

Contents

INTRODUCTION

HYDRAULIC - PNEUMATIC - ELECTRICAL - ELECTRONIC SYSTEMS A

PRIMARY HYDRAULIC POWER SYSTEM.....	A.10.A
PRIMARY HYDRAULIC POWER SYSTEM Closed center mechanical remote valve	A.10.B
PRIMARY HYDRAULIC POWER SYSTEM Electro-hydraulic remote valve.....	A.10.C
PRIMARY HYDRAULIC POWER SYSTEM Open center mechanical remote valve.....	A.10.D
SECONDARY HYDRAULIC POWER SYSTEM.....	A.12.A
HYDRAULIC COMMAND SYSTEM.....	A.14.A
ELECTRICAL POWER SYSTEM	A.30.A
ELECTRICAL POWER SYSTEM	A.30.A
ELECTRONIC SYSTEM	A.50.A
FAULT CODES	A.50.A

ENGINE AND PTO IN B

ENGINE	B.10.A
FUEL AND INJECTION SYSTEM.....	B.20.A
AIR INTAKE SYSTEM.....	B.30.A
EXHAUST SYSTEM.....	B.40.A
ENGINE COOLANT SYSTEM	B.50.A
STARTING SYSTEM	B.80.A

TRANSMISSION, DRIVE AND PTO OUT C

POWER COUPLING Clutch.....	C.10.C
TRANSMISSION Mechanical	C.20.B
TRANSMISSION Power Shuttle.....	C.20.C
TRANSMISSION Semi-Powershift	C.20.D
ADDITIONAL REDUCERS Creeper.....	C.30.C
ADDITIONAL REDUCERS Overdrive.....	C.30.D
REAR PTO Hydraulic.....	C.40.C
FRONT PTO Hydraulic	C.42.C

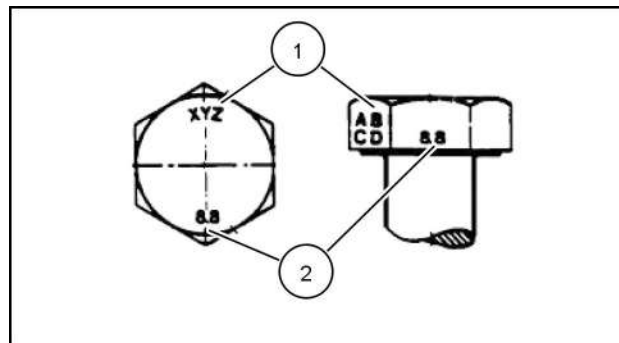
AXLES, BRAKES AND STEERING..... D

FRONT AXLE	D.10.A
REAR AXLE	D.12.A
2WD-4WD SYSTEM Hydraulic	D.14.C
STEERING Hydraulic	D.20.C
SERVICE BRAKE Hydraulic	D.30.C
PARKING BRAKE Mechanical	D.32.B
BRAKE CONNECTION Hydraulic	D.34.C
SUSPENSION Hydraulic	D.40.C
WHEELS AND TRACKS Wheels	D.50.C
FRAME AND CAB	E
FRAME Primary frame	E.10.B
SHIELD	E.20.A
USER CONTROLS AND SEAT	E.32.A
USER PLATFORM	E.34.A
ENVIRONMENT CONTROL Heating, ventilation and air-conditioning	E.40.D
HITCH AND WORKING TOOL	H
HITCH Front hitch	H.10.B
HITCH Rear hitch	H.10.C
HITCH Electronic draft control	H.10.D

INTRODUCTION

Metric hardware

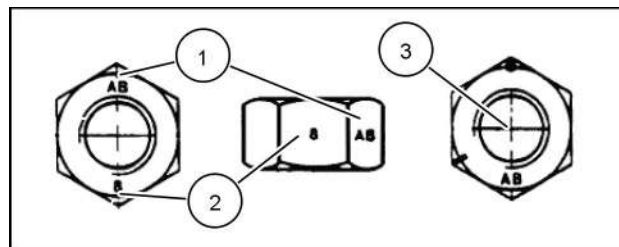
Nominal Size	CLASS 5.8 UNPLATED	CLASS 5.8 UNPLATED	CLASS 8.8 UNPLATED	CLASS 8.8 UNPLATED	CLASS 10.9 UNPLATED	CLASS 10.9 UNPLATED	LOCKNUT CL.8 w/CL8.8 BOLT
M4	1.7 Nm 15 lb in	2.2 Nm 19 lb in	2.6 Nm 23 lb in	3.4 Nm 30 lb in	3.7 Nm 33 lb in	4.8 Nm 42 lb in	1.8 Nm 16 lb in
M6	5.8 Nm 51 lb in	7.6 Nm 67 lb in	8.9 Nm 79 lb in	12 Nm 102 lb in	13 Nm 115 lb in	17 Nm 150 lb in	6.3 Nm 56 lb in
M8	14 Nm 124 lb in	18 Nm 159 lb in	22 Nm 195 lb in	28 Nm 248 lb in	31 Nm 274 lb in	40 Nm 354 lb in	15 Nm 133 lb in
M10	28 Nm 21 lb ft	36 Nm 27 lb ft	43 Nm 32 lb ft	56 Nm 41 lb ft	61 Nm 45 lb ft	79 Nm 58 lb ft	30 Nm 22 lb ft
M12	49 Nm 36 lb ft	63 Nm 46 lb ft	75 Nm 55 lb ft	97 Nm 72 lb ft	107 Nm 79 lb ft	138 Nm 102 lb ft	53 Nm 39 lb ft
M16	121 Nm 89 lb ft	158 Nm 117 lb ft	186 Nm 137 lb ft	240 Nm 177 lb ft	266 Nm 196 lb ft	344 Nm 254 lb ft	131 Nm 97 lb ft
M20	237 Nm 175 lb ft	307 Nm 107 lb ft	375 Nm 277 lb ft	485 Nm 358 lb ft	519 Nm 383 lb ft	671 Nm 495 lb ft	265 Nm 195 lb ft
M24	411 Nm 303 lb ft	531 Nm 392 lb ft	648 Nm 478 lb ft	839 Nm 619 lb ft	897 Nm 662 lb ft	1160 Nm 855 lb ft	458 Nm 338 lb ft



20083680 2

Identification - Hexagon cap screw and carriage bolts classes 5.6 and onwards

1. Manufacturers identification
2. Property class



20083681 3

Identification - Hexagonal nuts and locknuts classes 05 onwards

1. Manufacturers identification
2. Property class
3. Clock marking

PRIMARY HYDRAULIC POWER SYSTEM Closed center mechanical remote valve - Special tools

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

CAUTION

The operations described in this section can only be carried out with the **ESSENTIAL** tools indicated by an (X). To work safely and efficiently and obtain the best results, it is also necessary to use the recommended specific tools listed below and certain other tools, which are to be made according to the drawings included in this manual.

B008

List of specific tools required for the various operations described in this section.
X **380000495** Lifting bracket.

PRIMARY HYDRAULIC POWER SYSTEM Closed center mechanical remote valve - General specification

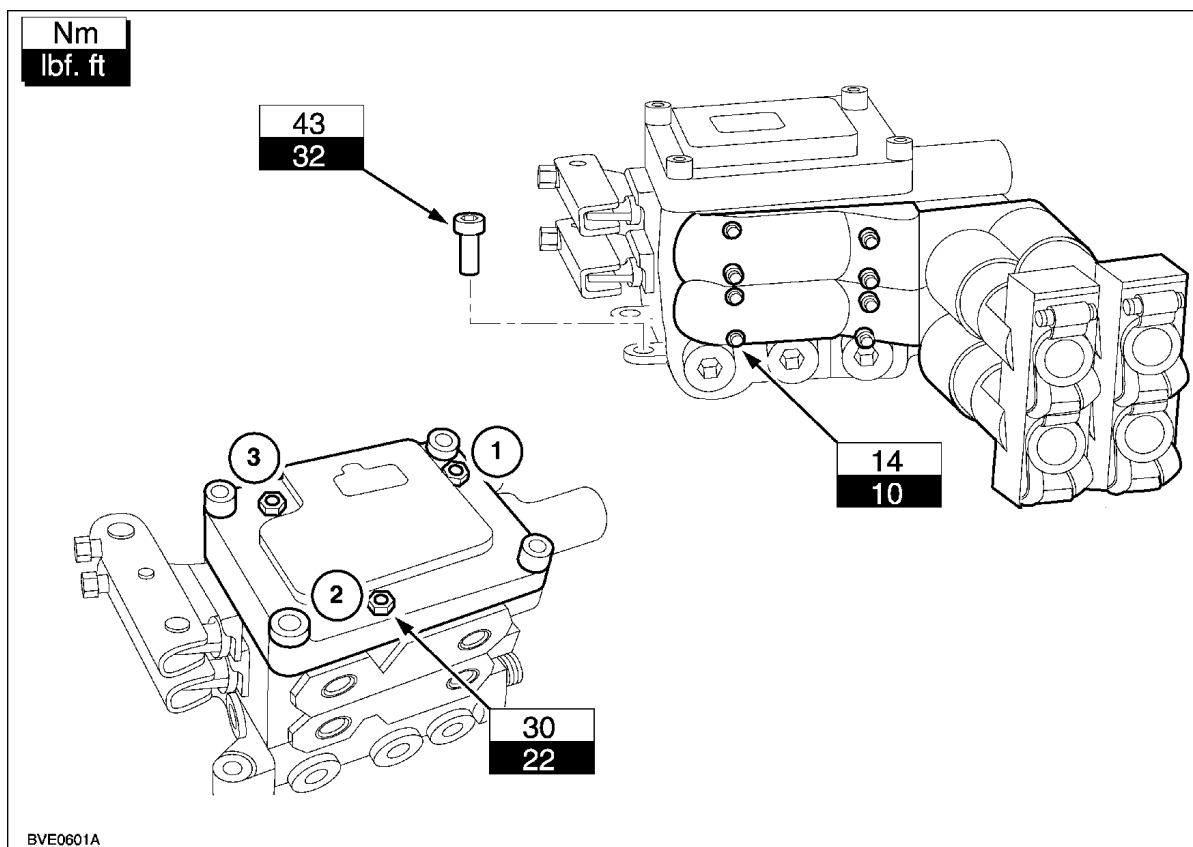
MAXXUM 100, MAXXUM 110, MAXXUM 115, MAXXUM 120, MAXXUM 125, MAXXUM 130, MAXXUM 140

Remote Control Valve Output @ 100 bar (1450.0 psi) @ 2200 erpm
Detent Regulating Valve Pressure

90 l/min (23.8 US gpm)
Pre set non adjustable

PRIMARY HYDRAULIC POWER SYSTEM Closed center mechanical remote valve - Torque

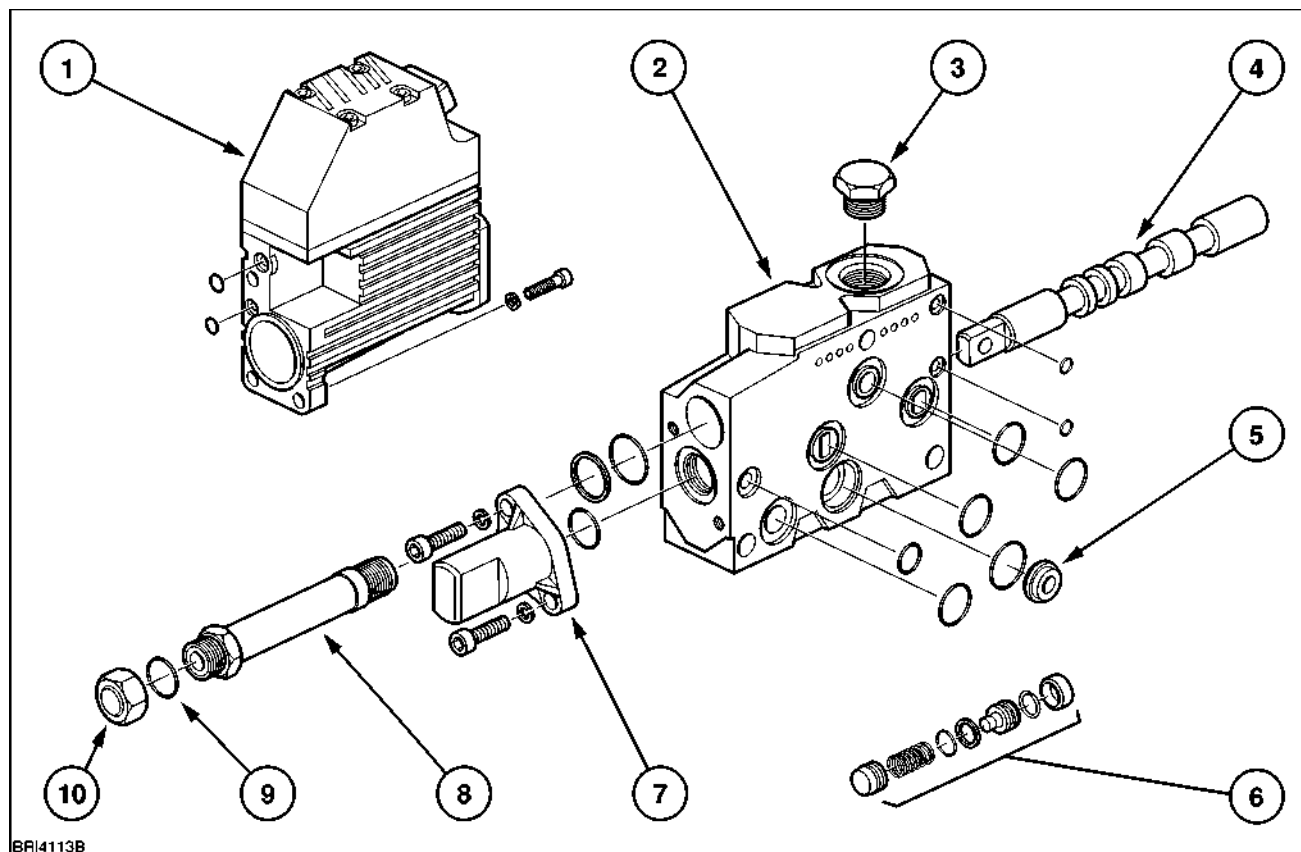
MAXXUM 100, MAXXUM 110, MAXXUM 115, MAXXUM 120, MAXXUM 125, MAXXUM 130, MAXXUM 140



BVE0601A 1

Mid-mount remote control valve - Exploded view

MAXXUM 110 Multicontroller [Z9BE40001 -], MAXXUM 110 Multicontroller [Z9BE60001 -], MAXXUM 115 Multicontroller [Z9BE40001 -], MAXXUM 115 Multicontroller [Z9BE60001 -], MAXXUM 120 Multicontroller [Z9BE40001 -], MAXXUM 120 Multicontroller [Z9BE60001 -], MAXXUM 125 Multicontroller [Z9BE40001 -], MAXXUM 125 Multicontroller [Z9BE60001 -], MAXXUM 130 Multicontroller [Z9BE40001 -], MAXXUM 130 Multicontroller [Z9BE60001 -], MAXXUM 140 Multicontroller [Z9BE40001 -], MAXXUM 140 Multicontroller [Z9BE60001 -]



BRI4113B

BAIL06CCM125FSA 1

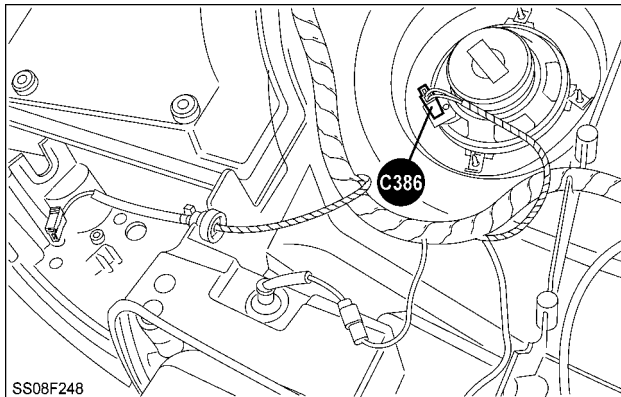
Mid Mount Valve Components

- | | |
|-----------------------|--------------------|
| 1. Spool Control Unit | 2. Valve slice |
| 3. Plug | 4. Spool Valve |
| 5. Load Sensing Valve | 6. Check Valve |
| 7. End Cap | 8. Connection port |
| 9. 'O' Ring | 10. Nut |

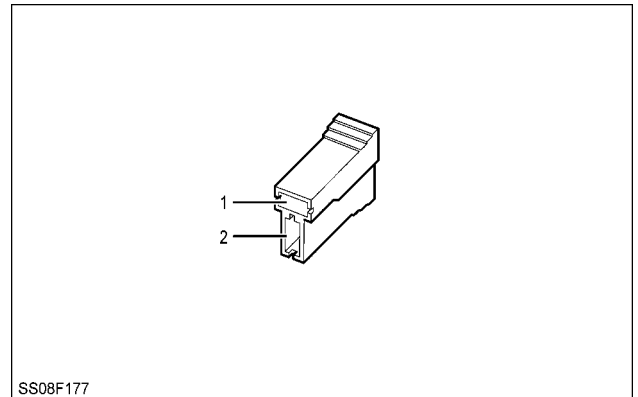
C386 LEFT HAND REAR RADIO SPEAKER

POS.	WIRE NUMBER	CIRCUIT REFERENCE
1	3097 (G)	SPEAKER RR-LHS +
2	3098 (G)	SPEAKER RR-LHS -

NOTE: For the wiring color code refer to, **Wiring harness - Overview (A.30.A)**.



SS08F248 13

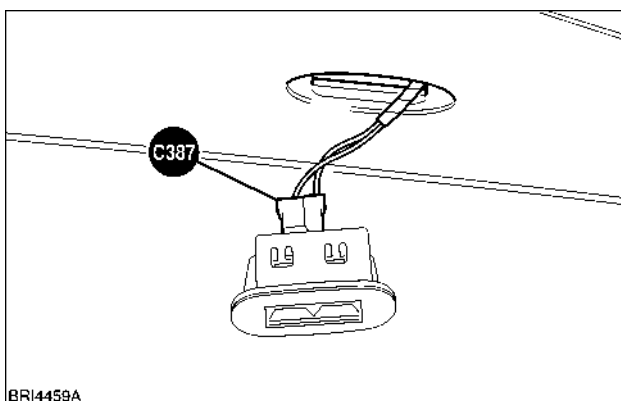


SS08F177 14

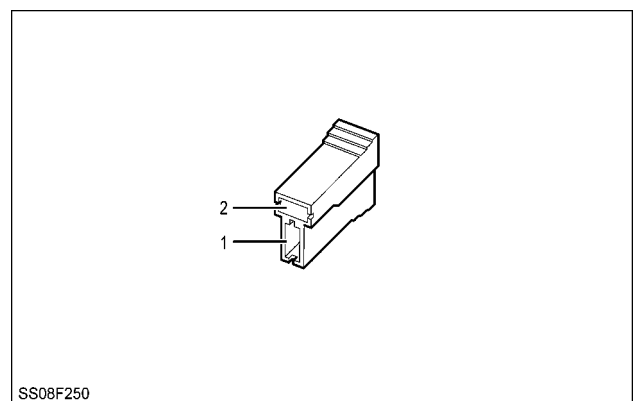
REAR LEFT HAND SIDE CAB ROOF**C387 RIGHT HAND CONSOLE LAMP**

POS.	WIRE NUMBER	CIRCUIT REFERENCE
1	57H / 57DH (B)	EARTH (ALL)
2	1013B (R) / 1013G (R)	RIGHT HAND LAMPS

NOTE: For the wiring color code refer to, **Wiring harness - Overview (A.30.A)**.



C387-BR14459A 15



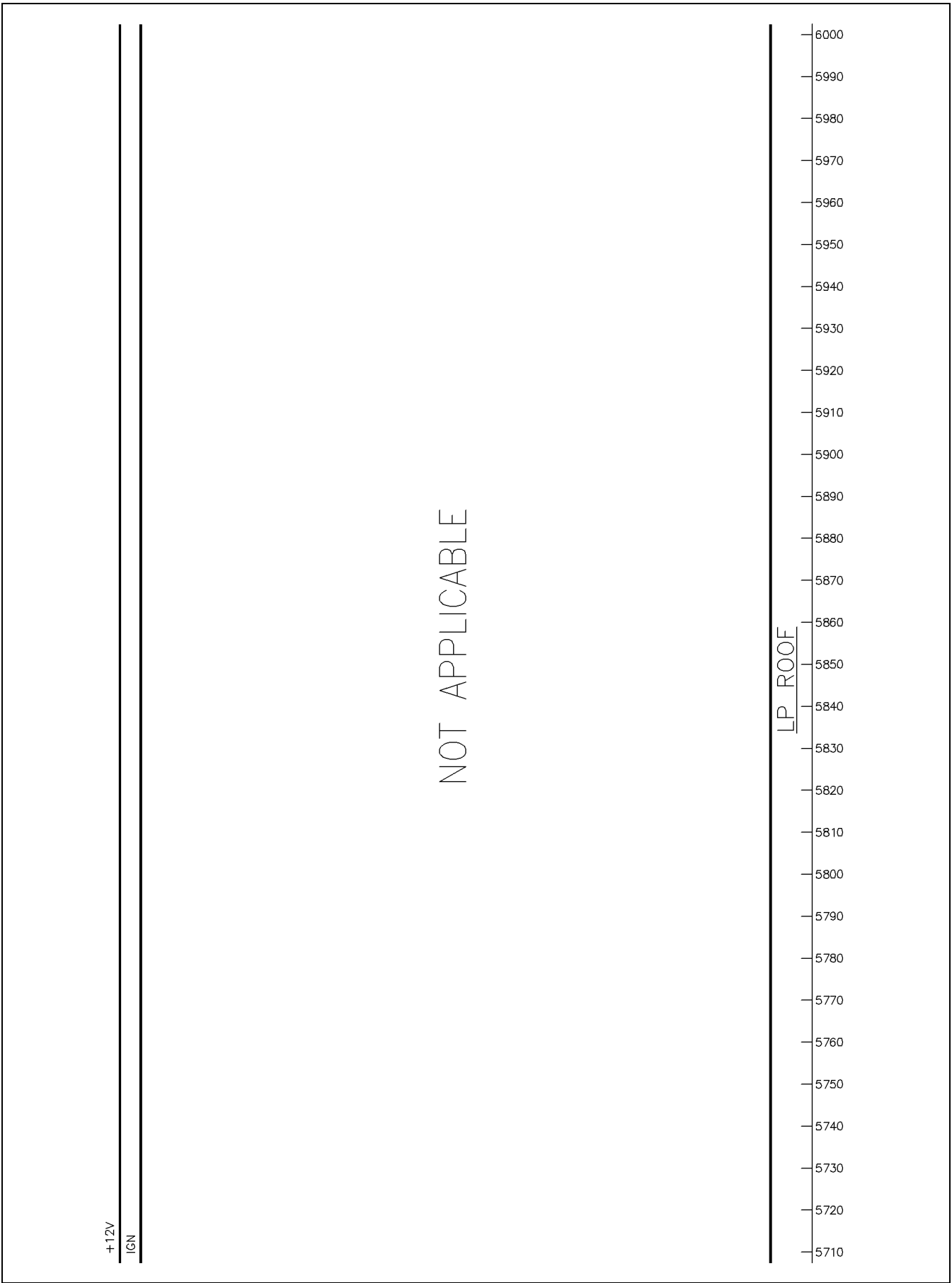
SS08F250 16

RIGHT HAND SIDE INTERIOR CAB ROOF

Wiring harness - Electrical schematic frame 39 Air Con - Common

MAXXUM 100 2v W/Cab 24x24, MAXXUM 110 2v W/Cab 24x24, MAXXUM 115 2v W/Cab 24x24, MAXXUM 125 2v W/Cab 24x24, MAXXUM 140 2v W/Cab 24x24

Component	Connector	Description					
E4	C010	Air Con Compressor					
F3		Air Con Clutch Fuse 10 A					
F5		Blower Motor Fuse 30 A					
F18		Electric Seat Fuse 15 A					
F44		Front Implement Socket B+ Fuse 25 A					
K6		Blower Motor Relay					
K19		Compressor Clutch Feed Relay					
S64	C011	Air Con Pressure Switch					
Additional Connectors: C269							
Wire Colour Codes							
B	Black	R	Red	LG	Light Green	K	Pink
N	Brown	O	Orange	U	Blue	W	White
LN	Light Brown	Y	Yellow	TQ	Turquoise		
S	Slate	G	Green	L	Lilac		



ELECTRICAL POWER SYSTEM - General specification

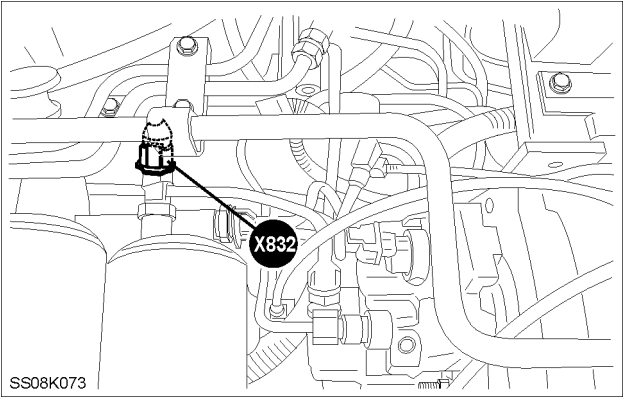
MAXXUM 110 Multicontroller [Z9BE40001 -], MAXXUM 110 Multicontroller [Z9BE60001 -], MAXXUM 115 Multicontroller [Z9BE40001 -], MAXXUM 115 Multicontroller [Z9BE60001 -], MAXXUM 120 Multicontroller [Z9BE40001 -], MAXXUM 120 Multicontroller [Z9BE60001 -], MAXXUM 125 Multicontroller [Z9BE40001 -], MAXXUM 125 Multicontroller [Z9BE60001 -], MAXXUM 130 Multicontroller [Z9BE40001 -], MAXXUM 130 Multicontroller [Z9BE60001 -], MAXXUM 140 Multicontroller [Z9BE40001 -], MAXXUM 140 Multicontroller [Z9BE60001 -]

Description	All Models
Alternator	ISKRA, 12 V , 120 A (optional 150 A)
Battery	Minimum maintenance 12 V 176 Ah (1300 cca)
Starting motor	Positive engagement, solenoid operated 4.2 kW - geared reduction
Cold starting aid	Optional inlet manifold grid heater (80 A) and fuel heater
Bulb rating and type	
- headlights	60/55 W - H4
- parking lights (front)	5 W - R5 W
- parking lights (rear)	5 W - P 21/5 W
- work lights (hi-mount rear, on C-pillar and grabrail)	12 V 55 W - H3
- turn indicators (front)	21 W - PY 21 W
- turn indicators (rear)	21 W - R 21 W or PY 21 W
- stop lights	21 W - P 21/5 W
- licence plate lights	5 W - R5 W
- rotating beacon	55 W - H1
- interior / step light	12 V R 10 W
- HID Xenon work lights rear roof	HID DIS 12 V 35 W
- work lights hood	12 V 50 W - GE886
- SMV (slow moving vehicle) lights (N. America only)	21 W-P21 W
and extremity lights	
- roof front work lights	12.8 V 50 W - GE885

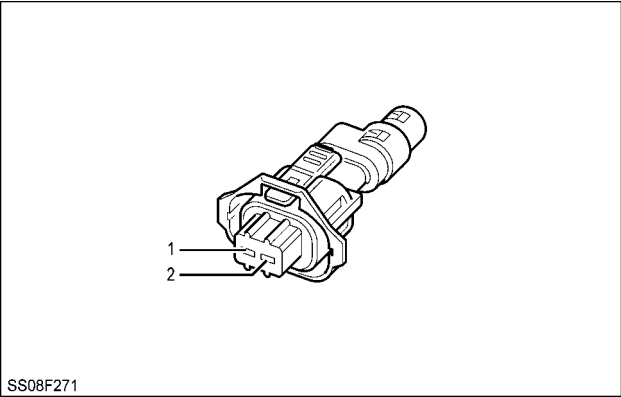
X832 FUEL TEMPERATURE SENSOR

POS.	WIRE NUMBER	CIRCUIT REFERENCE
1	W/U	
2	O/B	

NOTE: For the wiring color code refer to, **Wiring harness - Overview (A.30.A)**.



SS08K073 5



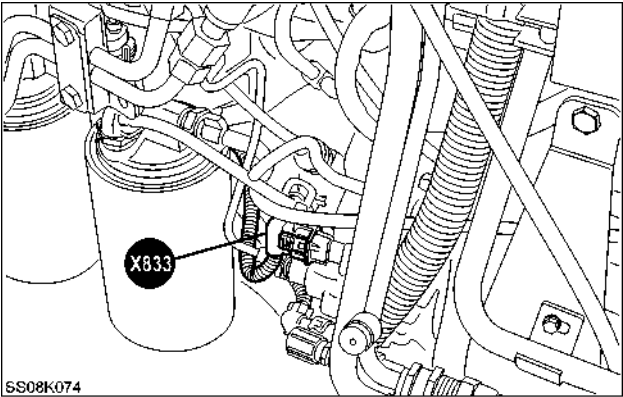
SS08F271 6

LEFT HAND ENGINE

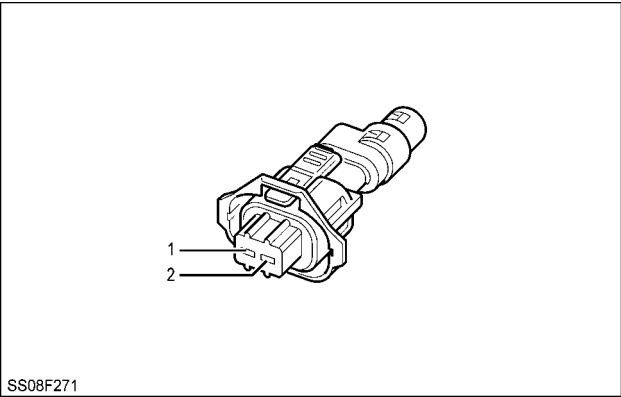
X833 HIGH PRESSURE PUMP

POS.	WIRE NUMBER	CIRCUIT REFERENCE
1	G	
2	O	

NOTE: For the wiring color code refer to, **Wiring harness - Overview (A.30.A)**.

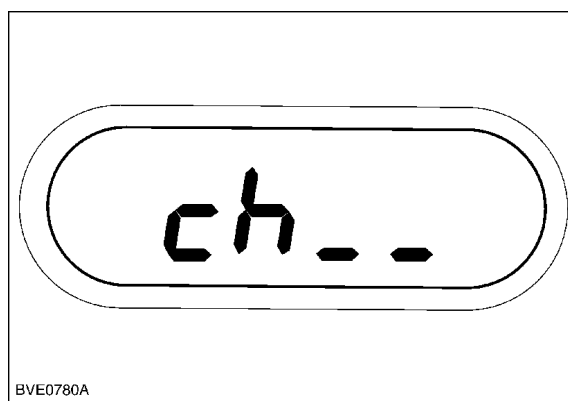


SS08K074 7



SS08F271 8

REAR LEFT HAND ENGINE



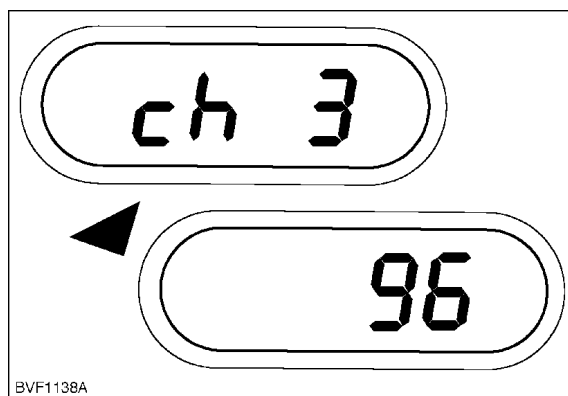
BVE0780A_543 38

The required channel can be selected by using the "h" and "m" keys. After a delay the value will be displayed. Compare the value displayed with the typical reading shown in the table below.

NOTE: The value is the input voltage or signal into the controller. This cannot be directly translated into a voltage due to the internal processes of the controller. A zero equates to **0 volts**.

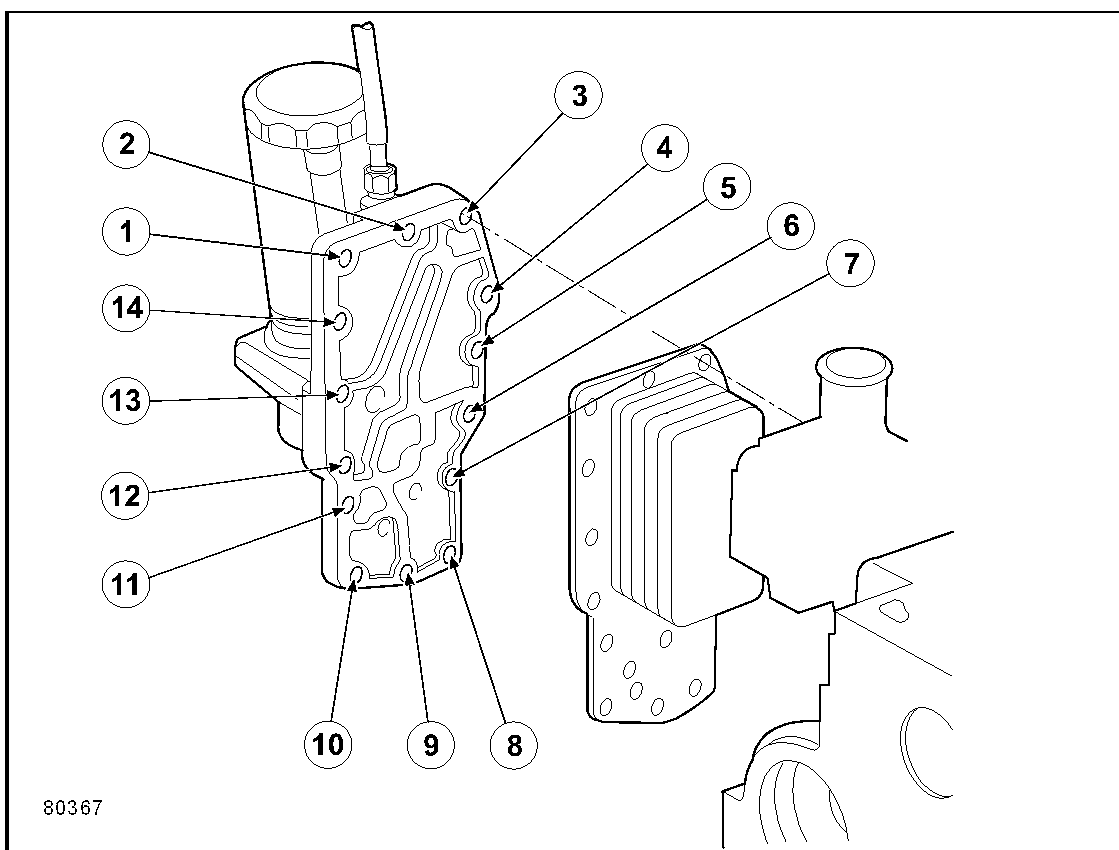
If the value displayed varies by more than **10 %** to that shown in the table below, a fault is indicated in either the component or the wiring harness relevant to that channel.

NOTE: Check the connectors of the effected circuit, including the controller connectors, prior to replacing any components.



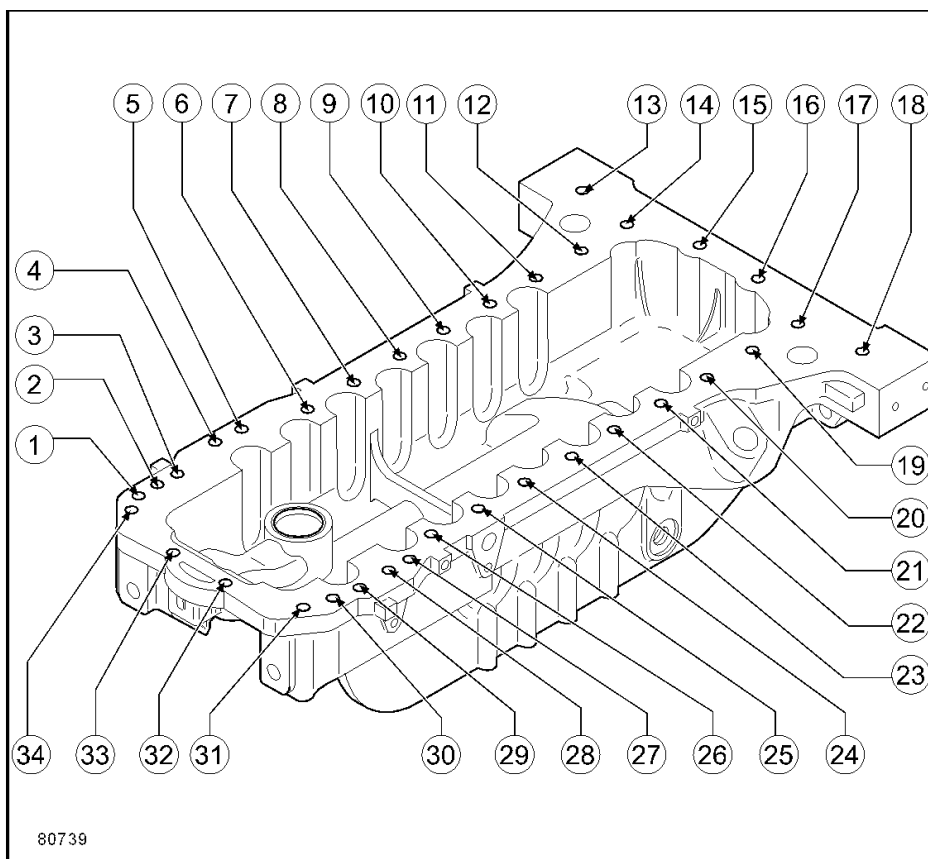
BVF1138A 39

Channel	Description	Typical Reading	Notes
3	Fuse 12 sense	96	
5	5 Volts sensor supply	49	
6	8 Volts sensor supply	79	
7	+12 Volt VF input (See explanation)	44	
8	+12 Volt VD input (See explanation)	41 clutch pedal up, FNR in gear 0 clutch pedal down, FNR in neutral	Tractor will drive if the engine is running
9	+12 Volt VH input (See explanation)	44	
10	+12 Volt VT input (See explanation)	44	
18	Engine rev/min	100 % @ 3000 rev/min	
19	Wheel speed	100 % @ 50 Km/h	
20	Remote 1 lever position potentiometer	40 Lower (retract) 10 Raise (extend) 50 Float 25 Neutral	



80367_89 7

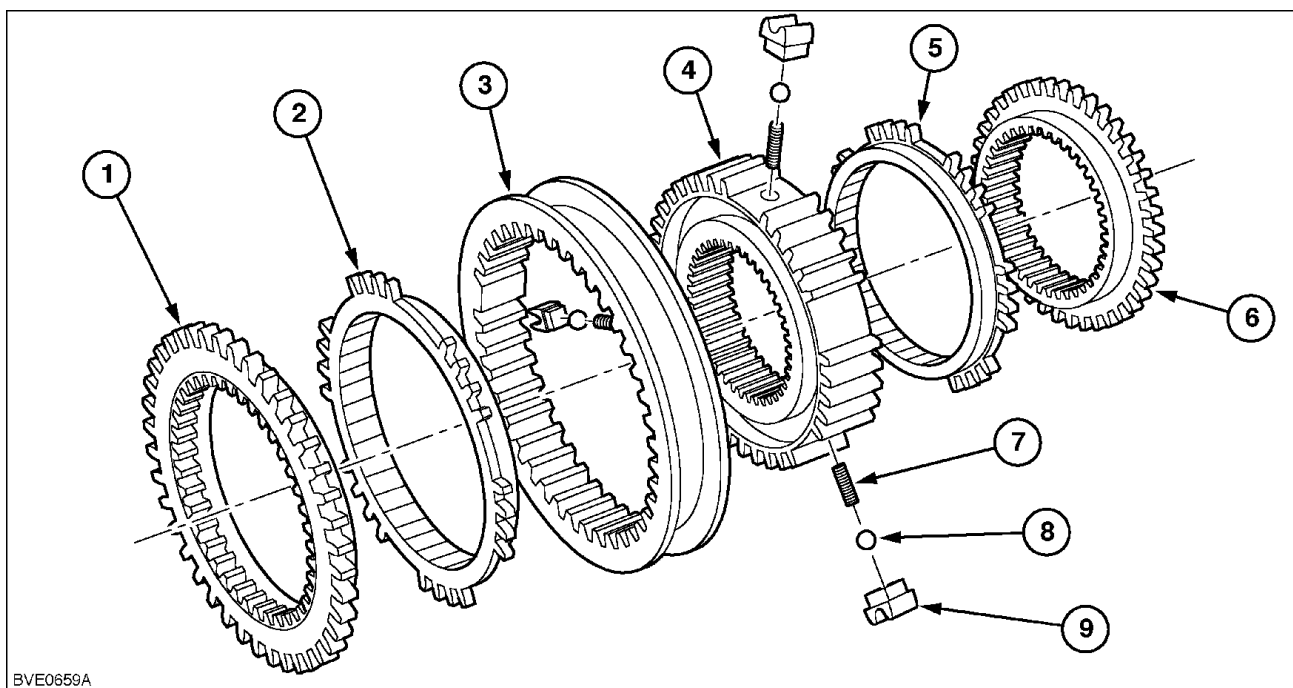
Tightening sequence for engine oil sump bolts (6 cylinder engines)



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Tightening sequence for engine oil sump (4 cylinder engines)

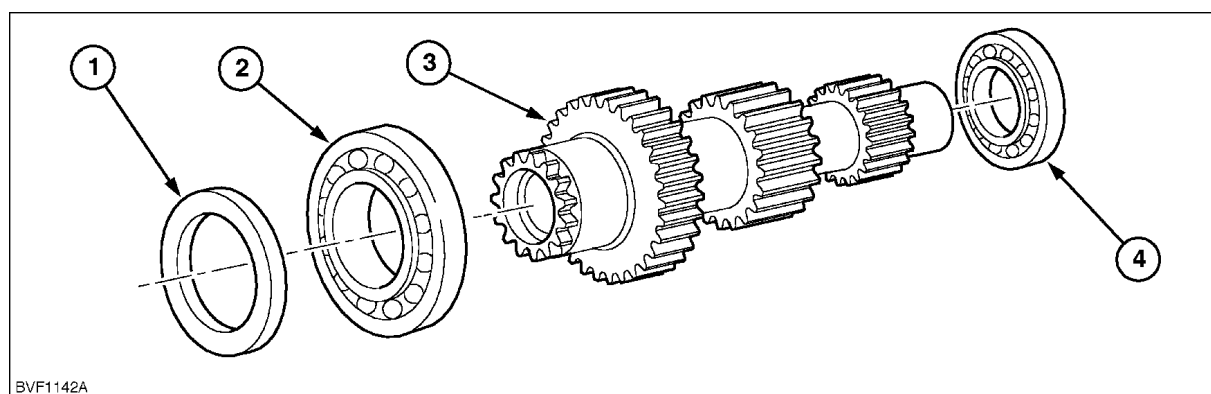
High/Medium Synchronizer



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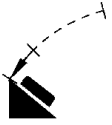
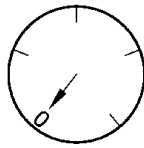
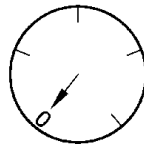
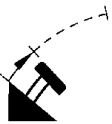
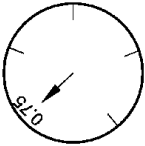
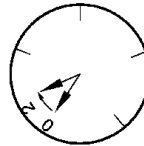
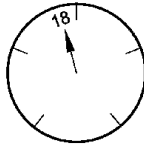
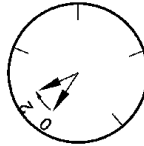
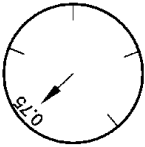
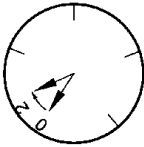
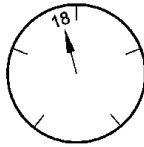
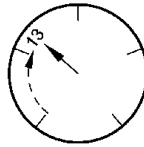
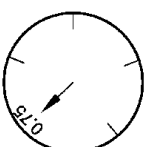
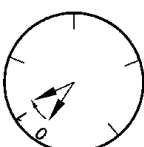
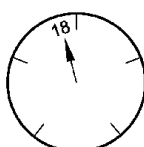
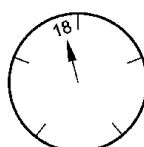
- | | | | |
|---|---------------------|---|---------------------|
| 1 | Outer cone/coupling | 2 | Friction cone |
| 3 | Sliding coupler | 4 | Centre hub |
| 5 | Friction cone | 6 | Outer cone/coupling |
| 7 | Detent guide | 8 | |
| 9 | Detent guide | | |

High/Medium and Low Range Cluster Shaft



BVF1142A 6

- | | | | |
|---|---------------|---|---------|
| 1 | Spacer ring | 2 | Bearing |
| 3 | Cluster shaft | 4 | Bearing |

	C1/2 LUBE	C3/4 LUBE	C3	C4	
					A
					B
					C
					D

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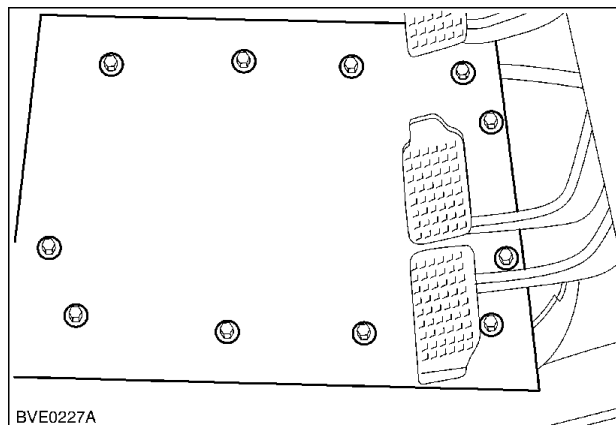
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Clutch Lube Pressure Tests - Gear 9 Selected

- | | | |
|----|---------------------------------------|--|
| A. | C2 and C4
C1/C2 Lube
C3/C4 Lube | Zero Pressure
Approx. 0.5 bar
Approx. 0.5 bar |
| B. | C2
C4
C1/C2 Lube
C1/C2 Lube | Full Pressure
0 - 2 bar
Approx. 0.75 bar
Approx. 2 bar |
| C. | C2
C4
C1/C2 Lube
C1/C2 Lube | Full Pressure
Full Pressure
Approx. 0.75 bar
Reduced to 1 bar |

Forward / Reverse and 1-4 / 5-8 Range Synchroniser Pressure Test

7. Slide the operator seat fully rearward.
Remove the rubber mat from the cab.
Remove the cab floor panel from the cab.

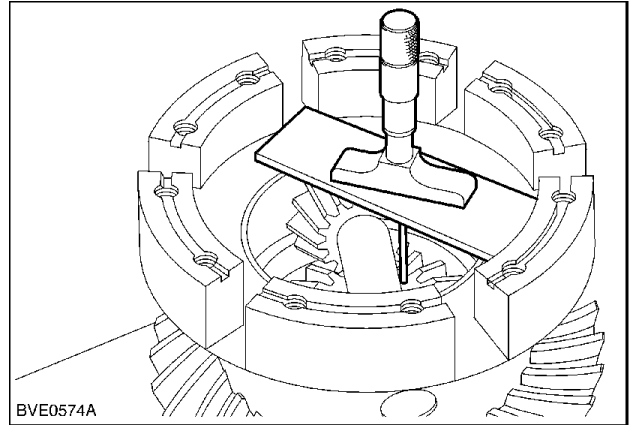


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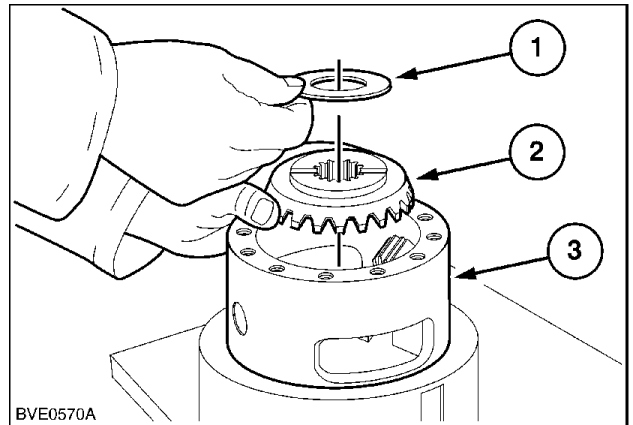
Differential - Clearance (Class 3+ Axle)

1. The end float required between the sun and planet gears is **0.25 mm**. To calculate the size of thrust washer required, carry out the following:
2. Using a depth gauge and the locally fabricated depth gauge adaptor plate, measure against the front of the sun gear. Do this measurement in two opposite positions and take a mean calculation of the two readings. This measurement is H1.



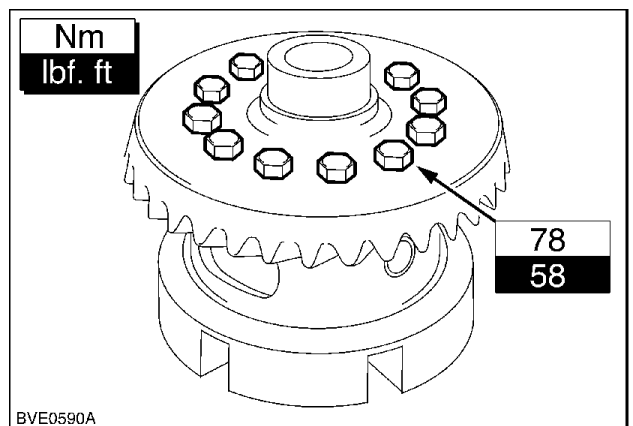
BVE0574A 1

3. Carry out the same measurement again but using only one thrust washer as a test shim. This measurement is H2
4. Determine the thickness of the shim to be installed as follows:
Remove the thrust washer and measure the thickness. This measurement is S1.
Thrust washer size = $(H2 - H1) + S1 - 0.25 \text{ mm}$.
5. Install the new calculated thrust washer (1) and the sun gear (2) into the differential cage (3).



BVE0570A 2

6. Install the crown wheel onto the differential cage. Tighten the retaining bolts to the specified torque value.



BVE0590A 3