrée	A5	
Chassis	X135	Opt suspension flèche	K5	
Cabine 1	X139	Potentiomètres pédales (inching)	Voir montage faisceau cabine	Version Inching
Cabine 1	X140	Opt résistance inching	Voir montage faisceau cabine	Version Inching
Chassis	X148	Manimux Power 1 (MP1)	A20	
Chassis	X149	Manimux Power 1 (MP1)	A22	
Chassis	X150	Manimux Power 2 (MP2)	C20	
Chassis	X151	Manimux Power 2 (MP2)	C22	
Chassis	X152	Joystick électro (BMEP)	Q28	
Chassis	X156	EV proportionnelle télescope	I39	
Chassis	X157	EV proportionnelle levage	I38	
Chassis	X158	EV proportionnelle inclinaison	I37	
Chassis	X159	EV proportionnelle auxiliaire	I36	
Chassis	X160	EV sécurité mouvement sur distributeur EP	K35 / M39	
Chassis	X161	EV déviateur	I36	
Chassis	X162	Déviateur stabilisateur droit	I23	
Chassis	X163	Déviateur stabilisateur gauche	I22	
Chassis	X164	Déviateur dévers	K22	
	X180	Potentiomètre pédale de frein	Voir montage faisceau cabine	Version Inching
	X181	Potentiomètre pédale accélérateur	Voir montage faisceau cabine	Version Inching
	X182	Capteur de vitesse turbine	I11	Version Inching
	X184	EV proportionnelle marche AV/AR	K14	Version Inching
	X185	Diag RS232 - Econ.B 120	C23	Version Inching
	X186	Econ.B 120	C27	Version Inching
Chassis	X187	Pressostat valve de décharge	E24	
Chassis	X188	EV valve de décharge	E26	
Chassis	X189	Bouton poussoir	S28	
Chassis	X190	EV vérin blocage essieu gauche	C16	
Chassis	X191	EV vérin blocage essieu droit	O10	
Chassis	X192	Capteur 1 présence nacelle	K26	
Chassis	X193	Capteur 2 présence nacelle	K28	
Chassis	X194	Capteurs inductifs 1 et 2 intermédiaires flèche	A2	
Chassis	X195	Prise enrouleur ORH	A4	
Chassis	X243	Connecteur secours ORH	K36	

RÉGLAGE POTENTIOMÈTRES PÉDALES OPTION INCHING

Localisation :



PROCÉDURE DE RÉGLAGE



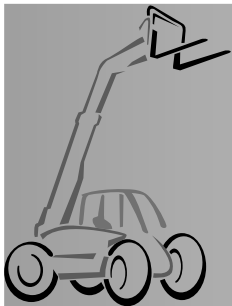
Les 2 potentiomètres (Rep.1 et 2) des pédales de frein (Rep.3) et d'accélérateur (Rep.4) de l'option Inching nécessitent un pré-réglage dans la cabine avant calibrage sur l'outil de diagnostic:

- Positionner le potentiomètre (Rep.1 ou 2) de telle sorte que ses 2 trous oblongs (Rep.5) soient centrés par rapport aux trous de perçage (Rep.6) effectués dans le support cabine (Rep.7).



Si un composant de l'option Inching est remplacé, il est alors nécessaire de le recalibrer via l'outil de diagnostic.

Outils spécifiques: outil de diagnostic, manomètre (40 bar)

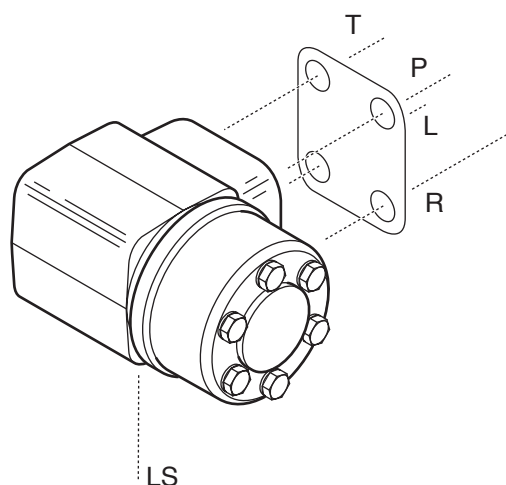


TRANSMISSION COMPONENTS LOCATION

	pages
– Transmission circuit	2
– Cooling circuit.	3

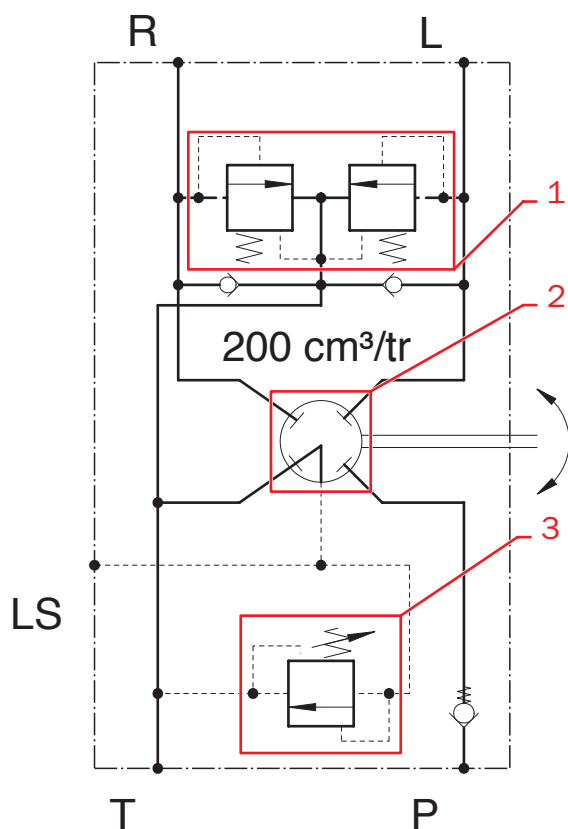
STEERING PUMP / DIRECTIONAL BLOCK OSPC 200 LS

Values for information purposes only.



Role:

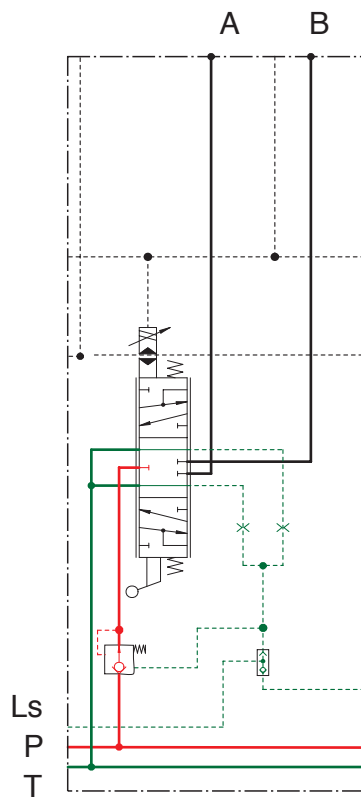
- Direct and dose the flow in order to supply the steering circuit.
- It is a rotating valve.



- 1.** Secondary relief valve.
- 2.** Pump valve.
- 3.** Main pressure relief valve.

- **P** : Pressure.
- **T** : Return to tank.
- **R** : Exit towards the right side.
- **L** : Exit towards the left side.
- **LS** : Pilot line.

Notes: _____

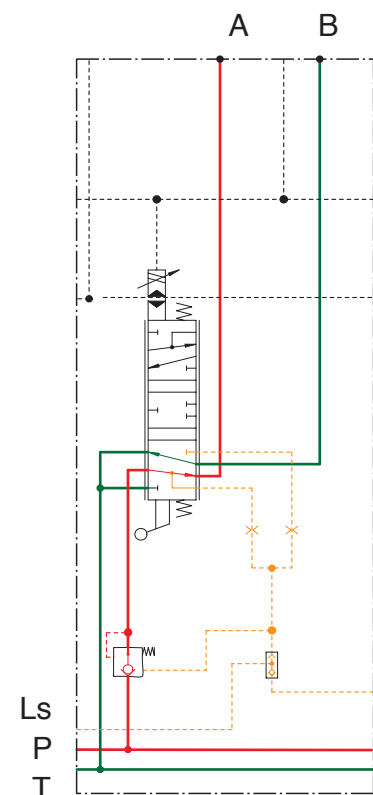
PVG 32 VALVE (ATTACHMENT COMPONENT)*Values for information purposes only.*

Hydraulic pressure arrives at P.

No movement = idle pressure in the P line.

The Ls line is connected to the tank.

The B line is closed.



Hydraulic pressure arrives at P.

Movement (P towards A) = Pressure increase according to receptor requirements.

Simultaneously, pressure increases in line Ls (Pressure Ls = Pressure required by the receptor).

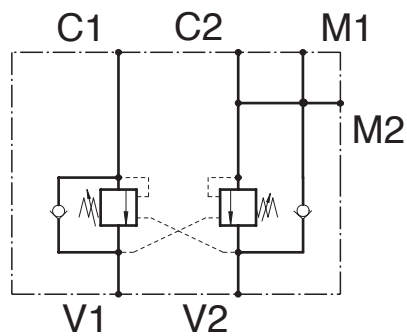
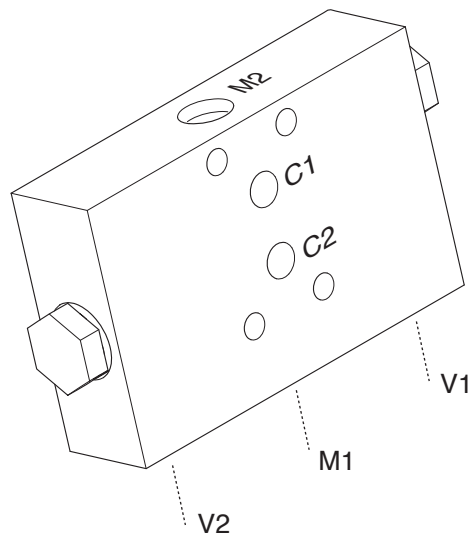
Max. pressure in Ls = Max. pressure in A
= Max pressure in P – Idle pressure.

What is the max. pressure in line B if the main relief valve is calibrated at 200 bar?

What is the role of mark 2 pressure balance?

STABILIZER BALANCING VALVE

Values for information purposes only.

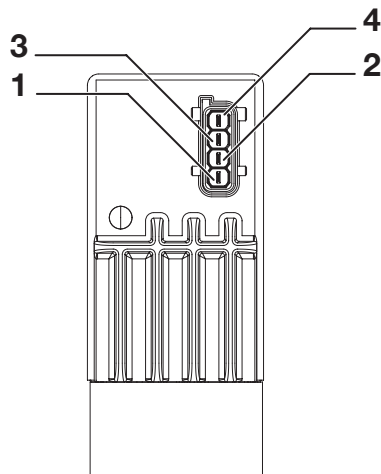


Maximum pressure (bar)	350
Maximum flowrate (L/min)	60

Notes: _____

CONTROL HEAD (LIFTING COMPONENT)

Values for information purposes only.



Pins	Designation	Description
1	V_{in}	Signal voltage: $0,25 \times V_{bat} +$ $0,75 \times V_{bat} +$
2	$V_{bat} +$	Voltage terminal
3	V_{bat-}	Chassis
4	Error	

Fill in the below table:

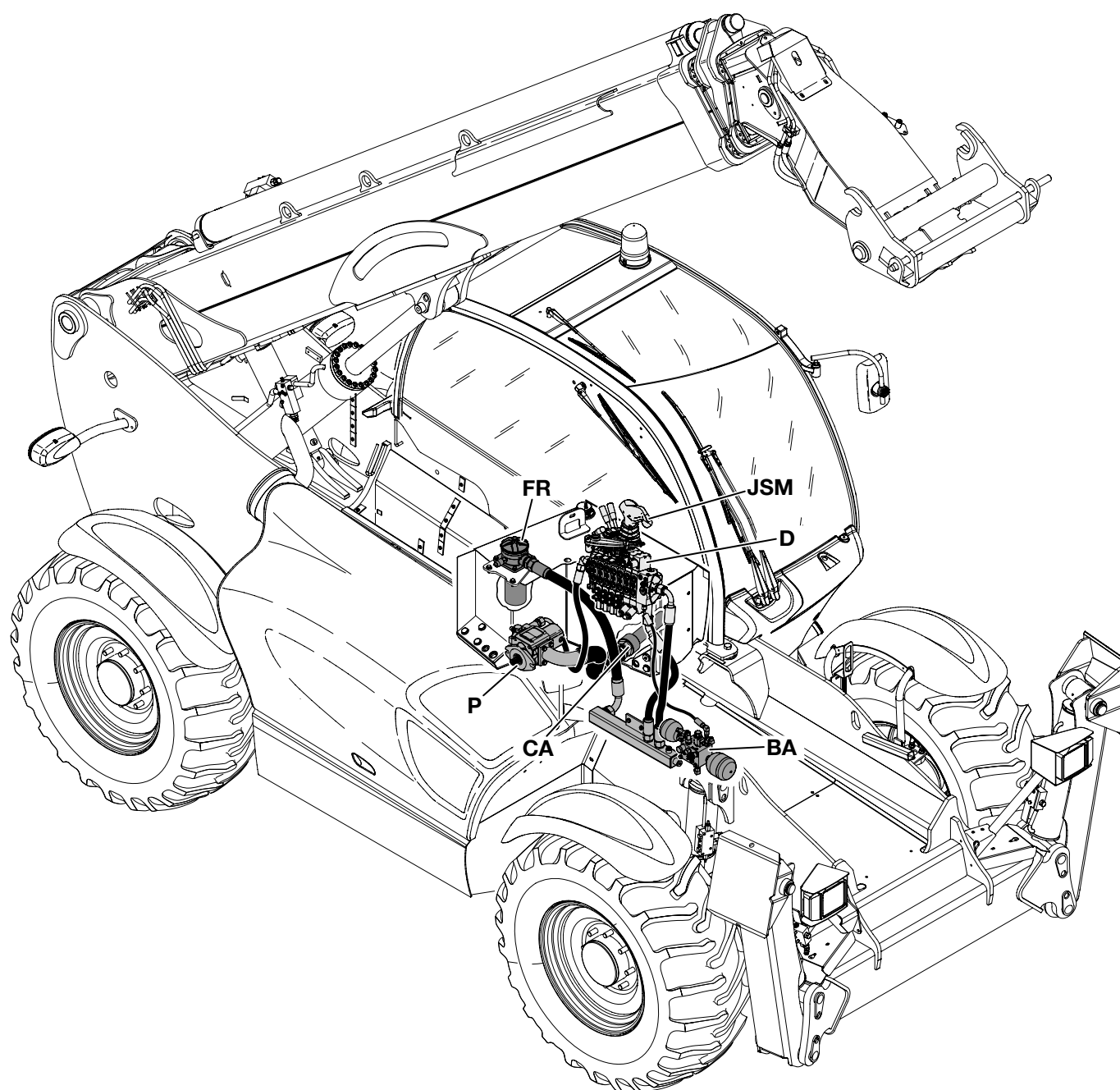
U_{bat}	Min. U_{sc}	U_{sc} in neutral	Max. U_{sc}
14V			

What is the function of the supply LED?

MT 1840 R PRIVILEGE

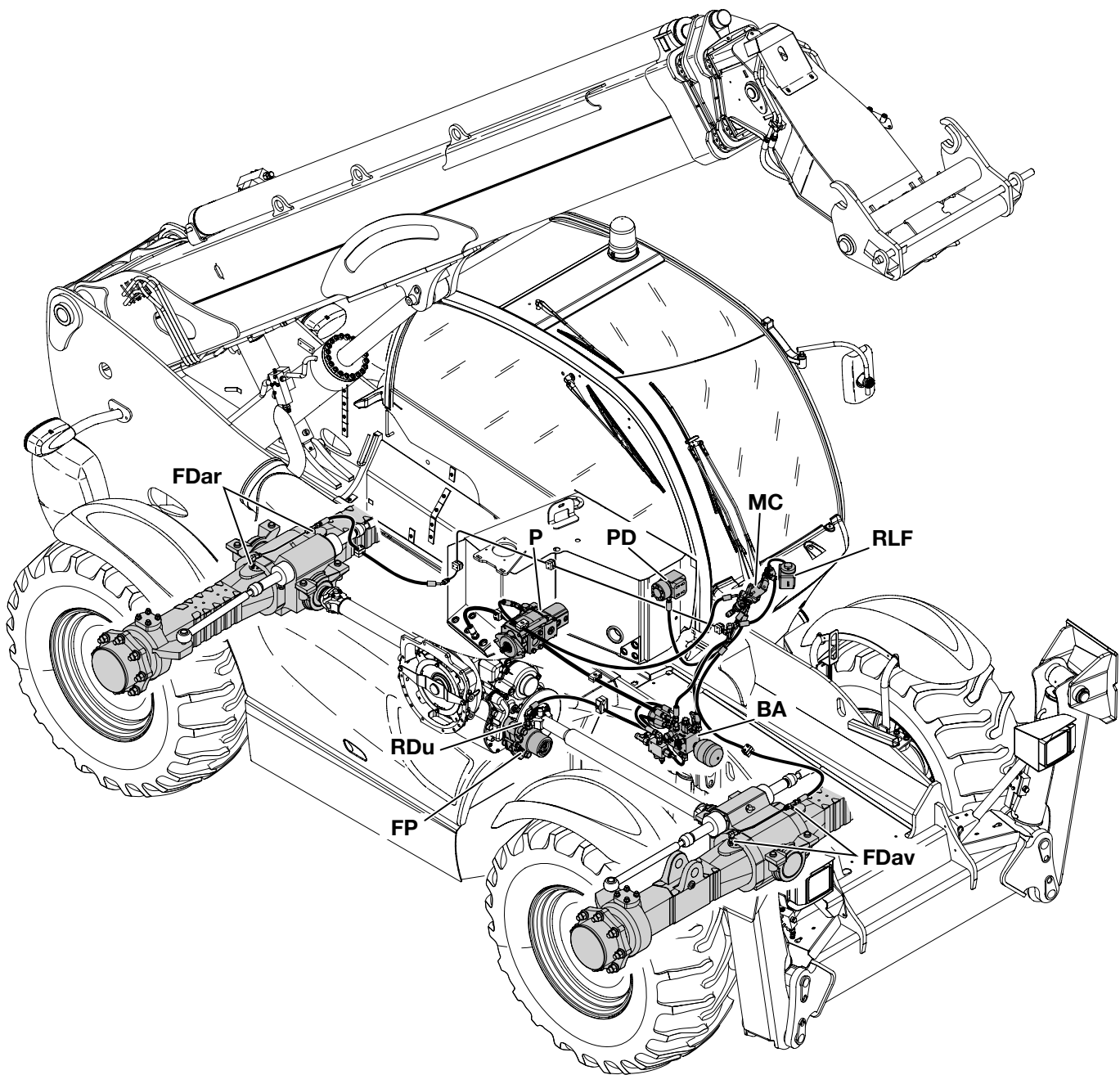
	pages
– Key	.D3
– Diagram	.D5

1 – MAIN HYDRAULIC CIRCUIT

**MT1436 R**

4 – BRAKE HYDRAULIC CIRCUIT

70



MT 1440

MT 1440 A PRIVILEGE

pages

– Key D3

– Circuit D5

Hydraulic circuits

- 1 - Main

2 - Telescoping lift

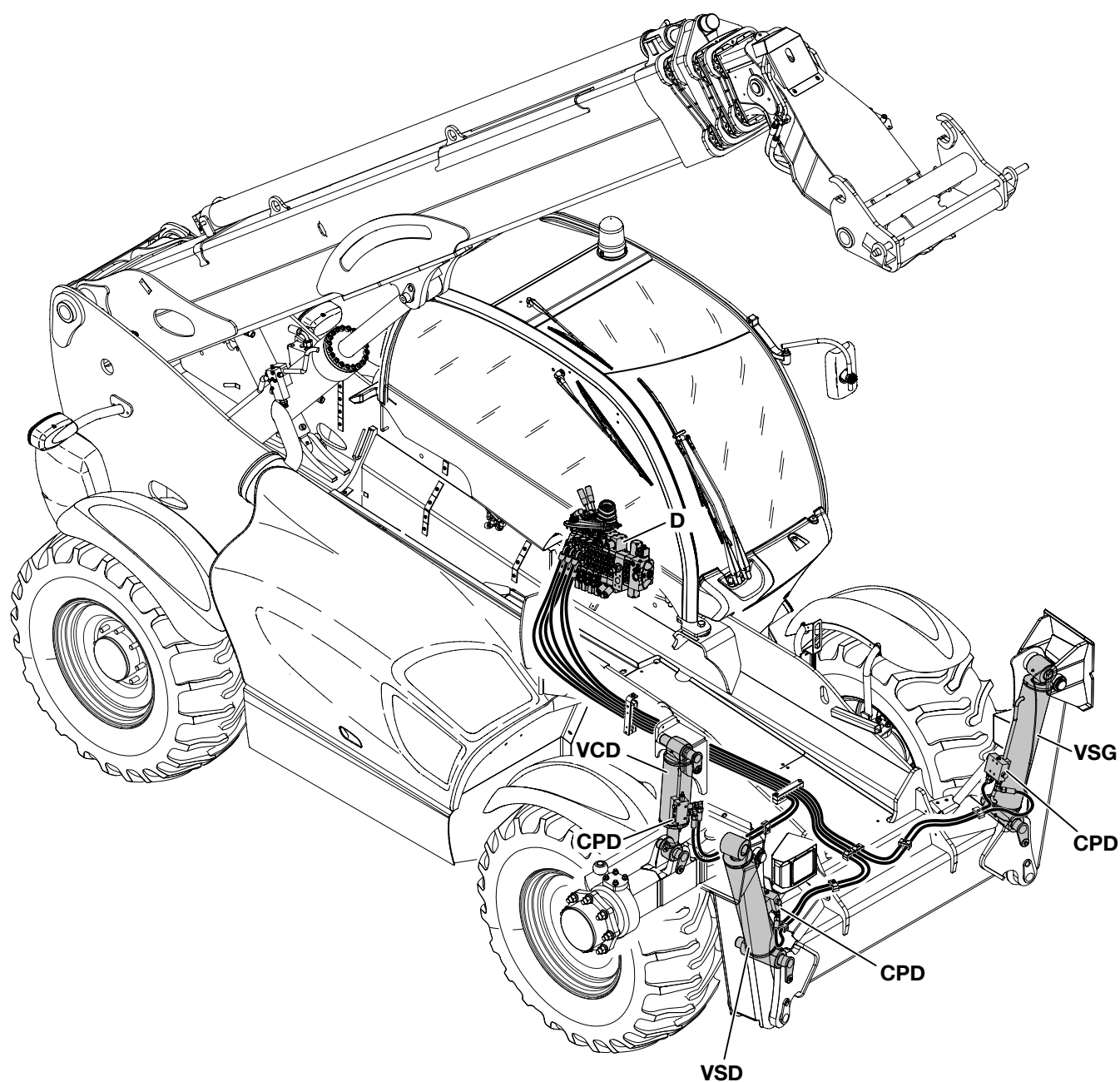
3 - Stabilizer - Slope corrector
- 4 - Brake

5 - Steering

6 - Cooling

HYDRAULIC CIRCUIT KEY (MT 1840 R)								
Item	Designation	Representation on circuit						Electric code equivalence
		1	2	3	4	5	6	
BA	FEED BLOCK + ACCUMULATOR	x			x	x	x	
BF1	FUNCTION BLOCK (VT1)		x					
BF1.2.3	FUNCTION BLOCK		x					
BF2.3	FUNCTION BLOCK (VT2 et VT3)		x					
CA	SUCTION STRAINER	x						
CPD	DOUBLE PILOT VALVE (Slope corrector cylinder)			x				
CPD	DOUBLE PILOT VALVE (Right hand and left hand stabilizer cylinders)			x				
CSP	PILOT SAFETY VALVE (Lift cylinder)		x					
CSP	PILOT SAFETY VALVE (Tilt cylinder)		x					
D	9 COMPONENTS VALVE	x	x	x				
D3	3 POSITIONS STEERING VALVE					x		
Fdar	REAR BRAKE DISC				x			
Fdav	FRONT BRAKE DISC				x			
FP	NEGATIVE BRAKE				x			
FR	RETURN FILTER	x						
JSM	HYDRAULIC CONTROL LEVER	x						
MC	MASTER CYLINDER				x			
MR	COOLER MOTOR		x				x	
P	HYDRAULIC PUMP	x			x	x	x	
PD	STEERING PUMP				x	x		
R	HYDRAULIC TANK						x	
RDU	UNDIRECTIONAL FLOWRATE REDUCTOR GEAR				x			
RF	OIL COOLER		x				x	
RLF	BRAKE FLUID TANK				x			
VC	COMPENSATING CYLINDER		x					
VCD	SLOPE CORRECTOR CYLINDER			x				
Vdar	REAR STEERING CYLINDER					x		
Vdav	FRONT STEERING CYLINDER					x		
VI	TILT CYLINDER		x					
VIC	COMPENSATION INSULATION VALVE		x					
VL	LIFT CYLINDER		x					
VSD	RIGHT HAND STABILIZER CYLINDER			x				
VSG	LEFT HAND STABILIZER CYLINDER			x				
VT1	1 TELESCOPING CYLINDER		x					
VT2	2 TELESCOPING CYLINDER		x					
VT3	3 TELESCOPING VALVE		x					

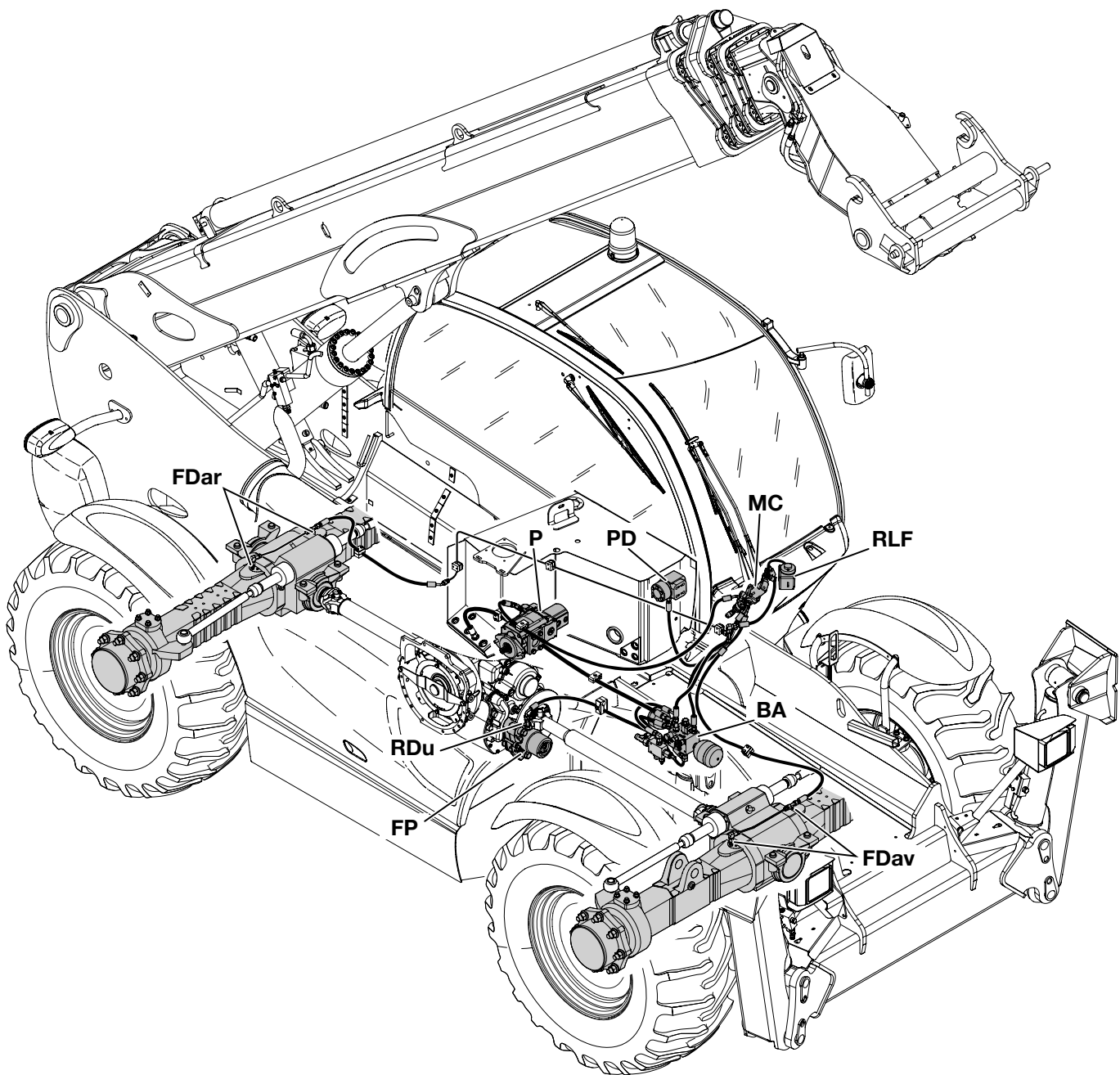
3 – STABILIZER HYDRAULIC CIRCUIT – SLOPE CORRECTOR



MT 1840

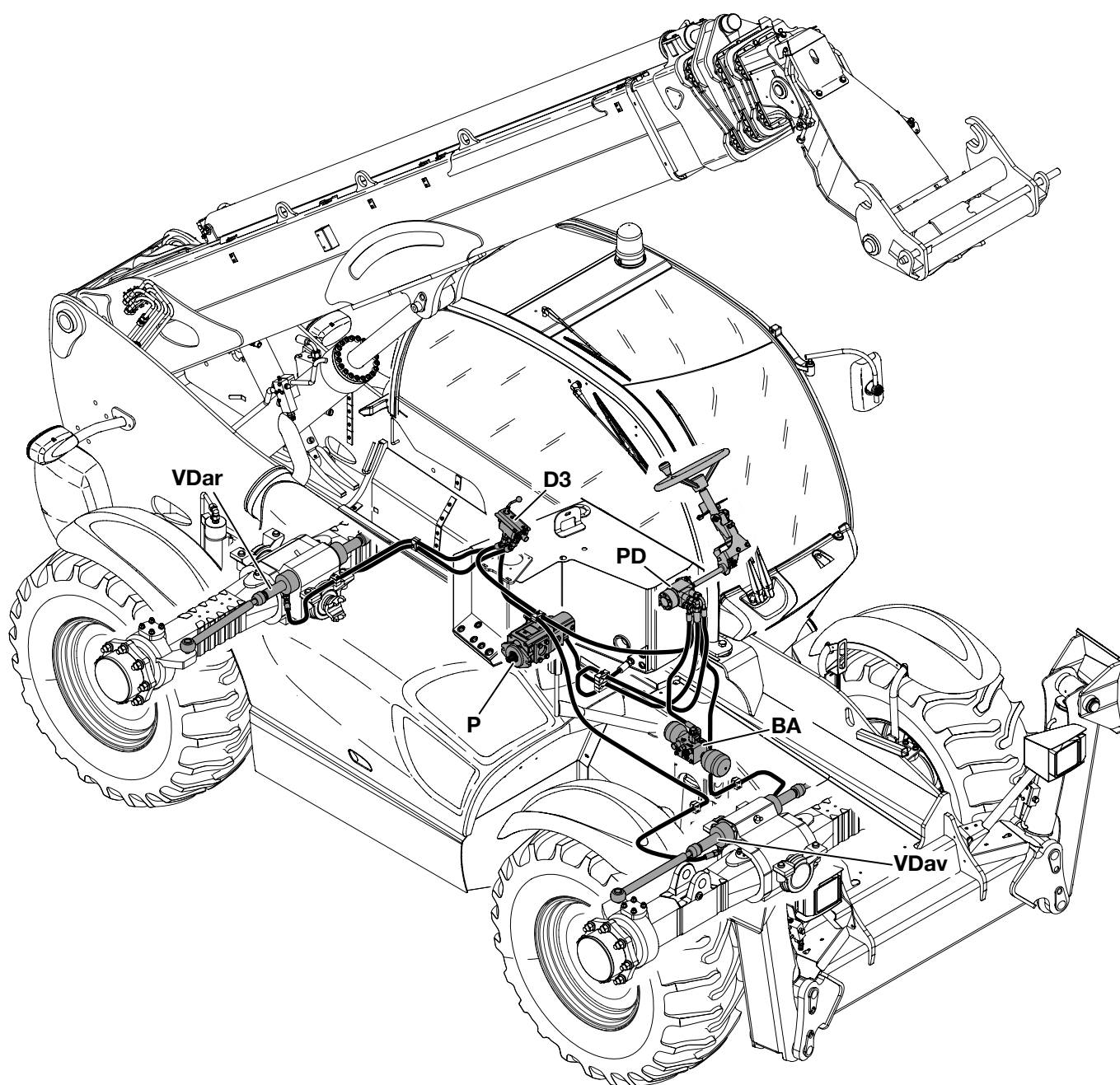
4 – BRAKE HYDRAULIC CIRCUIT

70

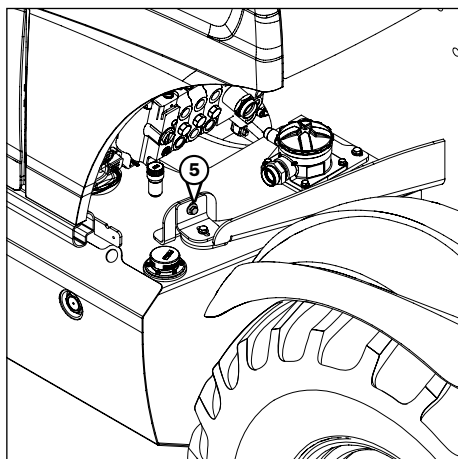


MT 1840 EP

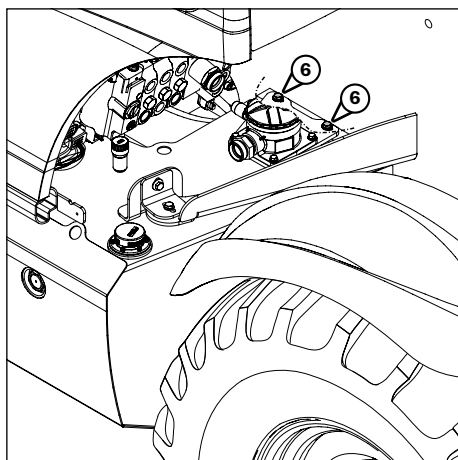
5 – STEERING HYDRAULIC CIRCUIT



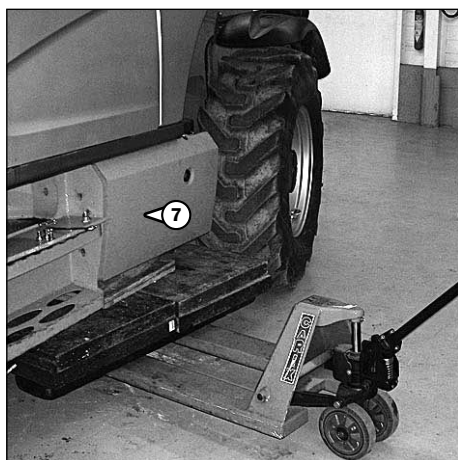
MT 1840 A



Unscrew the screw (Item 5).

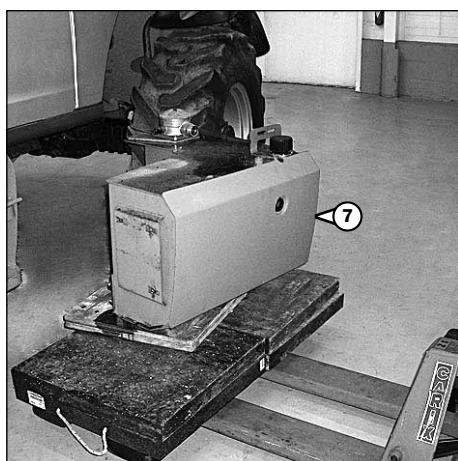


Unscrew the 2 screws (Item 6).

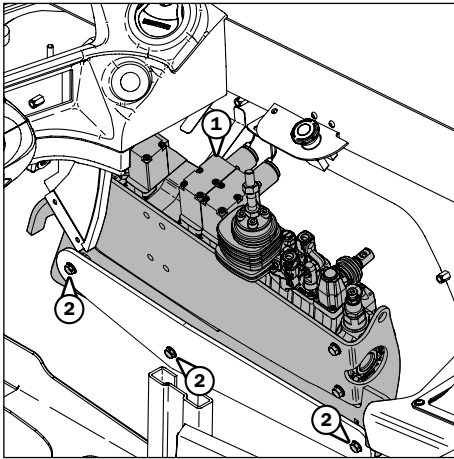


Place a pallet truck under the oil tank (Item 7).

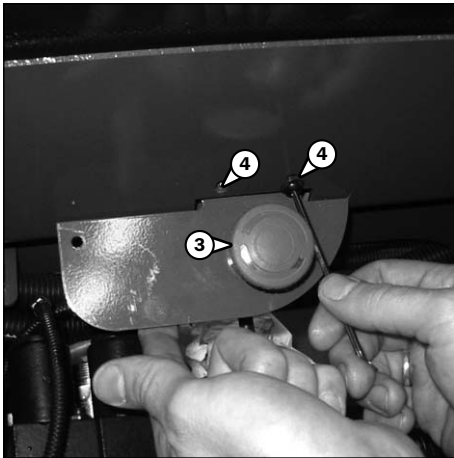
Remove all the screws.



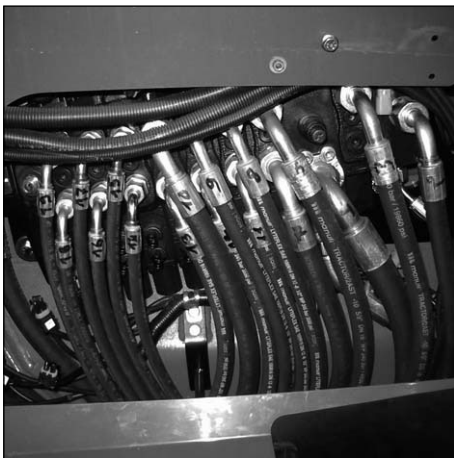
Remove the oil tank (Item7).



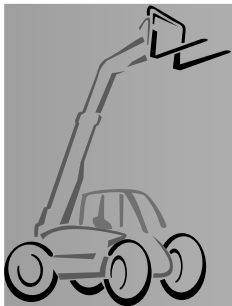
Fix the valve assembly and the valve bracket (Item 1) by screwing the three screws (Item 2) .



Refit the emergency stop (Item 3) on the cab, by screwing the two screws (Item 4).
Connect the electrical connector.



Connect the hydraulic hoses.



BRAKE REMOVAL

	pages
- Parking brake	
Brake pads	3
Negative brake block	4

TRIPLEX (MT 14 METERS):

Consisting of 3 components:

- 1 FIXED
- 2 MOBILE

Deployment:

Deployment of the Triplex boom is controlled simultaneously.

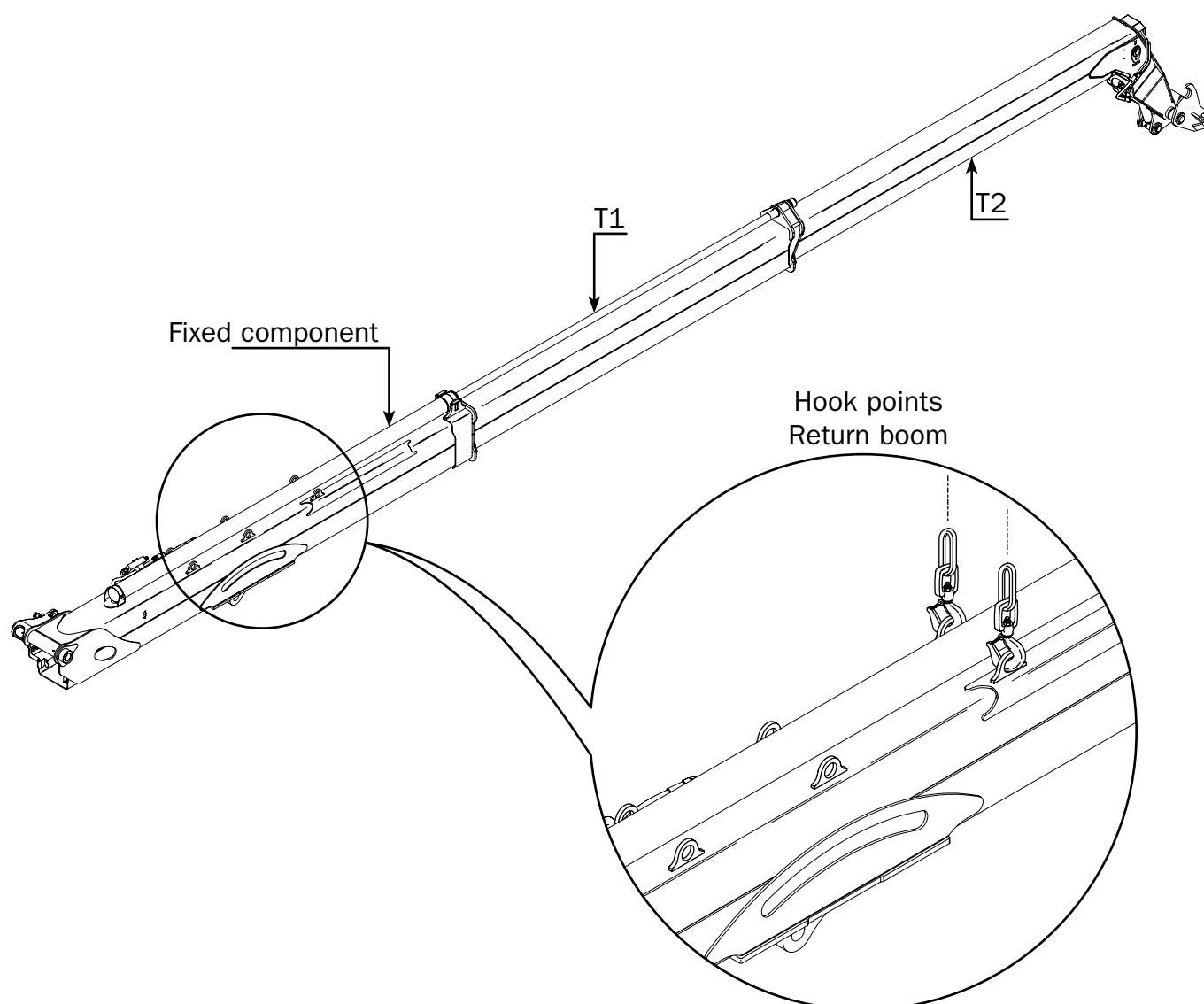
T1 AND T2 EXTEND AT THE SAME TIME.

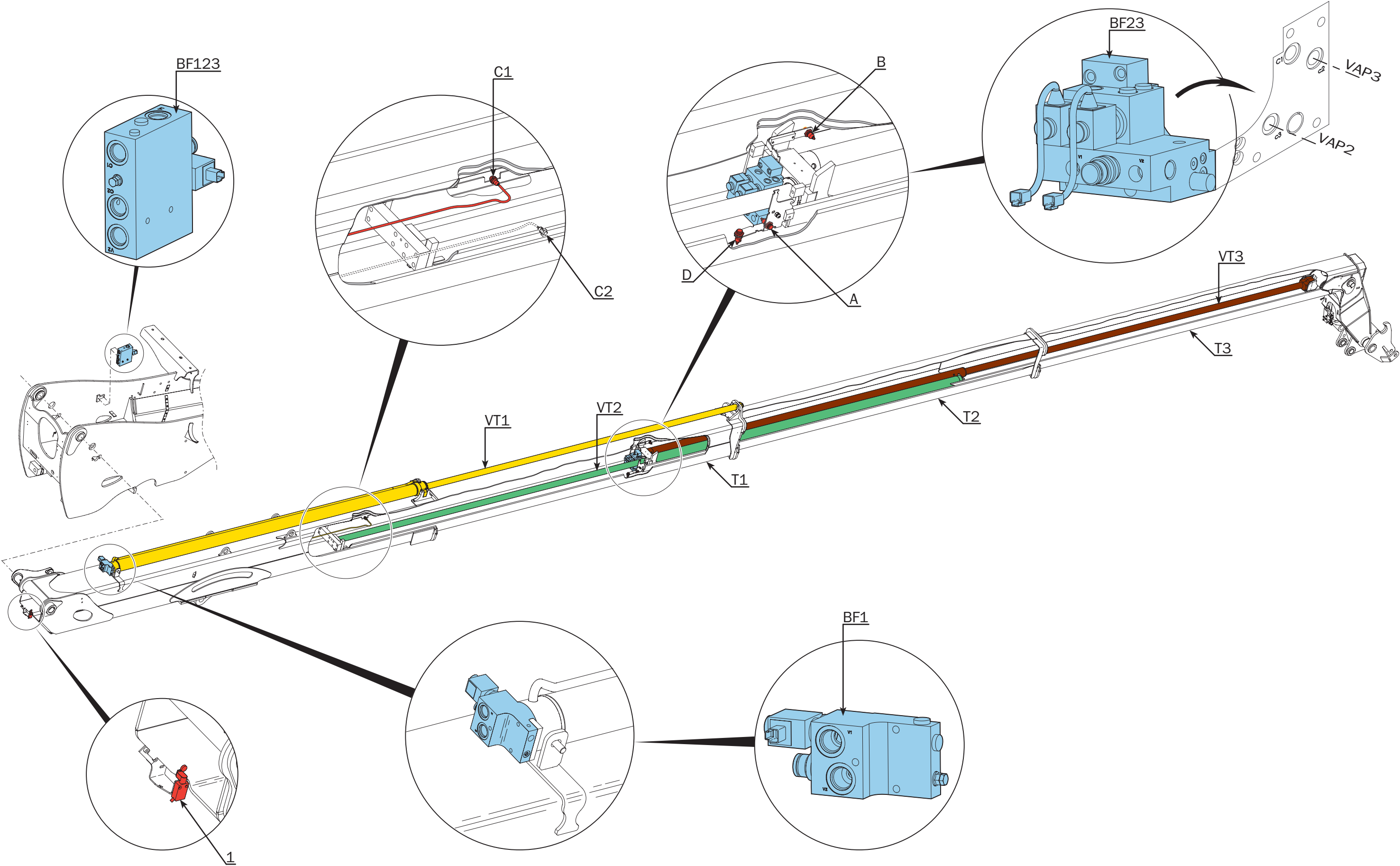
Machines equipped with a Triplex boom:

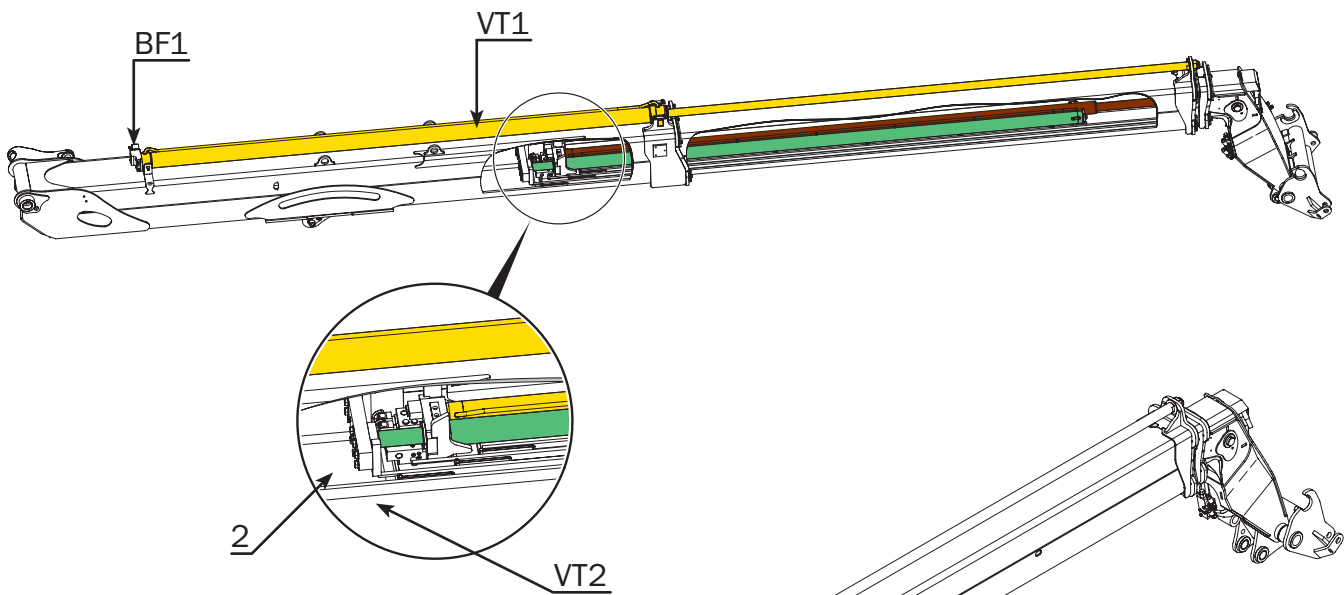
- | | |
|---------------------|---------------------|
| - MT 1436 R | - MT 1440 H |
| - MT 1440 | - MT 1440 HA |
| - MT 1440 EP | |
| - MT 1440 A | |

Boom weight:

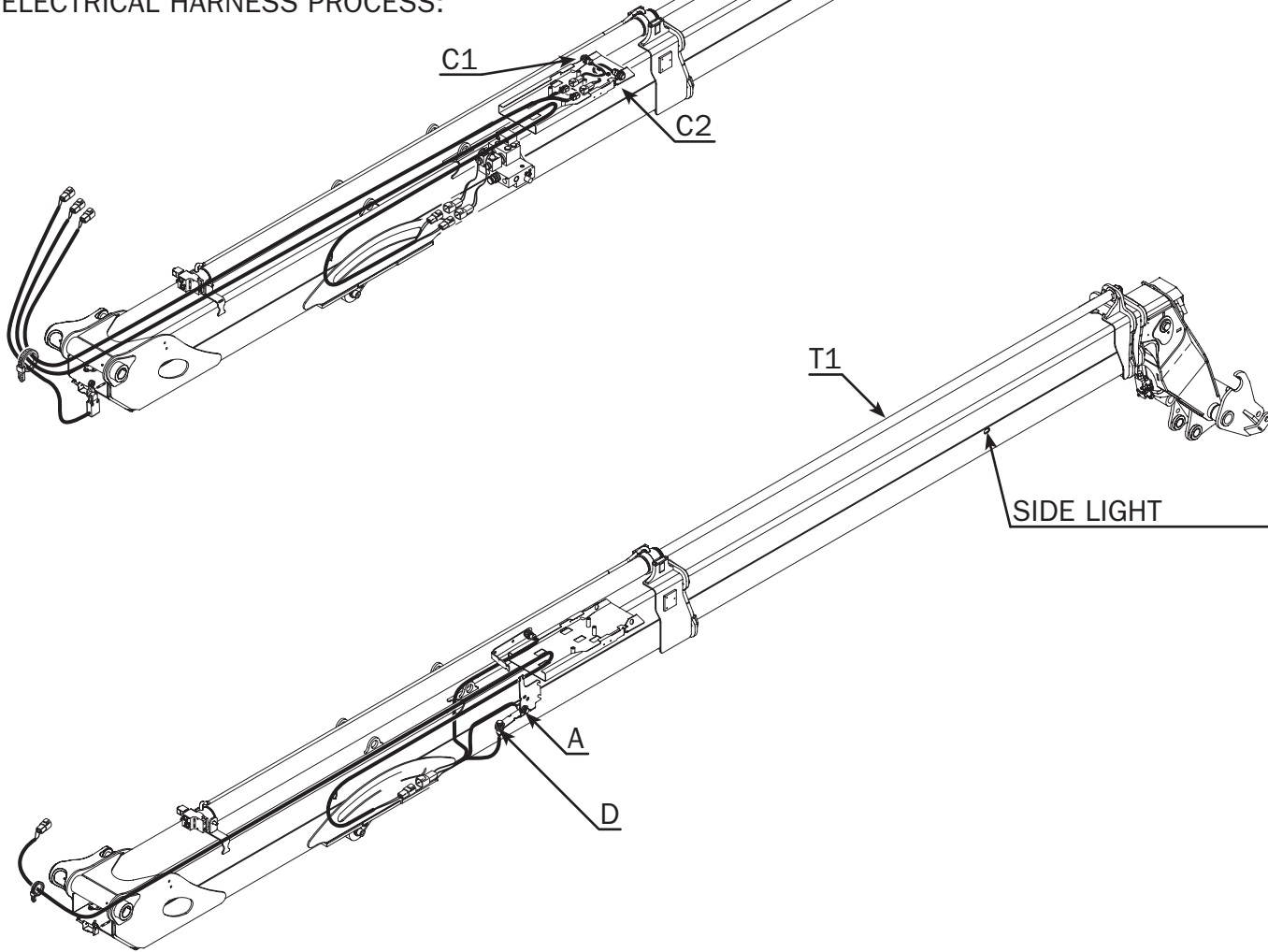
- 2 710 KG

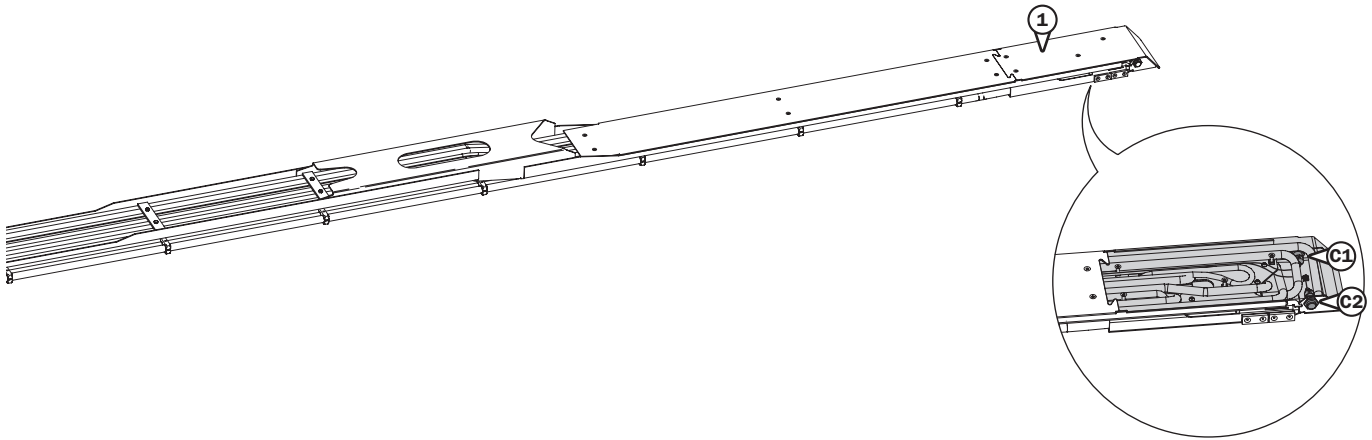






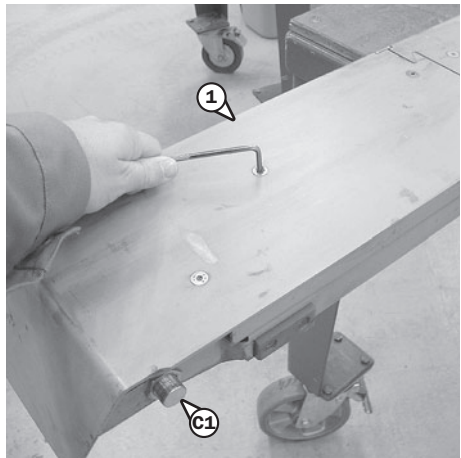
ELECTRICAL HARNESS PROCESS:



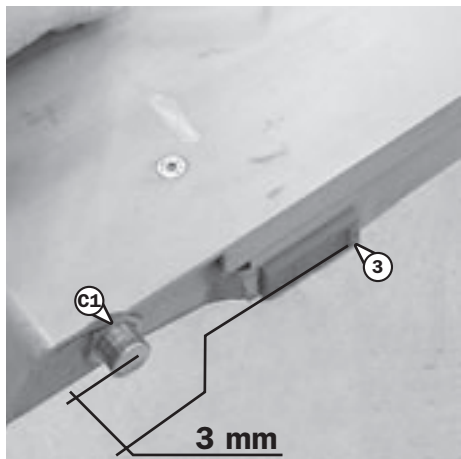
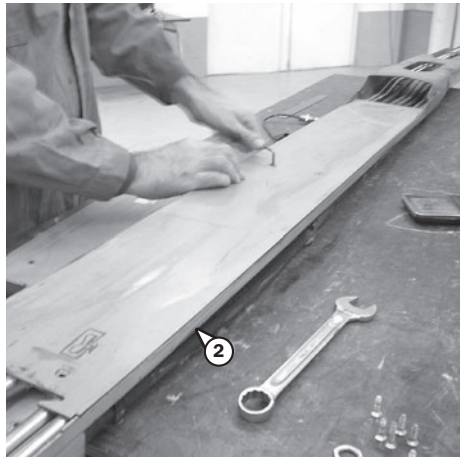


REMOVE THE INDUCTIVE SENSORS « C1 » AND « C2 »

The inductive sensors « C1 » and « C2 » are accessible once the front plate of the channel tube (Item1) has been removed.



The plate (Item 2) facilitates access and replacement of rigid pipework.



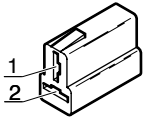
! Important:
During refitting of the channel tube inside the boom, make sure there is 3mm length between the inductive sensors surface C1, C2 and the pad surface (Item 3)



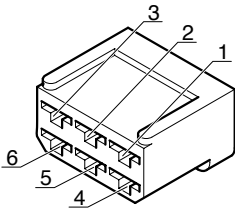
ELECTRIC CHARACTERISTICS AND SPECIFICATIONS

	Pages
– MT1436 R Privilege	.A
– MT1440 Privilege	.B
– MT1440 EP + A Privilege	.C
– MT1840 R Privilege	.D
– MT1840 Privilege	.E
– MT1840 EP + A Privilege	.F
– Allocation of Computers/Trucks	.G
– Manimux Cluster Inlets/outlets	.H
– Manimux Power Inlets/outlets	.I
– Electrical component technical sheets	.J

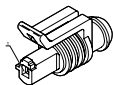
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X28	1	127	GREY	0,6	X11/4
	2	160	BLACK	0,6	M1 Cab Earth



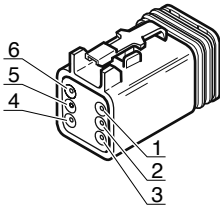
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X29	1	152	BLACK	4	M1 Cab Earth
	2	6	YELLOW	4	BF3 Module1/F4
	3	102	GREY	0,6	X110/2
	4		GREY	0,6	BF3 Module3/K6
	5		GREY	0,6	X16/7
	6		GREY	0,6	X16/8



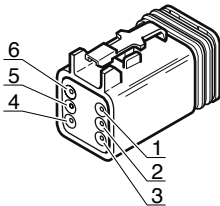
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X30		15	GREEN	1	X23/4



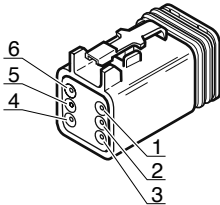
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X31	1	211	GREEN	1	X149/72
	2	50	GREEN	1	X37/1
	3	55	GREEN	1	X149/15
	4	58	BLACK	1	M3 Chassis Earth
	5	54	GREEN	1	X149/79
	6	56	GREEN	1	X149/73



Item	Pos	Wire N°	Color	Section (mm2)	Towards
X32	1	9	GREEN	1	X149/74
	2	10	GREEN	1	X38-1
	3	11	GREEN	1	X149/17
	4	12	BLACK	1	M3 Chassis Earth
	5	13	GREEN	1	X149/42
	6	16	GREEN	1	X149/78

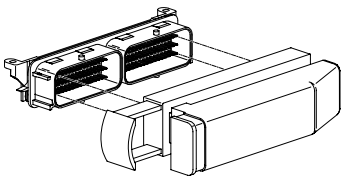


Item	Pos	Wire N°	Color	Section (mm2)	Towards
X35	1	131	BLACK	1	M2 Chassis Earth
	2	132	GREEN	1	X149/63
	3	133	GREEN	1	X149/31
	4	134	GREEN	1	X149/14
	5	135	GREEN	1	X149/43
	6		PLUG	114017	



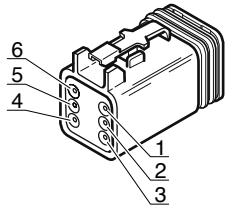
X148 (continuation)	78	107	GREEN	1	X55-A
	79	106	GREEN	1	X55-C
	80	22	GREEN	1	X100-6
	81				
	82	179	GREY	0,6	X67-8
	83	37	GREY	0,6	X134-1
	84	38	GREY	0,6	X134-2
	85	173	GREY	0,6	X67-2
	86	174	GREY	0,6	X67-3
	87	175	GREY	0,6	X67-4
	88	176	GREY	0,6	X67-5
	89	232	GREY	0,6	X67/10
	90	Shielded cable	WHITE	0,5	X110-7

Item	Pos	Wire N°	Color	Section (mm2)	Towards
X149	1				
	2				
	3	168	GREY	0,6	X85-1
	4	164	GREY	0,6	X81-1
	5	158	GREY	0,6	X84-1
	6				
	7				
	8				
	9	227	GREY	0,6	X133-1
	10	221	GREY	0,6	X58-2
	11	113	GREY	0,6	X65-1
	12				
	13	115	GREY	0,6	X65-3
	14	134	GREEN	1	X35-4
	15	55	GREEN	1	X31-3
	16	121	GREEN	1	X36-4
	17	11	GREEN	1	X32-3
	18	84	GREY	0,6	X66-2
	19	108	GREY	0,6	X58-1
	20	229	GREY	0,6	X133-2
	21				
	22				
	23				
	24	68	GREY	0,6	X110-9
	25				
	26				
	27	111	GREY	0,6	X57-1
	28	184	GREY	0,6	X76-1
	29	224	GREY	0,6	X70-1
	30				
	31	133	GREEN	1	X35-3
	32	85	GREY	0,6	X66-3

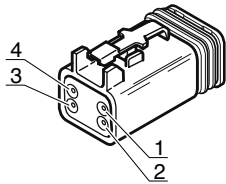


BF3 (Cab)							
Modules	Item	Designation	Pos	Wire N°	Color	Section (mm2)	Towards
Module 2	F21	Roof light		33	GREY	0,6	X16/6
				34	GREY	0,6	X45
	F22	Manimux CLUSTER		35	GREY	0,6	X13/10
				36	GREY	0,6	X13/20
	F23	RC Battery charger		37	YELLOW	2	X112/18
	F24	Front windscreen wiper and auto return motor		38	YELLOW	2	X25/6
	F25	Digicode + permanent		39	GREEN	1	X118/1
	F26	Car radio + BAT		40	GREEN	1	X93/7
	F27	Rear windscreen wiper motor + roof + side windshield auto return		41	WHITE	3	X68/1
	F28	Fault finding plug		42	GREY	0,6	X115/16
	F29	Air conditioning compressor relay		43	GREEN	1	BF3 Module3/K6-3
	F30	Air-conditioning fan motor		44	YELLOW	2	BF3 Module3/K3-3
				45	GREEN	1	BF3 Module4/K12-3
	F31	Relay safety system starting switch K5 pump GO + KSB + EV M/A		46	YELLOW	2	BF3 Module3/K5-3
	F32	Side windshield wiper + option for windshield washer		47	GREEN	1	X15/11
	F33	Fault finding plug		48	GREY	0,6	X115/1
	F40	Free			YELLOW	2	BF3 Module3/K2-3
Module 3	K1		1	93	GREY	0,6	X112/4
			2	179	BLACK	0,6	BF3 Module3/K4-2
				180	BLACK	0,6	BF3 Module4/K12-1
			3	21	YELLOW	2	BF3 Module1/F14
			5	94	YELLOW	2	X112/5
Module 3	K2	Front windscreen wiper intermittence relay.	1	136	GREY	0,6	X13/8
			2	176	BLACK	0,6	BF3 Module3/K6-2
				177	BLACK	0,6	BF3 Module3/K5-2
			3	233	YELLOW	2	EP 11
			5	133	YELLOW	2	X25/4
				129	GREEN	1	X11/7
Module 3	K3	Air-conditioning fan motor relay	1		GREY	0,6	DETAIL A /62
			2	174	BLACK	0,6	M2 Cab Earth
				175	BLACK	0,6	BF3 Moduie3/K6-2
			3	44	YELLOW	2	BF3 Module2/F30
			5	115	YELLOW	2	X15/6
Module 3	K4		1	95	GREY	0,6	X112/6
			2	178	BLACK	0,6	BF3 Module3/K5-2
				179	BLACK	0,6	BF3 Module3/K1-2
			3	1	YELLOW	2	BF3 Module1/F3
			5	96	YELLOW	2	X112/7
Module 3	K5	Stop electrovalve relay, diesel supply pump, cold starter electrovalve	1	137	GREY	0,6	X13/6
			2	177	BLACK	0,6	BF3 Module3/K2-2
				178	BLACK	0,6	BF3 Module3/K4-2
			3	46	YELLOW	2	BF3 Module2/F31
			5	141	YELLOW	2	X118/6

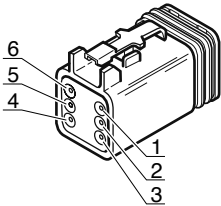
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X32	1	9	GREEN	1	X149/74
	2	10	GREEN	1	X38-1
	3	11	GREEN	1	X149/17
	4	12	BLACK	1	M3 Chassis Earth
	5	13	GREEN	1	X149/42
	6	16	GREEN	1	X149/78



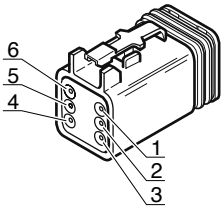
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X33	1	27	GREEN	1	X15A/4
	2	16	BLACK	1	X011
	3	26	GREEN	1	X15A/3
	4	17	BLACK	1	EP2



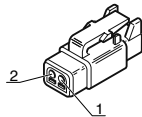
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X35	1	131	BLACK	1	M2 Chassis Earth
	2	132	GREEN	1	X149/63
	3	133	GREEN	1	X149/31
	4	134	GREEN	1	X149/14
	5	135	GREEN	1	X149/43
	6		PLUG	114017	



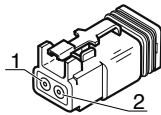
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X36	1	118	BLACK	1	M2 Chassis Earth
	2	119	GREEN	1	X149/60
	3	120	GREEN	1	X149/61
	4	121	GREEN	1	X149/16
	5	122	GREEN	1	X149/48
	6		PLUG	114017	



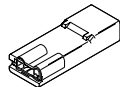
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X37	1	50	GREEN	1	X31-2
	2	51	BLACK	1	M3 Chassis Earth



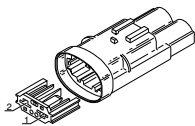
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X38	1	10	GREEN	1	X32-2
	2	17	BLACK	1	M3 Chassis Earth



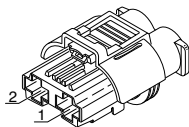
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X39	1	116	GREEN	1	X149/90



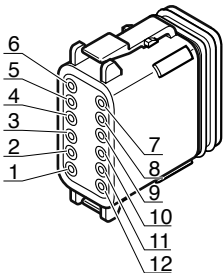
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X116 (Chassis)	1	SUPPLY1	RED	10	EP5
	2		RED	10	EP6



Item	Pos	Wire N°	Color	Section (mm2)	Towards
X116 (Engine)	1	6	RED	10	BF1 Module1/4
	2	7	RED	10	BF1 Module1/3



Item	Pos	Wire N°	Color	Section (mm2)	Towards
X118	1	39	GREEN	1	BF3 Module2/F25
	2	11	GREEN	1	BF3 Module1/F7
	3		PLUG		
	4	12	GREEN	1	BF3 Module1/F7
	5	65	YELLOW	2	X2/7
	6	141	YELLOW	2	BF3 Module3/K5-5
	7	119	YELLOW	2	X138/1
	8	120	YELLOW	2	EP5 (cluster X13/30& X19/1)
	9	123	GREY	0,6	X13/29
	10	124	GREY	0,6	X13/25
	11	125	GREY	0,6	X13/26
	12	148	BLACK	1	M1 Cab Earth



Item	Pos	Wire N°	Color	Section (mm2)	Towards
X119	1				Cluster
	2				Cluster
	3				Cluster
	4				Cluster
	5				Cluster
	6				
	7				
	8				Cluster
	9				
	10				

Item	Wire N°	Color	Section (mm2)	Towards
EP6 (Cab 2)		BLACK	2	X95/2
	62	BLACK	2	EP1

Item	Wire N°	Color	Section (mm2)	Towards
EP7	33	YELLOW	2	X15A/6
		YELLOW	2	X95/1

Item	Wire N°	Color	Section (mm2)	Towards
EP8	31	GREEN	1	X16A/7
		BLUE	2	X95/3

Item	Wire N°	Color	Section (mm2)	Towards
EP9 (Cab 1)		RED	10	X113
	72/73	RED	5	BAR C
	72/73	RED	5	BAR C

Item	Wire N°	Color	Section (mm2)	Towards
EP9 (Cab 2)	32	GREEN	1	X16A/8
		GREEN	2	X95

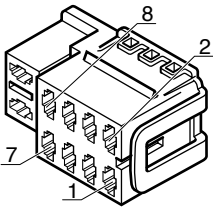
Item	Wire N°	Color	Section (mm2)	Towards
EP10	43	GREEN	1	X59/1
	44	GREEN	1	X107/1
	45	GREEN	1	X108/1
	46	WHITE	3	X68A/1

Item	Wire N°	Color	Section (mm2)	Towards
EP11 (Cab 1)	17	YELLOW	2	BF3 Module1/F12
	236	YELLOW	2	X11/3
	233	YELLOW	2	BF3 Module3/K2-3

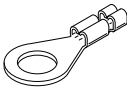
Item	Wire N°	Color	Section (mm2)	Towards
EP11 (Cab 2)	47	WHITE	3	X68A/2
	48	WHITE	3	S42/5
	49	WHITE	3	S43/5

Item	Wire N°	Color	Section (mm2)	Towards
EP20	19	GREEN	1	X100-5
	18	GREEN	1	X100-2
	20	GREEN	1	X148/32

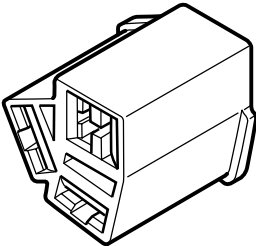
Item	Pos	Wire N°	Color	Section (mm2)	Towards
S43	1	35	YELLOW	2	X15A/8
	5	49	WHITE	3	X68A/2
	5	51	GREY	0,6	S43/10 - Shunt
	9	7	BLACK	0,6	EP1
	10	51	GREY	0,6	S43/5 - Shunt



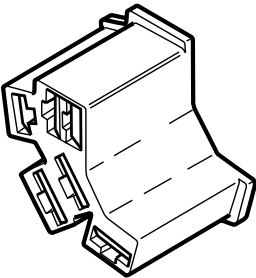
Item	Pos	Wire N°	Color	Section (mm2)	Towards
W		13	GREY	0,6	X23/2



Item	Pos	Wire N°	Color	Section (mm2)	Towards
X1	1	61	WHITE	3	X24/2
		63	WHITE	3	X24/4
	2	60	WHITE	3	X24/1
		62	WHITE	3	X24/3
	3				
	4	64	YELLOW	2	X2/8



Item	Pos	Wire N°	Color	Section (mm2)	Towards
X2	5	66	WHITE	3	SHUNT BAR A
		67	WHITE	3	SHUNT BAR B
	6	69	WHITE	3	SHUNT BAR A
		70	WHITE	3	SHUNT BAR B
	7	65	YELLOW	2	X118/5
	8	64	YELLOW	2	X1/4
	9	51	GREY	0,6	X23/3



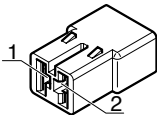
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X3		5	BROWN	7	BF1 Module2/3



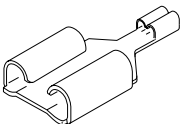
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X4		18	WHITE	3	Ep.2



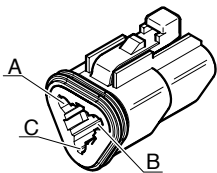
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X5	1		GREY	0,6	D+
	2		WHITE	3	BF1 Module2/12



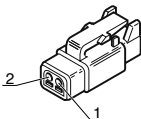
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X6	(+)	28	GREEN	1	X15A/5
		18	BLACK	1	EP2



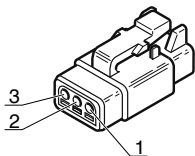
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X69A (Cab 2)	A	62	YELLOW	2	S6/2 - S6/7
	B		BLACK	2	S6/1 - S6/8
	B		BLACK	1	S6/10
	C	69	GREEN	1	S6/9



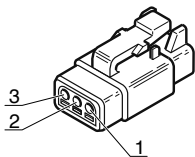
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X70	1	224	GREY	0,6	X150/29
	2	225	BLACK	0,6	M1 Chassis Earth



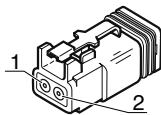
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X87	1	124	BLACK	0,6	M2 Chassis Earth
	2	123	GREY	0,6	X148/23
	3		PLUG		



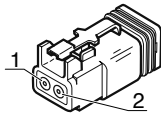
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X88	1	126	BLACK	0,6	M2 Chassis Earth
	2	125	GREY	0,6	X148/53
	3		PLUG		



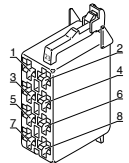
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X91	1	3	YELLOW	1	EP71
	2	4	BLACK	1	M3 Chassis Earth



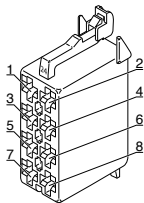
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X92	1	7	GREEN	1	EP90
	2	8	BLACK	1	M1 Chassis Earth



Item	Pos	Wire N°	Color	Section (mm2)	Towards
X93	4	15	GREEN	1	BF3 Module1/F10
	7	40	GREEN	1	BF3 Module2/F26
	8	151	BLACK	1	M1 Cab Earth



Item	Pos	Wire N°	Color	Section (mm2)	Towards
X94	1	74	GREY	0,6	X16/1
	2	75	GREY	0,6	X16/2
	7	76	GREY	0,6	X16/3
	8	77	GREY	0,6	X16/4



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X149 (continuation)	26				
	27	111	GREY	0,6	X57-1
	28				
	29	224	GREY	0,6	X70-1
	30				
	31	133	GREEN	1	X35-3
	32	85	GREY	0,6	X66-3
	36				
	37				
	38				
	39				
	40				
	41	83	GREY	0,6	X66-1
	42	13	GREEN	1	X32/5
	43	135	GREEN	1	X35/5
	44				
	45	64	GREY	0,6	X110-2
	46	63	GREY	0,6	X110-1
	47				
	48	122	GREEN	1	X36/5
	49	114	GREY	0,6	X65-2
	50				
	51				
	52				
	53				
	54				
	55				
	56				
	57				
	58	405	GREEN	1	X160-2
	59	76	YELLOW	2	X110-14
	60	119	GREEN	1	X36/2
	61	120	GREEN	1	X36/3
	62	77	GREEN	1	X110-15
	63	132	GREEN	1	X35/2
	65	246	GREEN	1	X40-4
	66	250	GREEN	1	X40-8
	67	244	GREEN	1	X40-2
	68	243	GREEN	1	X40-1
	69	72	GREY	0,6	X110-10
	70	223	GREEN	1	EP90
	71				
	72	211	GREEN	1	X31/5
	73	56	GREEN	1	X31/6
	74	11	GREEN	1	X149/77
	75	247	GREEN	1	X40-5
	76	248	GREEN	1	X40-6
	77	528	GREEN	1	EP71
	78	16	GREEN	1	X32/6

Item	Wire N°	Color	Section (mm2)	Towards
EP6 (Cab 2)		BLACK	2	X95/2
	62	BLACK	2	EP1

Item	Wire N°	Color	Section (mm2)	Towards
EP7 (Cab 1)	211	GREEN	1	X111/2
	212	GREEN	1	X199/2
	214	GREY	0,6	X23/12

Item	Wire N°	Color	Section (mm2)	Towards
EP7 (Cab 2)	33	YELLOW	2	X15A/6
		YELLOW	2	X95/1

Item	Wire N°	Color	Section (mm2)	Towards
EP8	31	GREEN	1	X16A/7
		BLUE	2	X95/3

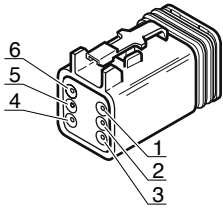
Item	Wire N°	Color	Section (mm2)	Towards
EP9 (Cab 1)	71	RED	10	X113
	72	RED	5	BAR C
	73	RED	5	BAR C

Item	Wire N°	Color	Section (mm2)	Towards
EP9 (Cab 2)	32	GREEN	1	X16A/8
		GREEN	2	X95

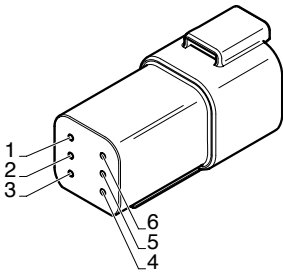
Item	Wire N°	Color	Section (mm2)	Towards
EP10 (Cab 1)	222	YELLOW	2	X138-2
	224	YELLOW	2	X19-2
	220	GREEN	1	X197-4
	221	GREEN	1	X199-3
	223	GREY	0,6	X23-10

Item	Wire N°	Color	Section (mm2)	Towards
EP10 (Cab 2)	43	GREEN	1	X59/1
	44	GREEN	1	X107/1
	45	GREEN	1	X108/1
	46	WHITE	3	X68A/1

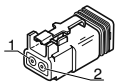
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X15 (Cab 1)	1	116	GREEN	1	X12/1
	2	117	GREEN	1	X11/2
	3	41	YELLOW	2	BF3 Module2/F27
	4	99	GREEN	1	X110/15
	5	78	GREY	0,6	X110/10
	6	33	GREY	0,6	BF3 Module2/F21



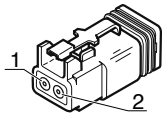
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X15A (Cab 2)	1	24	GREEN	1	X59/3
	2	25	GREEN	1	X59/2
	3	46	GREEN	1	X59/1
	4	28	GREEN	1	X6
	5	29	GREEN	1	X50
	6	30	GREEN	1	X50



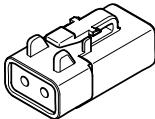
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X17	1	20	GREY	0,6	X23/6



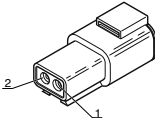
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X18	1	26	GREY	0,6	X23/7
	2	25	BLACK	0,6	Engine Earth



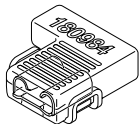
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X19 (Cab 1)	1	121	WHITE	3	EP5
	2	140	YELLOW	2	X138/2



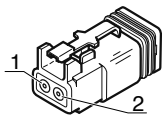
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X19 (I.C. engine)	1	19	WHITE	3	BF1 Module2/6
	2	24	YELLOW	2	Ep.1



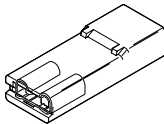
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X20		16	GREY	0,6	X23/5
		17	BLACK	0,6	Engine Earth



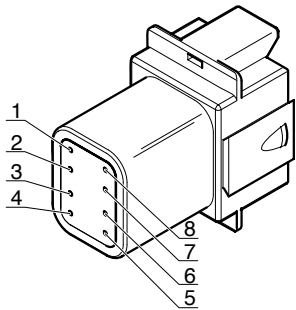
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X21	1	202	GREEN	1	X148/60
	2	203	BLACK	1	M2 Chassis Earth



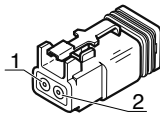
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X22	1	139	GREY	0,6	X13/35
	2	159	BLACK	0,6	M1 Cab Earth



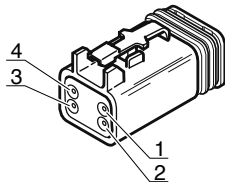
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X122	1		BROWN		X125/1
	2		BROWN		X125/2
	3		BROWN		X125/3
	4				
	5				
	6		BLUE		X125/6
	7		BLUE		X125/7
	8		BLUE		X125/8



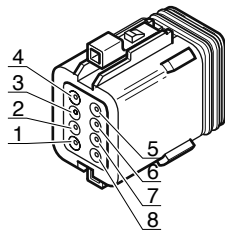
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X123	1	240	GREEN	1	X148/61
	2	241	GREEN	1	X149/58



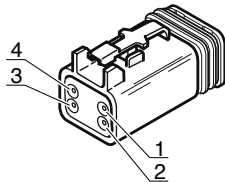
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X124	1	270	GREEN	1	EP61
	2	32	GREEN	1	X151/09
	3	272	GREEN	1	X151/10
	4	271	GREEN	1	EP61



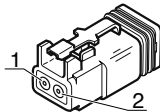
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X125	1	28	GREEN	1	EP40
	2	29	GREEN	1	EP40
	3	30	GREEN	1	EP40
	4		PLUG	PLUG	
	5		PLUG	PLUG	
	6	25	GREEN	1	X150/23
	7	26	GREEN	1	X150/53
	8	27	GREEN	1	X150/54



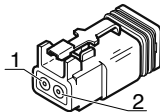
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X126	1	33	BLACK	1	M3 Chassis Earth
	2	34	BLACK	1	M3 Chassis Earth
	3	36	GREEN	1	X151/77
	4	35	GREEN	1	X151/16



Item	Pos	Wire N°	Color	Section (mm2)	Towards
X127	1	59	GREEN	1	X151/48
	2	60	BLACK	1	M3 Chassis Earth



Item	Pos	Wire N°	Color	Section (mm2)	Towards
X128	1	61	GREEN	1	X151/79
	2	62	BLACK	1	M3 Chassis Earth

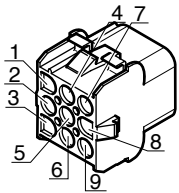


CAN

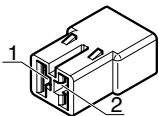
CAN A					
Item	Wire N°	Color	Section (mm2)	Joins	End points
MULTICONDUCTOR CABLE 1		BROWN	0,5	X110-5	X150/41
		GREEN	0,5	X110-6	X150/42
		WHITE	0,5	X110-7	EPCANA R
		WHITE	0,93	X110-8	X150/11

Item	Wire N°	Color	Section (mm2)	Joins	End points
MULTICONDUCTOR CABLE 2		BROWN	0,5	X148/41	X150/71
		GREEN	0,5	X148/42	X150/72
		WHITE	0,5	X148/90	EPCANA R
		WHITE	0,93	X148/11	CUT

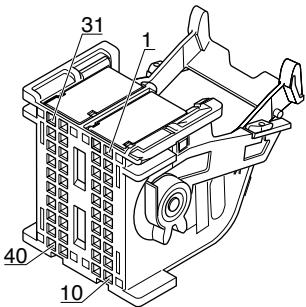
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X11	1	19	YELLOW	2	BF3 Module1/F13
	2	117	GREEN	1	X15/2
	3	236	YELLOW	2	EP 11
	4	127	GREY	0,6	X28/1
	5	18	GREEN	1	BF3 Module1/F12
	6	128	GREY	0,6	X27/1
	7	129	YELLOW	2	BF3 Module3/K2-5
	8	130	YELLOW	2	X25/5
	9	131	GREY	0,6	X13/28



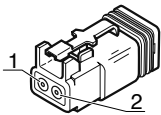
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X12	1	116	GREEN	1	X15/1
	2	132	GREEN	1	X25/3



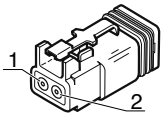
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X13	1	CAN A	BROWN	0,5	X115/6
	3	187	BLACK	0,6	EPCANAM
	4	14	GREY	0,6	F9/M1
	5	49	GREY	0,6	X23/1
	6	137	GREY	0,6	BF3 Module3/K5-1
	8	136	GREY	0,6	BF3 Module3/K2-1
	9	154	BLACK	0,6	M1 Cab Earth
	10	35	GREY	0,6	BF3 Module2/F22
	11	CAN A	WHITE	0,5	X115/14
	20	36	GREY	0,6	BF3 Module2/F22
	21	134	GREY	0,6	X138/4
	24	143	GREY	0,6	X110/7
	25	124	GREY	0,6	X118/10
	26	125	GREY	0,6	X118/11
	27	138	GREY	0,6	X63
	28	131	GREY	0,6	X11/9
	29	123	GREY	0,6	X118/9
	30	122	GREY	0,6	EP5
	31	135	GREY	0,6	X64/1
	32	155	BLACK	0,6	M1 Cab Earth
	34	53	GREY	0,6	X23/5
	35	139	GREY	0,6	X22
	36	54	GREY	0,6	X23/6
	37	50	GREY	0,6	X23/2
	38	107	GREY	0,6	X110/9
	39	118	GREY	0,6	X45/1
	40	55	GREY	0,6	X23/7



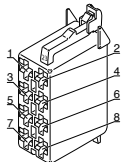
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X91	1	3	YELLOW	1	X149/77
	2	4	BLACK	1	M3 Chassis Earth



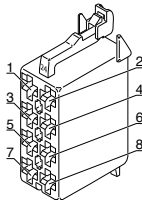
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X92	1	7	GREEN	1	EP90
	2	8	BLACK	1	M1 Chassis Earth



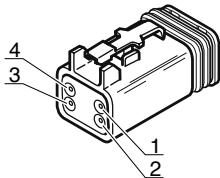
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X93	4	15	GREEN	1	BF3 Module1/F10
	7	40	GREEN	1	BF3 Module2/F26
	8	151	BLACK	1	M1 Cab Earth



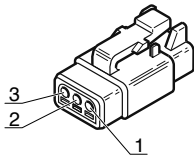
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X94	1	74	GREY	0,6	X16/1
	2	75	GREY	0,6	X16/2
	7	76	GREY	0,6	X16/3
	8	77	GREY	0,6	X16/4



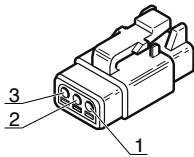
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X95	1	32	GREEN	1	X16A/8
	2	31			X16A/7
	3	33	YELLOW	2	X15A/6
	4		BLACK		X011



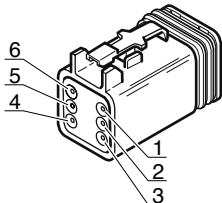
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X96	1	128	BLACK	0,6	M1 Chassis Earth
	2	127	GREY	0,6	X148/24
	3		PLUG		



Item	Pos	Wire N°	Color	Section (mm2)	Towards
X97	1	130	BLACK	0,6	M2 Chassis Earth
	2	129	GREY	0,6	X148/54
	3		PLUG		

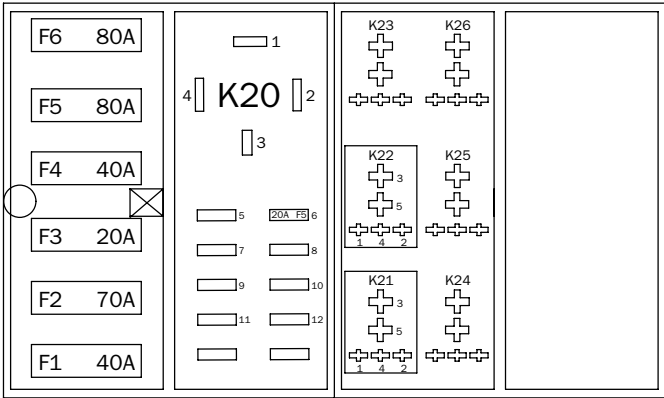
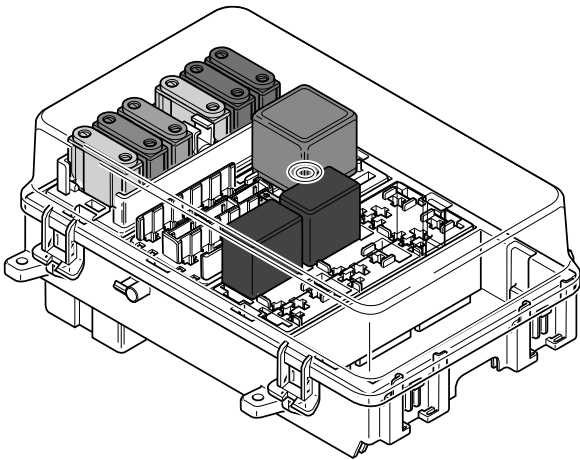


Item	Pos	Wire N°	Color	Section (mm2)	Towards
X100	1	23	GREEN	1	EP91
	2	18	GREEN	1	EP20
	3	21	GREEN	1	X148/50
	4	24	GREEN	1	EP91
	5	19	GREEN	1	EP20
	6	22	GREEN	1	X148/80



X149 (continuation)	22				
	23				
	24	68	GREY	0,6	EP32
	25				
	26				
	27	111	GREY	0,6	X57-1
	28	184	GREY	0,6	X76-1
	29	224	GREY	0,6	X70-1
	30				
	31	133	GREEN	1	X35-3
	32	85	GREY	0,6	X66-3
	33	166	GREY	0,6	X86-1
	34	160	GREY	0,6	X83-1
	35	73	GREY	1	X110-11
	36				
	37				
	38				
	39				
	40				
	41	83	GREY	0,6	X66-1
	42	13	GREEN	1	X32/5
	43	135	GREEN	1	X35/5
	44				
	45	64	GREY	0,6	X110-2
	46	63	GREY	0,6	X110-1
	47				
	48	122	GREEN	1	X36/5
	49	114	GREY	0,6	X65-2
	50				
	51				
	52				
	53				
	54				
	55				
	56				
	57				
	58	241	GREEN	1	X123-2
	59	76	YELLOW	2	X110-14
	60	119	GREEN	1	X36/2
	61	120	GREEN	1	X36/3
	62	77	GREEN	1	X110-15
	63	132	GREEN	1	X35/2
	64	162	GREY	0,6	X82-1
	65	246	GREEN	1	X40-4
	66	250	GREEN	1	X40-8
	67	244	GREEN	1	X40-2
	68	243	GREEN	1	X40-1
	69	72	GREY	0,6	X110-10
	70	223	GREEN	1	EP90

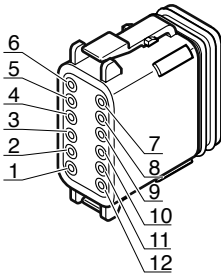
FUSES AND RELAYS



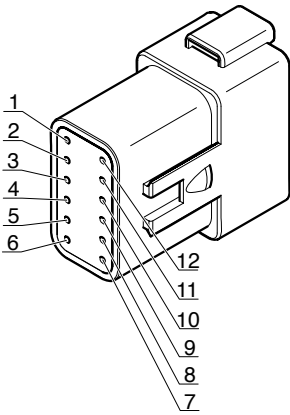
Module M1 Module M2 Module M3

BF1 (Engine bonnet)							
Modules	Item	Designation	Pos	Wire N°	Color	Section (mm2)	Towards
Module 1	F1	BF3 CAB FUSEBOX SUPPLY	1	10	RED	10	X113
	F2	IGNITION SWITCH	2	8	WHITE	3	X24/1
				8 - 1	WHITE	3	X24/2
				9	WHITE	3	X24/3
				9 - 1	WHITE	3	X24/4
	F3	Manimux Power 2	3	7	RED	10	X116/2
	F4	Manimux Power 1	4	6	RED	10	X116/1
	F5	PREHEATING	5	4	BROWN	7	BF1 Module2/1
				43	WHITE	3	BF1 Module2/11
F6	ALTERNATOR	6	3	RED	10	B+	
Module 2	F1						
	F2		12	44	WHITE	3	X5/2
	F3		10	33	WHITE	3	BF1 Module3/K21-3
	F4		8	34	WHITE	3	BF1 Module3/K23-3
	F5	STARTER SOLENOID	6	41	WHITE	3	EP2
	F6						
	F7		11	43	WHITE	3	BF1 Module1/5
	F8		9	32	WHITE	3	X201
	F9		7	31	WHITE	3	X201
	F10		5	21	WHITE	3	X19/1
	K20	PRE-HEATING RELAY	1	4	BROWN	7	BF1 Module1/5
			2	11	GREEN	1	X23/3
			3	5	BROWN	7	X3
			4	12	BLACK	1	Engine Earth
35				BLACK	1	M3-K23/2	

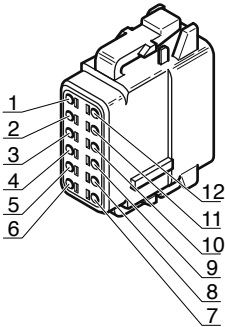
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X15 (Cab 1)	1	116	GREEN	1	X12/1
	2	117	GREEN	1	X11/2
	3	97	GREEN	1	X110/13
	4	98	GREEN	1	X110/14
	5	99	GREEN	1	X110/15
	6	115	YELLOW	2	BF3 Module3/K3 (5)
	7	83	YELLOW	2	X112/14
	8	84	YELLOW	2	X112/15
	9	29	YELLOW	2	F17/M1
	10	30	YELLOW	2	F18/M1
	11	47	GREEN	1	F32/M2
	12	31	GREEN	1	F19/M1



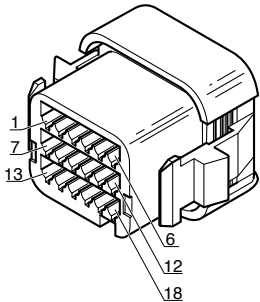
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X15A (Cab 2)	1	24	GREEN	1	X59/3
	2	25	GREEN	1	X59/2
	3	26	GREEN	1	X33/3
	4	27	GREEN	1	X33/1
	5	28	GREEN	1	X6 (+)
	6	33	YELLOW	2	X95/3
	7	34	YELLOW	2	S42/1
	8	35	YELLOW	2	S43/1
	9	55	YELLOW	2	S38/5
	10	57	YELLOW	2	S39/5
	11	29	GREEN	1	S41/2
	12	61	GREEN	1	S40/2



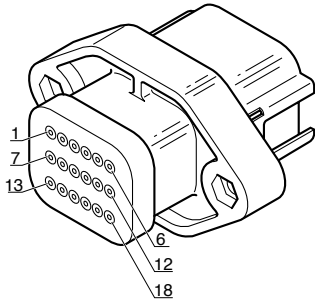
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X16 (Cab 1)	1	74	GREY	0,6	X94/1
	2	75	GREY	0,6	X94/2
	3	76	GREY	0,6	X94/7
	4	77	GREY	0,6	X94/8
	5	78	GREY	0,6	X110/10
	6	33	GREY	0,6	BF3 Module2/F21
	7	79	GREY	0,6	X29/5
	8	80	GREY	0,6	X29/6
	9	81	GREY	0,6	X26/1
	10				plug
	11				plug
	12				plug



Item	Pos	Wire N°	Color	Section (mm2)	Towards
X110 (Cab 1)	1	100	GREY	0,6	X47
	2	102	GREY	0,6	X29/3
	3	103	GREY	0,6	X114/1
	4	104	GREY	0,6	X114/2
	5	CANA	BROWN	0,5	X13/1
	6	CANA	WHITE	0,5	X13/11
	7	143	WHITE	0,6	X13/24
	8	CANA	BLACK	0,6	EPCANAM
	9	107	GREY	0,6	X13/38
	10	78	GREY	0,6	X16/5
	11	200	GREY	0,6	X198/3
	12	201	GREY	0,6	X198/4
	13	97	GREEN	1	X15/3
	14	98	GREEN	1	X15/4
	15	99	GREEN	1	X15/5
	16		PLUG		
	17		PLUG		
	18	106	GREY	0,6	X52

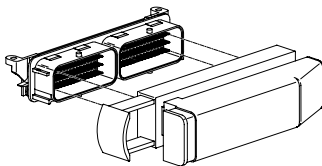


Item	Pos	Wire N°	Color	Section (mm2)	Towards
X111 (Chassis)	1	520	GREEN	1	X195-1
	2	523	GREEN	1	X195-4
	3		BROWN	0,5	X150/43 (CAN ORH H)
	4		WHITE	0,5	X150/44 (CAN ORH L)
	5		PLUG	114017	
	6		PLUG	114017	
	7		PLUG	114017	
	8	529	GREY	0,6	X151/54
	9		PLUG	114017	
	10		PLUG	114017	
	11		PLUG	114017	
	12	533	GREY	0,6	X151/82
	13		98145,452	114017	
	14		PLUG	114017	
	15		PLUG	114017	
	16	530	GREY	0,6	X150/04
	17	531	GREY	0,6	X150/05
	18	532	GREY	0,6	X150/30



X150 (continuation)	35	408	GREY	0,6	X156-2
	41			0,5	X110-5
	42			0,5	X110-6
	43			0,5	X195-2
	44			0,5	X195-5
	45	195	BLACK	2	EARTH POWER SUPPLY
	46	235	RED	2	EP6
	47	236	RED	2	EP6
	48	431	GREY	0,6	X152-6
	49	430	GREY	0,6	X152-5
	50	426	GREY	0,6	X152-1
	53	26	GREEN	1	X125-7
	54	27	GREEN	1	X125-8
	55	518	GREEN	1	X194-4
	56	418	GREY	0,6	X158-4
	57	410	GREY	0,6	X156-4
	58	500	GREY	0,6	X187-1
	61	506	GREEN	1	X190-1
	64	508	GREEN	1	X191-1
	65	406	GREY	0,6	X161-1
	71			0,5	X148/41
	72			0,5	X148/42
	73			0,5	X195-2
	74			0,5	X195-5
	75	194	BLACK	2	EARTH POWER SUPPLY
	76	237	RED	2	EP6
	77	238	RED	2	EP6
	78	414	GREY	0,6	X157-3
	80	433	GREY	0,6	X152-8
	82	419	GREY	0,6	X158-3
	85	259	GREY	0,6	X135-3
	86	260	GREY	0,6	X135-4
	87			1	X192-2
	88			1	X193-1
	90	245	GREY	0,5	EPCANA R

Item	Pos	Wire N°	Color	Section (mm2)	Towards
X151	9	32	GREEN	1	X124-2
	10	272	GREEN	1	X124-3
	12	411	GREY	0,6	X156-3
	13	403	GREY	0,6	X159-3
	16	35	GREEN	1	X126-4
	18	518	GREEN	1	EP70
	19	210	GREEN	1	EP40
	20	31	GREEN	1	EP61
	24	69	GREY	0,6	EP32
	26	401	GREY	0,6	X159-1
	41	511	GREEN	1	X192-2



Item	Wire N°	Color	Section (mm2)	Towards
EP6 (Cab 2)		BLACK	2	X95/2
	62	BLACK	2	EP1

Item	Wire N°	Color	Section (mm2)	Towards
EP7 (Cab 1)	211	GREEN	1	X111/2
	212	GREEN	1	X199/2
	214	GREY	0,6	X23/12

Item	Wire N°	Color	Section (mm2)	Towards
EP7 (Cab 2)	33	YELLOW	2	X15A/6
		YELLOW	2	X95/1

Item	Wire N°	Color	Section (mm2)	Towards
EP8	31	GREEN	1	X16A/7
		BLUE	2	X95/3

Item	Wire N°	Color	Section (mm2)	Towards
EP9 (Cab 1)		RED	10	X113
	72	RED	5	BAR C
	73	RED	5	BAR C

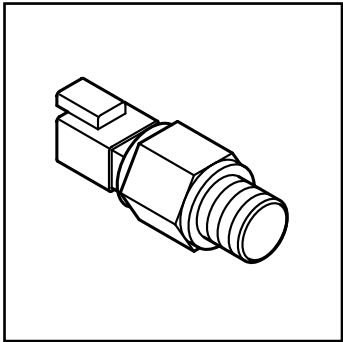
Item	Wire N°	Color	Section (mm2)	Towards
EP9 (Cab 2)	32	GREEN	1	X16A/8
		GREEN	2	X95

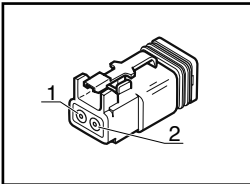
Item	Wire N°	Color	Section (mm2)	Towards
EP10 (Cab 1)	222	YELLOW	2	X138-2
	224	YELLOW	2	X19-2
	220	GREEN	1	X197-4
	221	GREEN	1	X199-3
	223	GREY	0,6	X23-10

Item	Wire N°	Color	Section (mm2)	Towards
EP10 (Cab 2)	43	GREEN	1	X59/1
	44	GREEN	1	X107/1
	45	GREEN	1	X108/1
	46	WHITE	3	X68A/1

ENGINE TEMPERATURE SENSOR

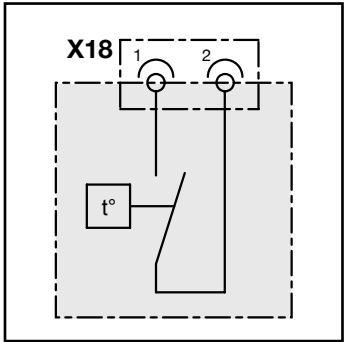
B5





Corresponding connector

PIN	Function
1	Water temperature info
2	Engine Earth



Diagram

	PIN	Minimum	Typical	Max
Supply voltage		/	12 V	/
Resistance range		20 Ω	/	2000 Ω
Temperature range		0 °C	/	120 °C
Resistance at 60 °C		/	134 ± 12,5 Ω	/
Resistance at 90 °C		/	51,2 ± 4,3 Ω	/
Resistance at 100 °C		/	38,5 ± 3 Ω	/

Temperature (°C)	Resistance (Ω)
0	1743
5	1364
10	1076
15	850
20	677
25	544
30	439
35	357
40	291
45	240
50	197
55	151
60	134
65	114
70	97
75	82
80	70
85	60
90	51
95	44

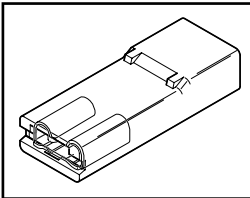
Temperature (°C)	Resistance (Ω)
100	38
105	33
110	29
115	26
120	22

Notes: _____

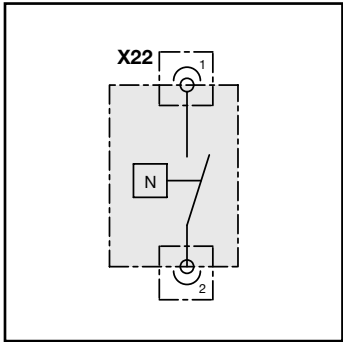
BRAKE LIQUID SWITCH

S11



	PIN	Function
	1	Cluster Info
	2	M1 Cab Earth

Corresponding connector



Diagram

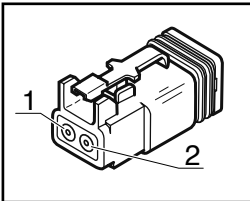
	PIN	Minimum	Typical	Max
Manimux current		4 mA	6 mA	/

Notes: _____

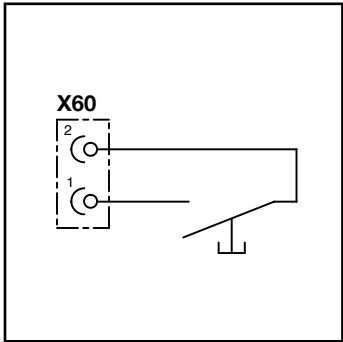
DECLUTCH PUSH BUTTON

S14



	PIN	Function
	1	Declutch Info
	2	M1 Chassis Earth

Corresponding connector



Diagram

	PIN	Minimum	Typical	Max
Manimux current	1	4 mA	6 mA	/
Voltage threshold	U < 2V = 0 U > 6.5V = 1 Umax = 16V			
Inlet type	Type 1 negative logic inlet (ELN1)			

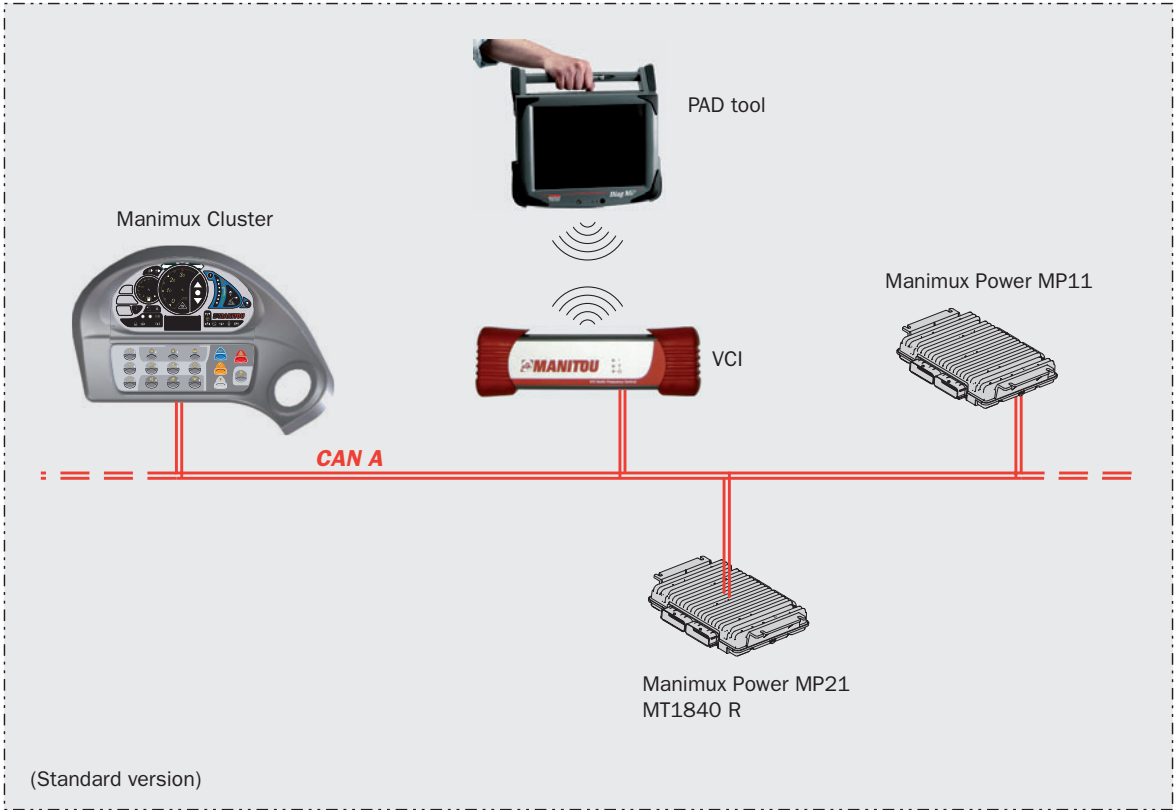
Notes: _____

MT 1436 R / 1840 R

	Pages
Position of connectors by diagram	B3
Electrical diagrams per function:	
1 - Customer Starting / Digicode	B7
2 - CAN H-L / OBD Plug (Diagnostic)	B11
3 - Transmission	B16
4 - Hydraulic movement	B19
5 - Cab sensors / emergency stop	B23
6 - Lighting signaling	B29
7 - Ventilation	B34
8 - Option EVTDF / Signaling.	B36

Splices	
Item	Position on diagram
Ep.5	E16
Ep.6	E27
Ep.9	A8
Ep.32	M33
Ep.CAN M	K7
Ep.CAN AR	I27

CAN Network



Key:

- **CAN A:** CAN Manimux (Cluster ⇔ Power11/Power21)

5 - CAB SENSORS / EMERGENCY STOP

Connectors					
Wiring harness type	Item	Name component	Designation	Position on diagram	Hydraulic correspondence
Cab 1	X13	A9	Cluster	C5	
I.C. engine	X17	B3	Engine oil pressure switch	I7	
I.C. engine	X18	B5	Engine water thermoswitch	E7	
Engine/Cab 1	X19		Engine/cab harness interface	Q3	
I.C. engine	X20	B6	Air filter clogging	E5	
Chassis	X21	B7	Hydraulic filter sensor	I25	
Cab 1	X22	S11	Brake fluid level	M10/K10	
Engine/Cab 1	X23		Engine/cab interface	C5	
Cab 1	X29	A8	Heating	O27	
I.C. engine	X42	Y2	Cold start sensor	Q3	
Cab 1	X45	S9	Door switch closed/cluster NF (wake-up)	I5	
Cab 1	X52	S10	Door switch closed/Manimux Power NO	M40	
Chassis	X55	B11	Forward pressure sensor	G35	
Chassis	X56	B12	Reverse pressure sensor	G37	
Chassis	X57	B13	Front clutch pressure	G21	
Chassis	X58	B24	Temperature sensor gear box (2 contacts on Manimux)	G18	
Chassis	X62	B14	Gearbox output speed sensor	G20	
Cab 1	X63	R2	Fuel gauge	C12	
Cab 1	X64	B8	Master cylinder pressure switch	I11	
Chassis	X65	B9	Front wheel alignment	C32	
Chassis	X66	B10	Rear wheel alignment	C34	
Chassis	X70	B17	Assist brake circuit pressure switch	C38	
Chassis	X76	B22	Safety valve pressure switch	C31	
Chassis	X77	B36	Boom lifting NF sensor	O31	
Chassis	X78	B35	Boom lowering NF sensor	O33	
Chassis	X79	B37	Tilting NO sensor	O35	
Chassis	X80	B38	Tilting NF sensor	A27	
Chassis	X81	B42	Right stabilizer up NF sensor	A32	
Chassis	X82	B41	Right stabiliser lowering NF sensor	A33	
Chassis	X83	B40	Left stabilizer up NF sensor	A29	
Chassis	X84	B39	Left stabiliser lowering NF sensor	A30	
Chassis	X85	B43	Slope NO sensor	A35	
Chassis	X86	B44	Slope NF sensor	A36	
Chassis	X87	B18	Right stabilizer lower pressure switch	G29	
Chassis	X88	B19	Right stabilizer high pressureswitch	I32	
Chassis	X96	B20	Left stabilizer lower pressure switch	I29	
Chassis	X97	B21	Upper left stabiliser sensor	G26	
Chassis	X100	B23	Boom angle sensor	I39	
Chassis/Cab 1	X110		Chassis/cab Interface	I25/M27	
Engine/Cab 1	X113		Power supply engine/cab interface fuse box	C4	
Cab 1	X114		Accelerator pedal switch	M28	
Cab 1	X118		Customer digital lock	K4	
Cluster	X119	B32	Strain gauge 1	A5	
Cluster	X120	B33	Strain gauge 2	A9	
Boom	X122	B51	QX boom ABD sensor connector	Q17	
Chassis	X124		C1 and C2 QX boom inductive sensor connector	O38	

7 - VENTILATION

Connectors					
Wiring harness type	Item	Name component	Designation	Position on diagram	Hydraulic correspondence
Engine/Cab 1	X23		Engine/cab interface	K16	
Cab 1	X29	A8	Heating	M6	
I.C. engine	X30	M10	Air-conditioning compressor	K16	
Chassis/Cab 1	X110		Chassis/cab interface	K6	
Engine/Cab 1	X113		Fusebox supply cab/engine interface	C7	
Chassis	X149	A1	Manimux Power CN2-P1	I8	
I.C. engine	X201	BF1/M1	Engine compartment fusebox BF1	C3	

Components			
Item	Designation	Position on diagram	Hydraulic correspondence
A1	Manimux Power MP1	I7	
A8	Heating / ventilation panel	M7	
B45	Air-conditioning low pressure sensor	O6	
H12	Heating panel light lamp	O5	
M16	Heating vent blower fan motor	Q6	
S12	Heater speed control switch	O4	
S13	Heater speed control switch	O7	

Fuses and relays		
Item	Designation	Position on diagram
K2	Front screenwiper intermittent relay	O12
K5	Stop electrovalve relay, diesel supply pump, cold starter electrovalve	O15
K12	Air-conditioning time delay relay	K13
BF1/M1		
F1	BF3 Power supply (cab) (40A)	C4
BF3/M2		
F30	+ Vbat air-conditioning fan motor	C12
BF3/M1		
F4	Heating / ventilation	E4

Splices	
Item	Position on diagram
Ep.9	C9

1 - CUSTOMER STARTER / DIGICODE

Connectors					
Wiring harness type	Item	Name component	Designation	Position on diagram	Hydraulic correspondence
I.C. engine	B+	G2	Alternator power supply	Q13	
I.C. engine	D+	G2	Alternator charge	Q13	
I.C. engine	W	G2	Alternator	Q13	
	X0	S1	Battery cut off	Q7	
Cab 1	X1	S2	4-way key switch	C14	
Cab 1	X2	S2	6-way key switch	C17	
I.C. engine	X3	R1	Preheating	Q9	
I.C. engine	X4	M1	Starter solenoid	Q5	
I.C. engine	X5	R5	Fuel heater	I25	
I.C. engine	X7	M2	Fuel pump	Q25	
I.C. engine	X8	Y1	Engine stop electrovalve	Q30	
Cab 1	X13	A9	Cluster	C28	
Engine/Cab 1	X19		Engine/cab harness interface	O20	
Engine/Cab 1	X23		Engine/cab interface	O20	
Engine/Cab 1	X24		Cab/engine interface	C11	
I.C. engine	X42	Y2	Cold start sensor	Q27	
Engine/Cab 1	X113		Fusebox supply cab/engine interface	G8	
Cab 1	X118		Customer digital lock	C34	
Cab 1	X138	S50	Emergency stop button	C23	
I.C. engine	X201	BF1/M1	Engine compartment fusebox BF1	C5	

Components			
Item	Designation	Position on diagram	Hydraulic correspondence
A9	Manimux Cluster MC2	C31	
G1	Battery 12V/110Ah or 145 Ah (cold countries)	A3	
G2	Alternator 12V/85 A	S11	
M1	Starter	Q5	
M2	Fuel pump	Q25	
R1	Preheating resistances	S9	
R5	Diesel fuel reheating	I35	
S1	Battery cut off	S8	
S2	Key switch	A14	
S3	Cold start sensor	Q27	
S50	Emergency stop button	A25	
Y1	Engine stop solenoid valve	Q30	
Y2	KSB cold start solenoid valve	Q27	

6 - SIGNALING LIGHTING

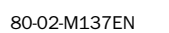
Connectors					
Wiring harness type	Item	Name component	Designation	Position on diagram	Hydraulic correspondence
Cab 2	X6	E15	Rotating beacon light	G32	
Cab 1	X11	S4	Wiper switch	E26	
Cab 1	X12		Wiping reset	E34	
Cab 1	X13	A9	Cluster	I8	
Cluster	X14	S5	Light switch	G3	
Cab 1	X15		High/low cab interface	G22	
Cab 1	X16		High/low cab interface	C24	
Cab 1	X25	M3	Front windscreen wiper	K36	
Cab 2	X27	M7	Front glass wash pump	Q18	
Cab 2	X28	M8	Rear screen washer pump	Q20	
Chassis	X31	E3	Rear left-hand headlight	Q30	
Chassis	X32	E4	Rear right-hand headlight	Q34	
Cab 2	X33		L/R front work light link	M9	
Chassis	X35	E1	Left front headlight	Q22	
Chassis	X36	E2	Right front headlight	Q26	
Chassis	X38	B1	Reverse buzzer	Q37	
Chassis	X39	B2	Main horn	M38	
Cab 1	X41	V2	Windscreen wiper reset diode harness	C34	
Cab 2	X43	M9	Window up motor	Q16	
Cab 1	X46	S7	Cigarette lighter	Q12	
Cab 1	X47	S7	Cigarette lighter light	Q14	
Option	X48	E12	Right front work light	M11	
Option	X49	E13	Left front work light	M10	
Cab 2	X50	E14	Roof light	C24	
Cab 2	X59	M4	Rear screenwiper motor	G14	
Cab 1	X68		Roof switch supply	C16	
Cab 1	X69	S6	Window wind up	M3	
Chassis/Cab 1	X110		Chassis/cab Interface	M14	
Engine/Cab 1	X113		Fusebox supply cab/engine interface	A8	
Chassis	X149	A1	Manimux Power CN2-P1	M22	
I.C. engine	X201	BF1/M1	Engine compartment fusebox BF1	C4	

Components			
Item	Designation	Position on diagram	Hydraulic correspondence
A1	Manimux Power MP1	M28	
A9	Manimux Cluster MC2	G5	
B1	Reverse sound alarm	Q38	
B2	Main horn	M38	
E1	Left front headlight	Q23	
E2	Right front headlight	Q26	
E3	Left rear sidelight with antifog light	Q30	
E4	Right rear sidelight with reverse light	Q34	
E12	Right front work light	O10	
E13	Left front work light	O11	

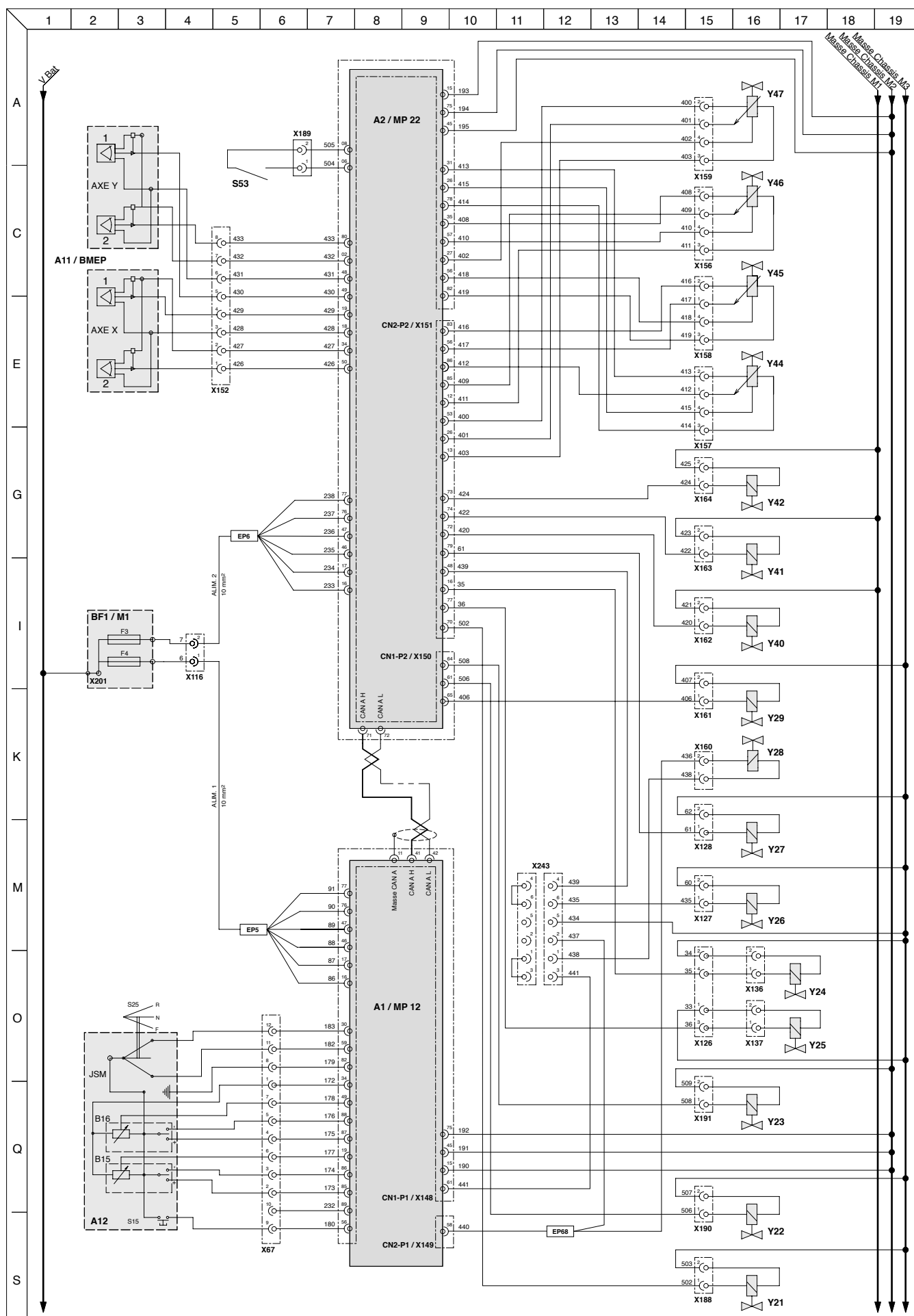
POSITION OF CONNECTORS BY DIAGRAM

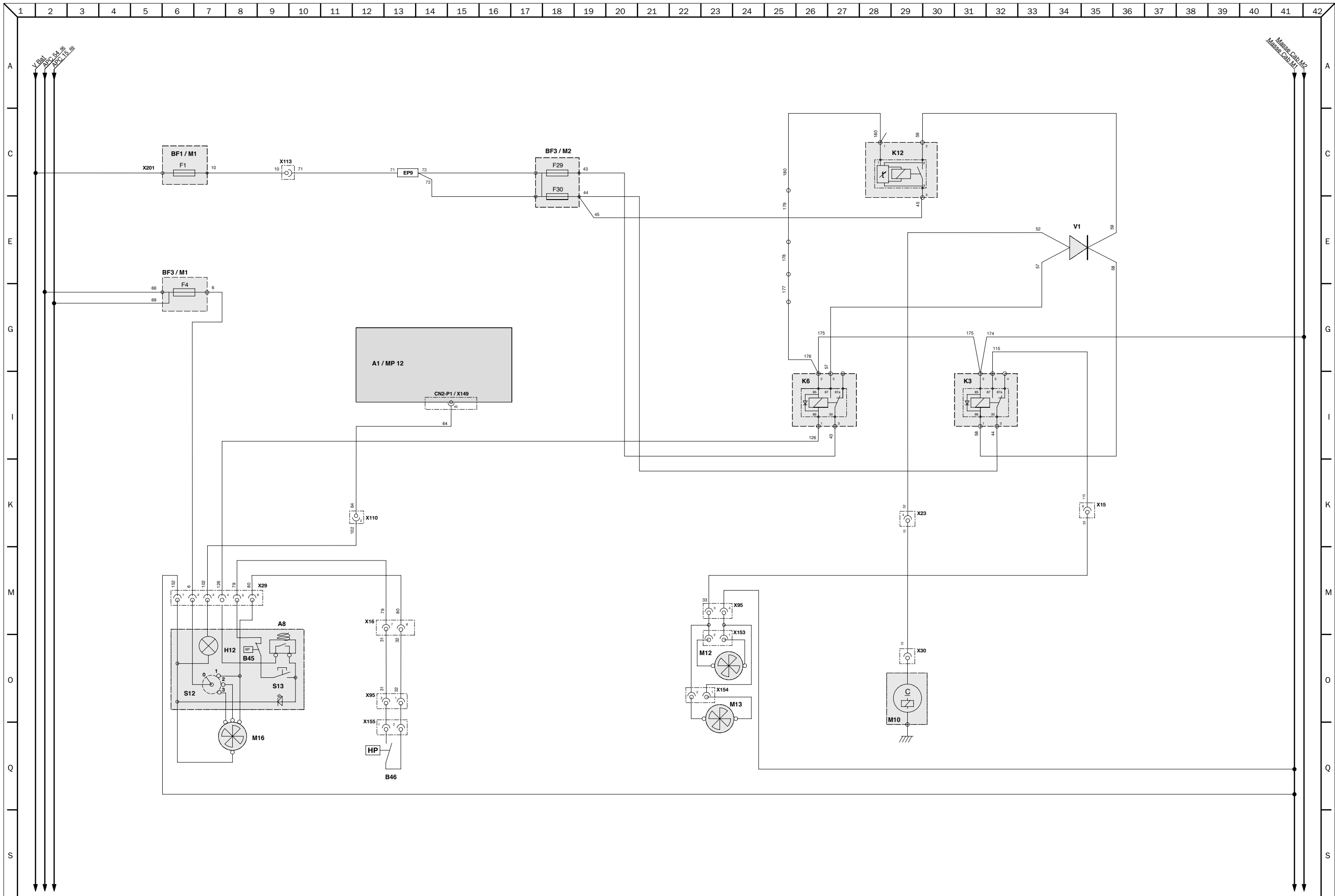
Connectors	Diag. 1	Diag. 2	Diag. 3	Diag. 4	Diag. 5	Diag. 6	Diag. 7	Diag. 8	Diag. 9	Diag. 10
B+	✓									
D+	✓									
W	✓									
X0	✓									
X1	✓									
X2	✓									
X3	✓									
X4	✓									
X5	✓									
X6						✓				
X7	✓									
X8	✓									
X11						✓				✓
X12						✓				
X13	✓	✓			✓	✓				✓
X14						✓				
X15						✓	✓	✓		✓
X16					✓	✓	✓	✓		
X17					✓					
X18					✓					
X19	✓				✓					
X20					✓					
X21					✓					
X22					✓					
X23	✓				✓			✓		✓
X24	✓									
X25						✓				✓
X26							✓			
X27						✓				
X28						✓				
X29					✓		✓	✓		✓
X30								✓		
X31						✓	✓			
X32						✓				
X33						✓				
X34							✓			
X35						✓				
X36						✓				
X37							✓			
X38						✓				
X39						✓				
X40							✓			
X41						✓				
X42	✓				✓					
X43						✓				
X45					✓					

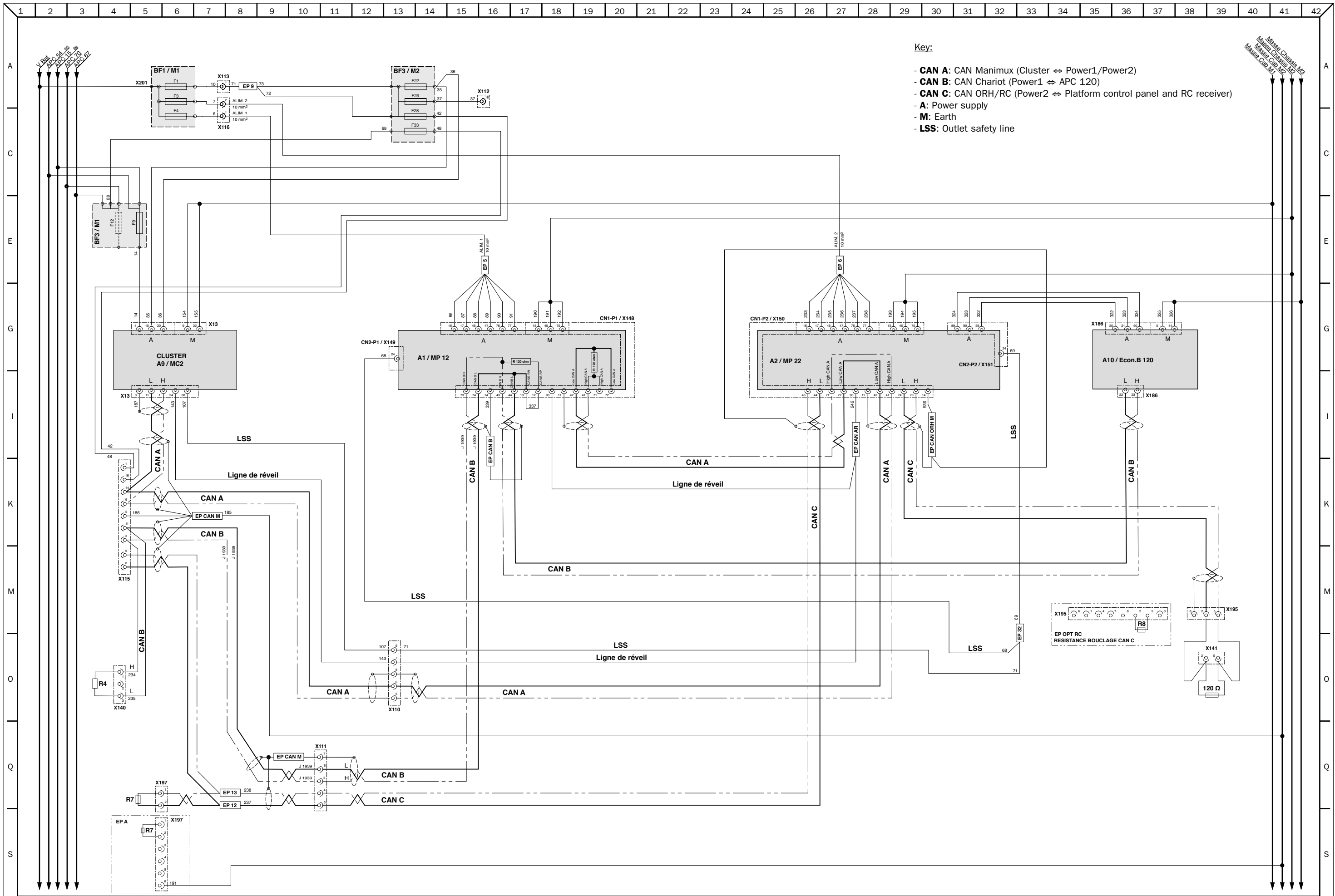
Item	Designation	Position on diagram	Hydraulic correspondence
B20	Left stabilizer pressure switch 1	K29	
B21	Left stabilizer pressure switch 2	I25	
B22	Pressure sensitive switch Valve/security valve hydraulic cut-off	E31	
B23	Boom angle sensor	I37	
B24	Gearbox oil temperature sensor	E17	
B25	Boom suspension cylinder valve pressure sw 1	S13	
B26	Boom suspension cylinder valve pressure sw 2	S14	
B29	Negative brake fault pressure switch	C36	
B30	Servo steering circuit fault pressure switch	K34	
B32	Strain gauge 1	A7	
B33	Constraint 2 gauge	A11	
B35	Boom lowering NF sensor	Q33	
B36	Boom lifting NF sensor	Q31	
B37	Tilting NO sensor	Q35	
B38	Tilting NF sensor	A27	
B39	Left stabiliser lowering NF sensor	A29	
B40	Left stabilizer up NF sensor	A30	
B41	Right stabiliser lowering NF sensor	A32	
B42	Right stabilizer up NF sensor	A33	
B43	Slope NO sensor	A35	
B44	Slope NF sensor	A36	
B45	Air-conditioning low pressure sensor	Q26	
B46	Air-conditioning high pressure sensor	S32	
B47	Brake pedal potentiometer	G13	
B48	Accelerator pedal potentiometer	G17	
B49	Turbine speed (inching) sensor	E20	
B51	Inductive sensor A QX boom	S19	
B52	Inductive sensor B QX boom	S20	
B53	Inductive sensor D QX boom	S22	
B54	Inductive sensor C1 QX boom	Q37	
B55	Inductive sensor C2 QX boom	Q38	
H12	Heating panel light lamp	Q26	
M16	Heating vent blower fan motor	Q26	
R2	Fuel level sensor	E12	
S3	Cold start sensor	S4	
S9	Closed cab door switch on NF cluster (wake-up)	K5	
S10	Closed cab door switch on power NO	M38	
S11	Brake liquid level contact	K10	
S12	Heater speed control switch	Q24	
S13	Heater speed control switch	Q27	
S34	Retracted boom sensor	K28	
S50	Emergency stop button	M5	
Y2	KSB cold start solenoid valve	S4	



“Hydraulic movement” electrical diagram



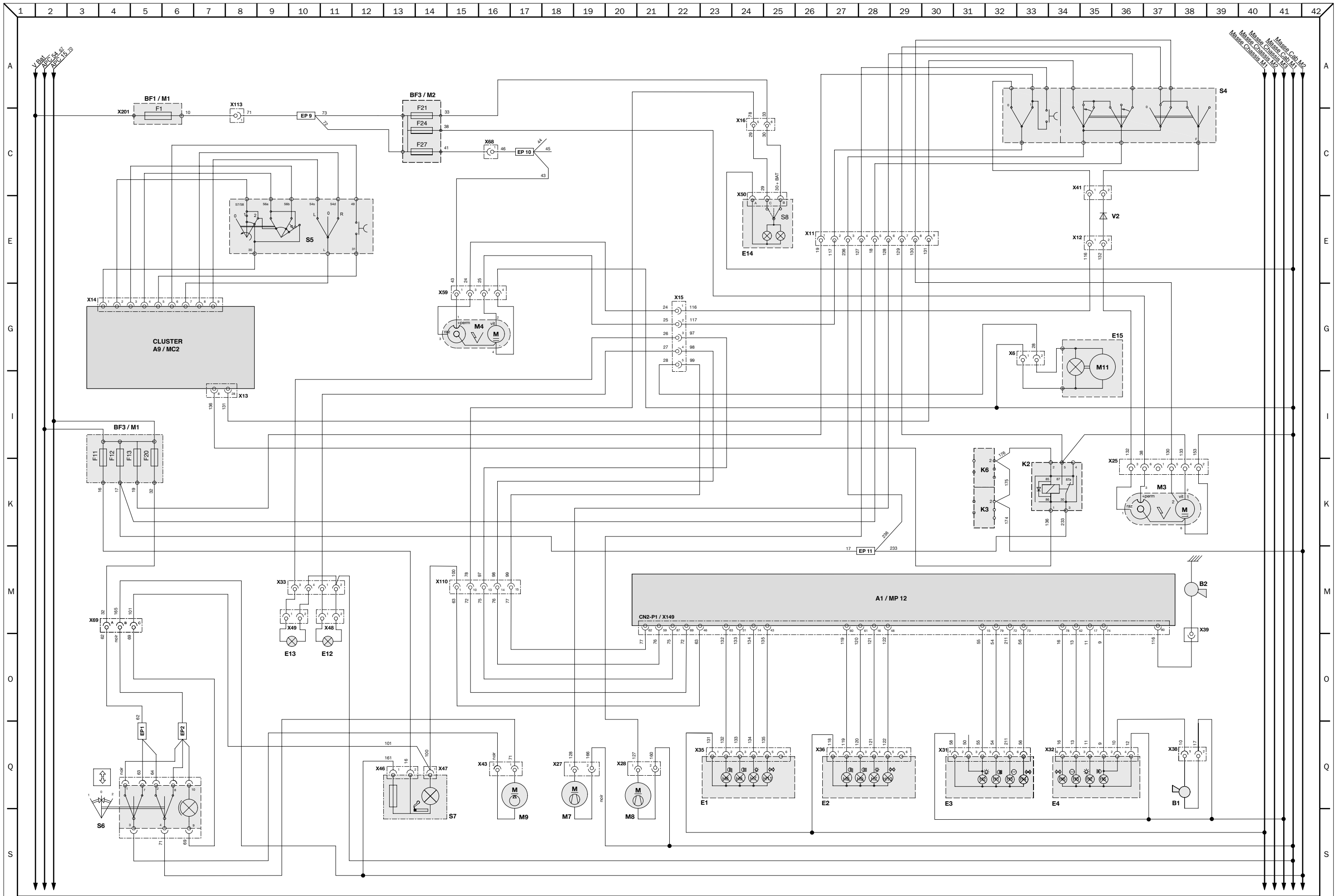




Item	Designation	Position on diagram	Hydraulic correspondence
Y1	Engine stop solenoid valve	I4	
Y12	Head boom electrovalve	K33	
Y20	Engine speed solenoid	Q5	

Fuses and relays		
Item	Designation	Position on diagram
K2	Front windshield wiper intermittence relay	A11
K3	Air-conditioning fan motor relay	A15
K5	Stop electrovalve relay, diesel supply pump, cold starter electrovalve	C10
K6	Air conditioning compressor relay	A13
K20	Preheater relay	M3
K21	Engine starter/Access platform relay	M9
K22	Emergency stop/Radio Control shunt relay	M7
K23	Engine speed/Radio Control relay	M5
BF1/M1		
F1	BF3 Power supply (cab) (40A)	E3
BF1/M2		
F4	RC engine speed relay (30A)	E5
BF3/M2		
F31	Post contact safety engine starter, relay K5 (10A)	A5
F23	RC battery charger + Econ B 120 (2A) supply	C5
F35	ORH control panel or RC 2.2 (2A)	A5
F36	Hetronic receiver (2A)	C5

Splices	
Item	Position on diagram
Ep.4	G27
Ep.7	G22
Ep.9	C3
Ep.10	G17
Ep.71	E34



10 - OPTION CRC / EVTDF / PNEUMATIC SEAT

Connectors					
Wiring harness type	Item	Name component	Designation	Position on diagram	Hydraulic correspondence
Chassis	X91		Boom head electrovalve	O8	
Cab 1	X121	M15	Pneumatic seat pump	O3	
Chassis	X135		Boom suspension connector	E10	
Chassis	X149	A1	Manimux Power CN2-P1	K10	
Chassis	X150	A2	Manimux Power CN1-P2	A8	
Chassis	X151	A2	Manimux Power CN2-P2	A12	
Option	X166	Y12	Boom head electrovalve plug at boom head	Q10	
Option	X167	Y10	Electrovalve 1 boom suspension	G9	
Option	X168	Y11	Electrovalve 2 boom suspension	G11	
Option	X169	B25	Boom suspension cylinder valve pressure switch 1	G13	
Option	X170	B26	Boom suspension cylinder valve pressure switch 2	G16	
Chassis	X194		Intermediate boom outlet inductive sensors	G5	
ORH	X202	B68	Sensor 2 platform intermediate	G5	
ORH	X203	B67	Sensor 1 platform intermediate	G8	

Components			
Item	Designation	Position on diagram	Hydraulic correspondence
A1	Manimux Power MP1	K12	
A2	Manimux Power MP2	A13	
B25	Boom suspension cylinder valve pressure sw 1	I13	
B26	Boom suspension cylinder valve pressure sw 2	I16	
B67	Intermediate boom extend sensor 1	I8	
B68	Intermediate boom extend sensor 2	I6	
M15	Pneumatic seat pump	S4	
S44	Pneumatic seat switch	Q4	
Y10	Boom suspension solenoid valve 1	I9	
Y11	Boom suspension solenoid valve 2	I11	
Y12	Head boom electrovalve	S10	

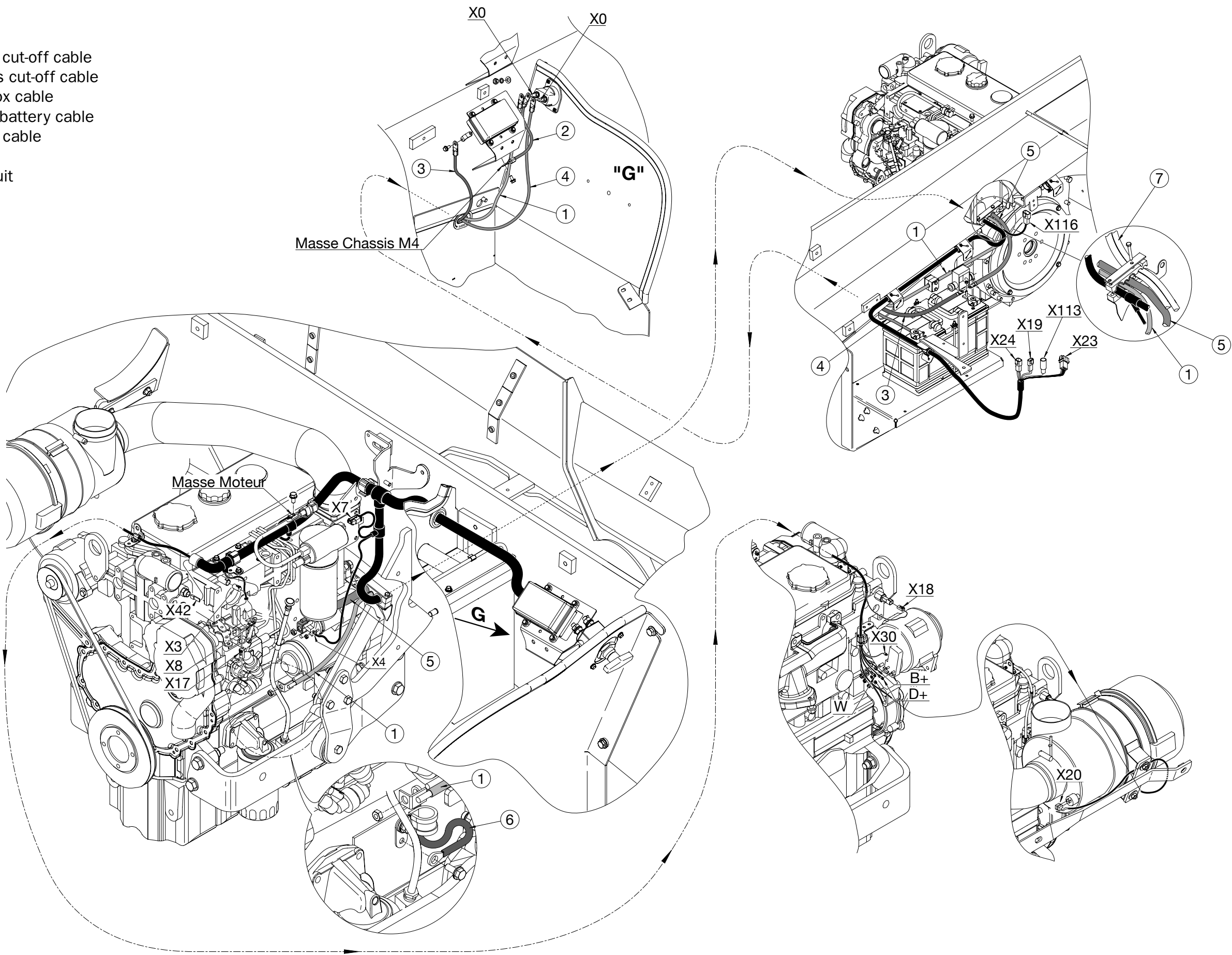
Fuses and relays		
Item	Designation	Position on diagram
BF3/M1		
F8	Pneumatic seat (10A)	K4

Splices	
Item	Position on diagram
Ep.72	E6

Wiring harness type	Item	Designation	Position on harness diagram				Comments
			Assembly	Chassis	I.C. engine	Cab	
Cab	X46	Cigarette lighter	I20			C20	
Cab	X47	Cigarette lighter light	I20			C21	
	X48	Right front work light					Option on truckUK
	X49	Left front work light					Option on UK truck
Cab 2	X50	Roof light	A10			C11	
Cab 1	X52	Door switch closed/Manimux Power NO	G20			I10	
Chassis	X53	Forward electrovalve	M18	M14			
Chassis	X54	Rear electrovalve	M17	M12			
Chassis	X55	Forward pressure sensor	M18	M14			
Chassis	X56	Reverse pressure sensor	M20	K15			
Chassis	X57	Front clutch pressure	M18	K13			
Chassis	X58	Temperature sensor gear box	M17	M12			
Cab 2	X59	Rear screenwiper motor	A6			A12	
Chassis	X60	Gear lever transmission cut-off	M17	K12			
Chassis	X62	Gear box output speed sensor	M21	K16			
Cab 1	X63	Fuel gauge	I28			I24	
Cab 1	X64	Master cylinder pressure switch	G28			I25	
Chassis	X65	FR wheel alignment sensor	M32	I27			
Chassis	X66	RR wheel alignment sensor	M12	O11			
Chassis	X67	JSM socket	K23	Q38/ M26			
Cab 1	X69	Cab/window winder connection	G23			G14	
Cab 2	X69A	Cab/window winder connection	G23			G17	
Chassis	X70	Assist brake circuit pressure switch	M30	Q20			
Chassis	X71	A output on telescope and attachment	K25	Q26/ O31			
Chassis	X72	B output on telescope and attachment	K26	Q26/ M31			
Chassis	X75	Electrovalve1 for movement safety	K22	Q37/ O28			
Chassis	X76	Movement safety pressure switch	K24	S37/ M26			
Chassis	X77	Boom lifting NF sensor	K22	Q30/ O29			
Chassis	X78	Boom lowering NF sensor	K22	Q29/ M29			
Chassis	X79	Tilting NO sensor	K23	Q28/ O30			
Chassis	X80	Tilting NF sensor	K24	Q28/ M30			
Chassis	X81	Right stabilizer up NF sensor	K18	Q33/ O29			
Chassis	X82	Right stabiliser lowering NF sensor	K19	Q33/ O29			
Chassis	X83	Left stabilizer up NF sensor	K20	Q31/ O29			
Chassis	X84	Left stabiliser lowering NF sensor	K21	Q31/ O29			
Chassis	X85	Slope NO sensor	K17	Q34/ O28			
Chassis	X86	Slope NF sensor	K17	Q34/ O28			
Chassis	X87	Right stabilizer lower pressure switch	K38	M36			

Key:

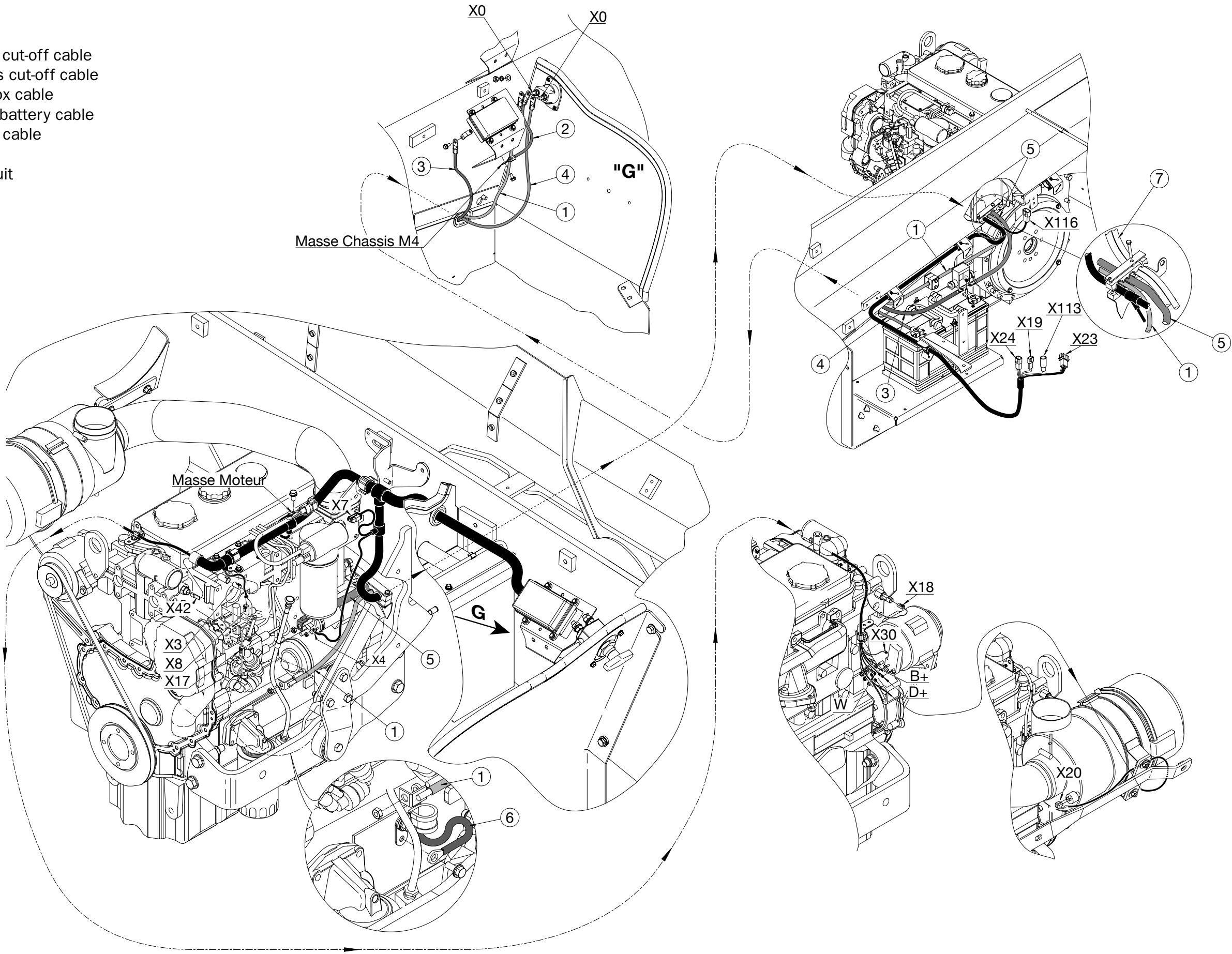
- 1 - Battery/starter cut-off cable
- 2 - Battery/chassis cut-off cable
- 3 - Battery/fuse box cable
- 4 - Battery cut-off/battery cable
- 5 - Starter/battery cable
- 6 - Cable 10 mm²
- 7 - Diesel fuel circuit



Wiring harness type	Item	Designation	Position on harness diagram				Comments
			Assembly	Chassis	I.C. engine	Cab	
Cab 1	X46	Cigarette lighter	I20			C20/ C22	
Cab 1	X47	Cigarette lighter light	I20				
	X48	Right front work light					option on UK truck
	X49	Left front work light					option on UK truck
Cab 2	X50	Roof light	A10			C11	
Cab 1	X52	Door switch closed/Manimux Power NO	G20			K10	
Chassis	X53	Forward electrovalve	M18	M14			
Chassis	X54	Rear electrovalve	M17	M12			
Chassis	X55	Forward pressure sensor	M18	M14			
Chassis	X56	Reverse pressure sensor	M20	K15			
Chassis	X57	Front clutch pressure	M18	K13			
Chassis	X58	Temperature sensor gear box	O17	M12			
Cab 2	X59	Rear screenwiper motor	A6			A12	
Chassis	X60	Gear lever transmission cut-off	M17	K12			
Chassis	X62	Gear box output speed sensor	M21	K16			
Cab 1	X63	Fuel gauge	I28			I24	
Cab 1	X64	Master cylinder pressure switch	G28			I25	
Chassis	X65	FR wheel alignment sensor	M32	I27			
Chassis	X66	RR wheel alignment sensor	M12	O11			
Chassis	X67	JSM socket	K23	Q38			
Cab 1	X69	Cab/window winder connection	G23			G14	
Cab 2	X69A	Cab/window winder connection	G23			G17	
Chassis	X70	Assist brake circuit pressure switch	M30	Q20			
Chassis	X71	A output on telescope and attachment	K25	Q27			
Chassis	X72	B output on telescope and attachment	K26	Q26			
Chassis	X75	Electrovalve1 for movement safety	K22	Q37			
Chassis	X76	Movement safety pressure switch	K24	S37			
Chassis	X77	Boom lifting NF sensor	K22	Q30			
Chassis	X78	Boom lowering NF sensor	K22	Q29			
Chassis	X79	Tilting NO sensor	K23	Q28			
Chassis	X80	Tilting NF sensor	K24	Q28			
Chassis	X81	Right stabilizer up NF sensor	K18	Q33			
Chassis	X82	Right stabiliser lowering NF sensor	K19	Q33			
Chassis	X83	Left stabilizer up NF sensor	K20	Q31			
Chassis	X84	Left stabiliser lowering NF sensor	K21	Q31			
Chassis	X85	NO slope sensor	K17	Q34			
Chassis	X86	Slope NF sensor	K17	Q34			
Chassis	X87	Right stabilizer lower pressure switch	Q38	M36			
Chassis	X88	Right stabilizer high pressure switch	Q37	M37			
Chassis	X91	Opt boom head electrovalve	K3	C8			
Chassis	X92	Negative brake electrovalve	M30	O21			
Chassis	X96	Left stabilizer high pressure switch	I39	I37			
Chassis	X97	Left stabilizer lower pressure switch	I37	I36			
Chassis	X100	Boom angle sensor	O2	G9			
Chassis	X110	Chassis/cab connection	G16	E33			
Cab 1	X110	Chassis/cab connection	G16			M8	
I.C. engine	X113	Engine/fusebox supply cab connection	M24		Q25		
Cab 1	X113	Fusebox supply/Engine connection	M24			O26	

Key:

- 1 - Battery/starter cut-off cable
- 2 - Battery/chassis cut-off cable
- 3 - Battery/fuse box cable
- 4 - Battery cut-off/battery cable
- 5 - Starter/battery cable
- 6 - Cable 10 mm²
- 7 - Diesel fuel circuit



F8

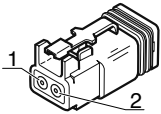
Electric components location

LCD error code (Cluster)	Functional domains							
	Electricity	I.C. engine	Brake	Steering	Transmission	Safety	Hydraulic	Maintenance
1D				✓	✓	✓		✓
1E				✓	✓	✓	✓	
1F				✓	✓	✓	✓	✓
20			✓					
21			✓					✓
22			✓				✓	
23			✓				✓	✓
24			✓			✓		
25			✓			✓		✓
26			✓			✓	✓	
27			✓			✓	✓	✓
28			✓		✓			
29			✓		✓			✓
2A			✓		✓		✓	
2B			✓		✓		✓	✓
2C			✓		✓	✓		
2D			✓		✓	✓		✓
2E			✓		✓	✓	✓	
2F			✓		✓	✓	✓	✓
30			✓	✓				
31			✓	✓				✓
32			✓	✓			✓	
33			✓	✓			✓	✓
34			✓	✓		✓		
35			✓	✓		✓		✓
36			✓	✓		✓	✓	
37			✓	✓		✓	✓	✓
38			✓	✓	✓			
39			✓	✓	✓			✓
3A			✓	✓	✓		✓	
3B			✓	✓	✓		✓	✓
3C			✓	✓	✓	✓		
3D			✓	✓	✓	✓		✓
3E			✓	✓	✓	✓	✓	
3F			✓	✓	✓	✓	✓	✓
40		✓						

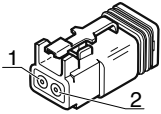
DIAGNOSTIC CASE



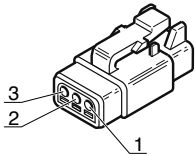
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X91	1	3	GREEN	1	EP71
	2	4	BLACK	1	M3 Frame Ground



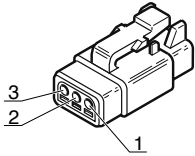
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X92	1	7	GREEN	1	EP90
	2	8	BLACK	1	M1 Frame Ground



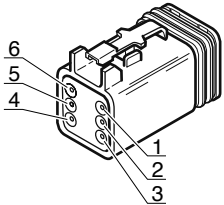
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X96	1	128	BLACK	0,6	M1 Frame Ground
	2	127	GREY	0,6	X148/24
	3		PLUG		



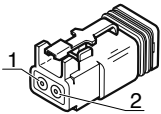
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X97	1	130	BLACK	0,6	M2 Frame Ground
	2	129	GREY	0,6	X148/54
	3		PLUG		



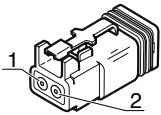
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X100	1	23	GREEN	1	EP91
	2	18	GREEN	1	EP20
	3	21	GREEN	1	X148/50
	4	24	GREEN	1	EP91
	5	19	GREEN	1	EP20
	6	22	GREEN	1	X148/80



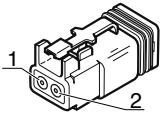
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X105	1	538	YELLOW	2	EP73
	2	256	BLACK	2	M3 Frame Ground



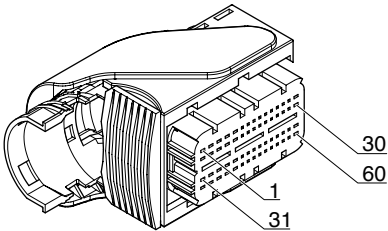
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X106	1	253	YELLOW	2	X112-8
	2	254	BLACK	2	M3 Frame Ground



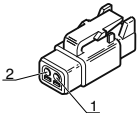
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X109	1	251	YELLOW	2	X112-9
	2	252	BLACK	2	M3 Frame Ground



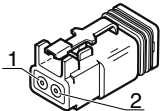
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X186	1	318	GREEN	1	X184/1
	2	319	GREEN	1	X184/2
	5	325	BLACK	1,5	M3 Frame Ground
	6	300	GREY	0,6	X185/1
	9	309	GREY	0,6	X182/2
	10	308	GREY	0,6	X182/1
	11	311	GREY	0,6	X62/2
	12	310	GREY	0,6	X62/1
	15	303	GREEN	1	X111/14
	20	322	GREEN	1	X151/59
	21	323	GREY	0,6	X151/90
	22	CABLE 3	WHITE	0,5	X148/44
	23	CABLE 3	BROWN	0,5	X148/43
	26	329	GREY	0,6	X58/2
	27	332	GREY	0,6	X58/1
	28	338	GREY	0,6	X111/13
	29	304	GREY	0,6	X111/15
	31	314	GREEN	1	X54/1
	32	315	GREEN	1	X54/2
	33	316	GREEN	1	X53/1
	34	317	GREEN	1	X53/2
	36	334	GREY	0,6	X185/3
	39	301	GREY	0,6	X185/2
	44	326	BLACK	0,6	M3 Frame Ground
	45	333	GREEN	1	X149/84
	58	320	GREY	0,6	X112/10
	59	328	GREY	0,6	X57/1
	60	324	GREEN	1	X151/89



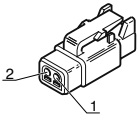
Item	Pos	Wire N°	Color	Section (mm2)	Towards
X187	1	500	GREY	0,6	X150/58
	2	501	GREY	0,6	X150/28



Item	Pos	Wire N°	Color	Section (mm2)	Towards
X188	1	502	GREEN	1	X151/70
	2	503	BLACK	1	M3 Frame Ground



Item	Pos	Wire N°	Color	Section (mm2)	Towards
X189	1	504	GREY	0,6	X150/06
	2	505	GREY	0,6	X150/08



OPTION INCHING

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3D Frame harness	.A8
Assembly on cab harness	.A9

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