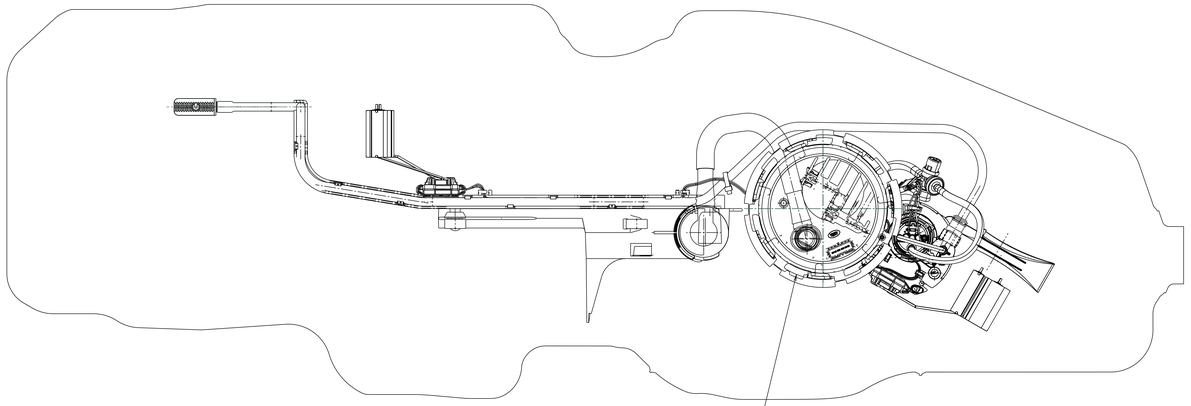
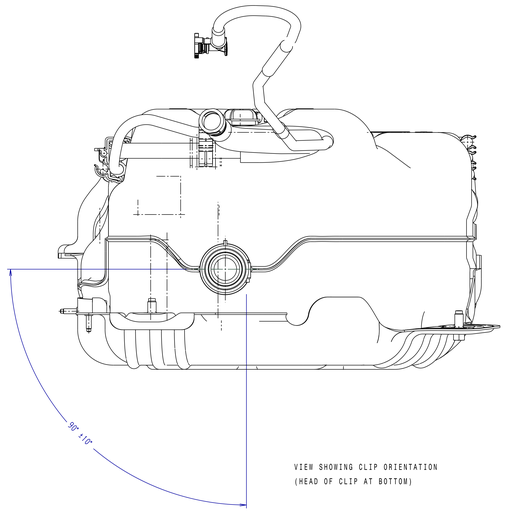
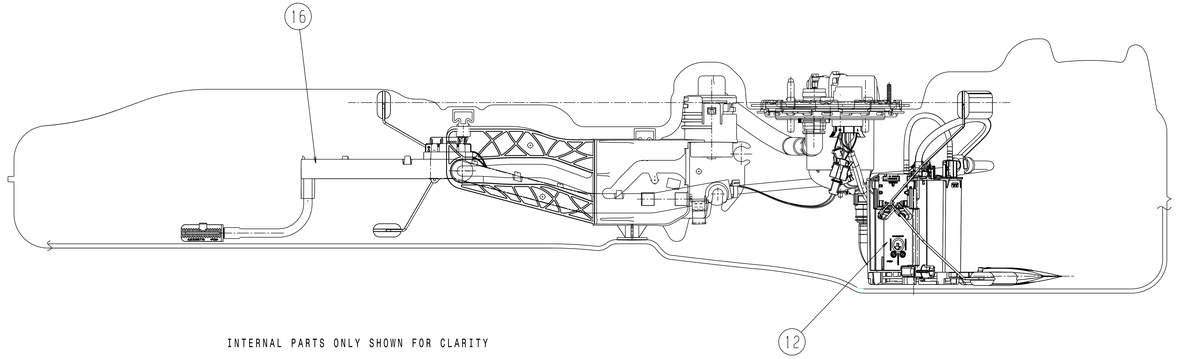


(CB) FLANGE TAB LOCATED IN THIS POSITION



VIEW SHOWING CLIP ORIENTATION
(HEAD OF CLIP AT BOTTOM)



INTERNAL PARTS ONLY SHOWN FOR CLARITY

DRAWING	AH22-9K007-AF	REV 4	SHT 3 OF 3
CAD FILE	AH22-9K007-A-DWG-01	JAGUAR CARS LIMITED	LAND ROVER

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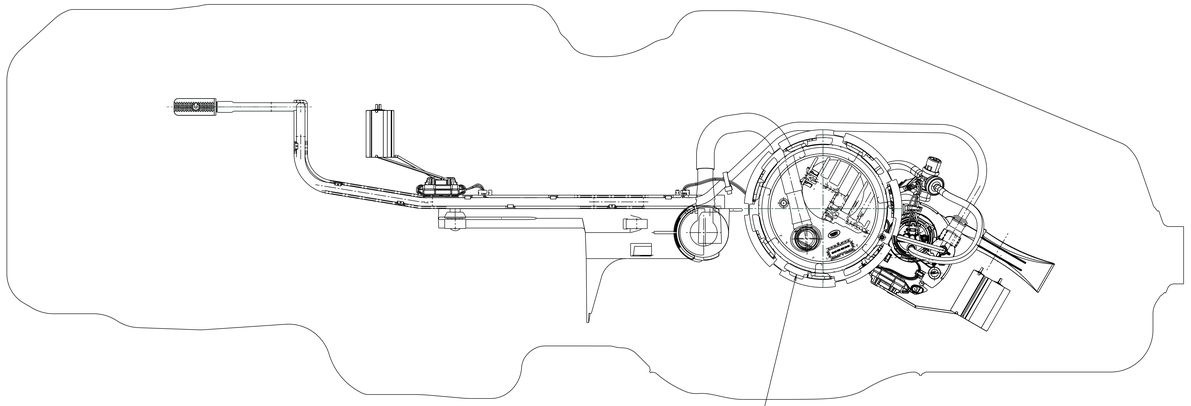

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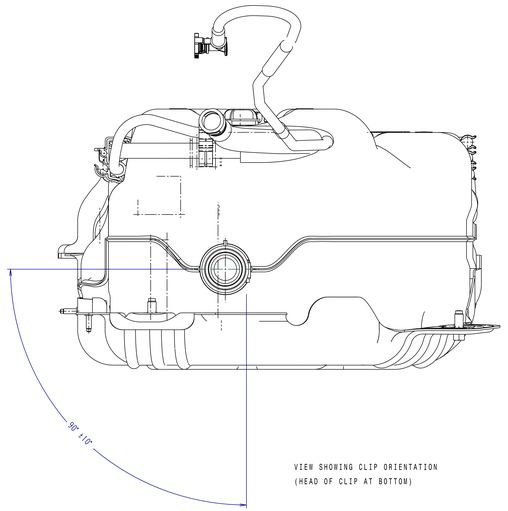

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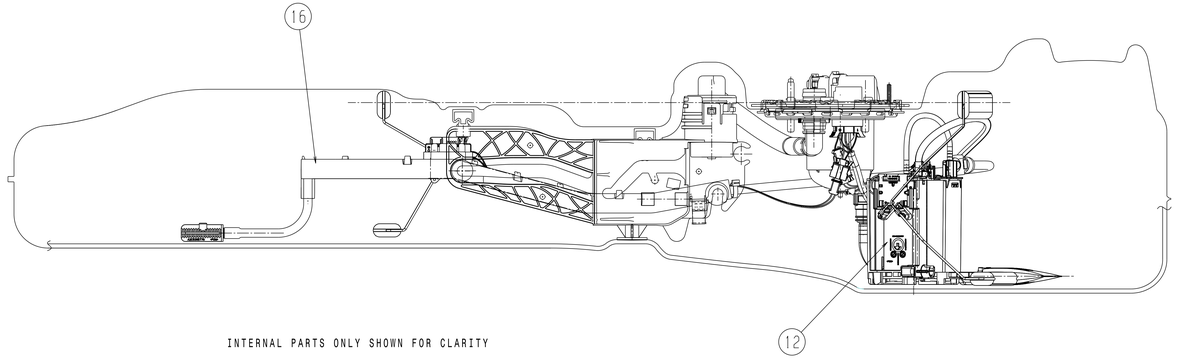

INTERNAL PARTS ONLY SHOWN FOR CLARITY

DRAWING	AH22-9K007-AF	REV 4	SHT 3 OF 3
CAD FILE	AH22-9K007-A-DWG-01	JAGUAR CARS LIMITED	LAND ROVER

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▽ THIS COMPONENT MUST COMPLY WITH THE REQUIREMENTS OF ENGINEERING SPECIFICATION ES 3U5A-9002-BB, EXCEPT FOR SECTION 3.6 CONTAMINATION WHERE NOTE BELOW APPLIES

TOTAL INTERNAL DEBRIS MUST NOT EXCEED 4.0 mg WHEN TESTED TO LRLTM 30.IC101 OR SIMILAR APPROVED METHOD
THE MAXIMUM PERMISSIBLE PARTICLE SIZE MUST NOT EXCEED 400 microns/0.6mg WHEN MEASURED IN ACCORDANCE WITH LRLTM 30.DD.103.

LOCKING RING SYSTEM TO MEET THE REQUIREMENTS OF SAE J2587.

COMPONENT TO BE MARKED IN LINE WITH FORD MOTOR COMPANY ENGINEERING CAD & DRAFTING STANDARD E-3 (BRANDING)
COMPONENT TO COMPLY WITH FORD MOTOR COMPANY ENGINEERING CAD & DRAFTING STANDARD E-4 (IDENTIFICATION OF POLYMERIC MATERIALS).

(D) ▽ 100% LEAK TEST: PRESSURE DIFFERENTIAL TEST USING HELIUM. LEAK RATE TO BE LESS THAN 1.4 x 10 mbar l/s AT 140mb PRESSURE DIFFERENTIAL AFTER LEAK TESTING NO PART TO BE REMOVED OR CHANGED WITHOUT RETESTING

▽ 100% FUEL PUMP MODULE AND SENDER UNIT AND TANK VALVE FUNCTIONALITY TESTS TO BE CARRIED OUT IN LINE WITH PROCESS CONTROL DOCUMENTS AGREED WITH JAGUAR / LAND ROVER PRODUCT ENGINEERING AT STA DEPARTMENTS

▽ PUMP START TEST - MEDIUM AIR, VOLTAGE 6±0.1V,
MEASURING TIME 1<t<5 SECS,
CURRENT <4A, MAX 2 TESTS.

▽ SENDER UNIT(S) ROLL OVER TEST TO CONFIRM -
SENDER FLOAT POSITION EMPTY RESISTANCE VALUE WITHIN TOLERANCE: 51.2 ±1 OHMS
SENDER FLOAT POSITION FULL RESISTANCE VALUE WITHIN TOLERANCE: 992.2 ±10.5 OHMS
SENDER FLOAT POSITION BACK TO EMPTY RESISTANCE VALUE WITHIN TOLERANCE: 51.2 ±1 OHMS

(D) FOR ELECTRICAL CONNECTOR PIN OUT INFORMATION REFER TO DRAWING AH22-9039-AB LATEST ISSUE.

▽ 100% TANK VENT SYSTEM - VACUUM TEST
ROLL TANK OVER 180° FROM NORMAL VEHICLE FITTED POSITION,
APPLY A VACUUM OF AT LEAST - 150mb.
APPLY THE VACUUM TO LARGE BORE BREATHER.
EVACUATION TIME 5 SECS MINIMUM
STABILISATION TIME 10 SECS MINIMUM
LEAK CHECK FOR 20 SECS MINIMUM
LEAK RATE TO BE <50 ccm
RELEASE VACUUM, ROLL BACK TO NORMAL VEHICLE FITTED POSITION

(E1)(D) FULL TRACEABILITY TO BE INDELIBLY MARKED / LABELLED ON THIS ASSEMBLY WITH REGARD TO DAY, MONTH, YEAR, TIME, AND PART NUMBER

NO LUBRICANT TO BE USED DURING MANUFACTURE, TO ASSEMBLE COMPONENT OR PARTS OR ASSEMBLY TO VEHICLE WITHOUT PRIOR AGREEMENT AND AUTHORISATION FROM JAGUAR / LAND ROVER MATERIALS AND FUEL SYSTEMS ENGINEERING DEPARTMENTS

(E2) ▽ ITEM 6 -TIGHTEN TO 4.5Nm ± 0.5Nm
▽ ITEM 10 -TIGHTEN TO 3.5Nm ± 0.5Nm MAXIMUM TIGHTENING SPEED 350RPM
▽ ITEM 15 -TIGHTEN CAM LOCK TO CLOSURE STOP, TORQUE TO ACHIEVE THIS 250Nm±20Nm ANGULAR ROTATION START + FINISH TO BE MONITERED DURING ASSEMBLY.

AS SUPPLIED TO JAGUAR / LAND ROVER COMPONENT MUST BE FREE INTERNALLY FROM THE FOLLOWING:-
(D) - ALL MANUFACTURING AND PROCESS TEST FLUIDS
- ALL IN PROCESS PRESSURE TEST FLUIDS

(D) ▽ BREATHER STUB INTERNAL CONNECTION TO BE VERIFIED BY A 100% PUSH OFF TEST.

(D) EMPTY TO DESIGN CUT OFF = 89.1 litres (SEE FU-1047)

(D) USEABLE CAPACITY = 88.1 litres (SEE FU-1050)

FUEL FEED LINE TO BE CAPPED DURING ASSEMBLY,
TRANSPORT AND STORAGE. CAP(S) MUST PROTECT ANY SEALING SURFACES AND MUST REMAIN EFFECTIVE FOR PROLONGED STORAGE.
CAP(S) MUST EASILY BE REMOVED WITHOUT THE USE OF TOOLS, IT MUST NOT BE POSSIBLE TO FIT ASSEMBLY TO MATING COMPONENTS WITH CAP(S) STILL IN PLACE

COMPONENTS TO BE STOWED, PALLETISED, TRANSPORTED, AND STORED SUCH THAT NO INTERNAL OR EXTERNAL DAMAGE CAN OCCUR TO THE ASSEMBLY

(D) REFER TO FUEL TANK ASSEMBLY STOWAGE POSITION DOCUMENT FOR DELIVERED CONDITION TO SOLIHULL ASSEMBLY PLANT

ASSEMBLY TO BE FREE FROM FLASH, BURRS, SHARP EDGES AND ANY OTHER IMPERFECTIONS THAT MAY CAUSE INJURY DURING HANDLING OR THAT WOULD BE DETRIMENTAL TO ITS ASSEMBLY OR PERFORMANCE.

CHANGES AFFECTING DESIGN, COMPOSITION, OR PROCESSING OF THE ASSEMBLY OR SUB COMPONENTS PREVIOUSLY APPROVED FOR PRODUCTION REQUIRE PRIOR APPROVAL FROM JAGUAR / LAND ROVER PRODUCT ENGINEERING. REFER TO QS-9000

(D) FOR CURRENT RELEASE STATUS SEE THE WERS ENGINEERING NOTICE.

ALL SEALING SURFACES TO BE CLEAN AND FREE FROM ANY SURFACE IMPERFECTIONS (INCLUDING) HOLES, SPOTS, DENTS, FLASH AND OFFSET MOULDING LINES)

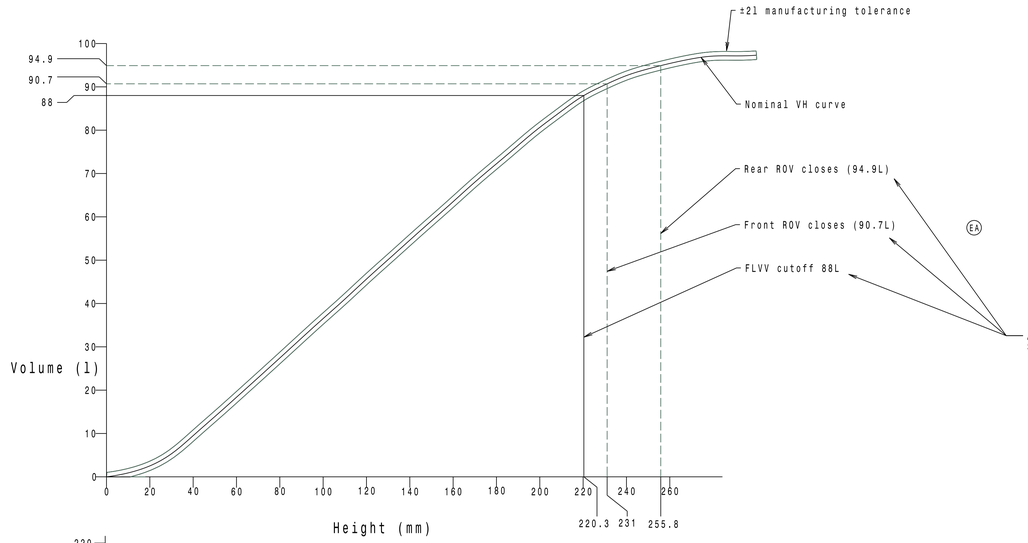
AFTER ASSEMBLY ALL HOSES . PIPES TO BE FREE FROM KINKS.

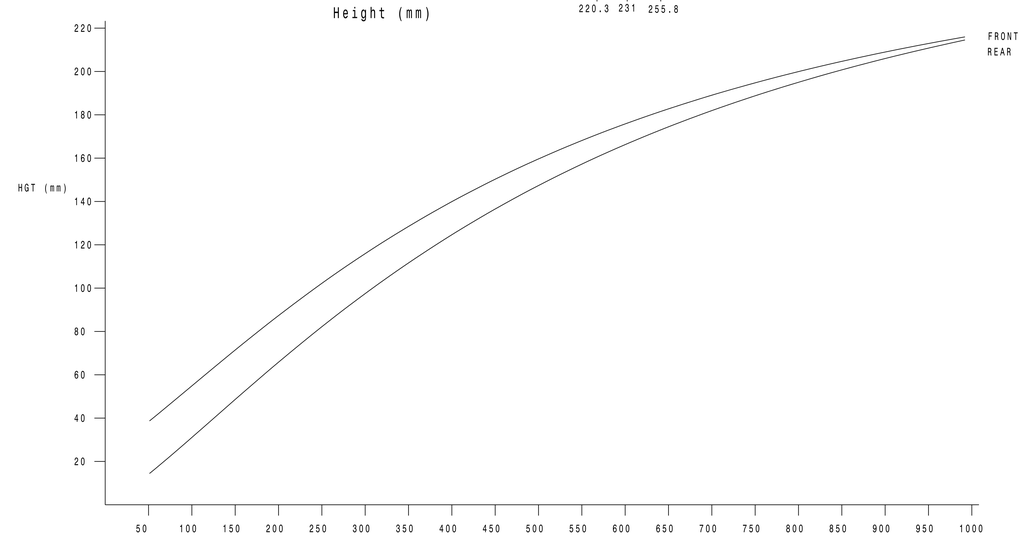
DO NOT USE HOSES / PIPES ATTACHED TO THIS ASSEMBLY TO REMOVE FROM STILLAGE OR CARRY COMPONENT.

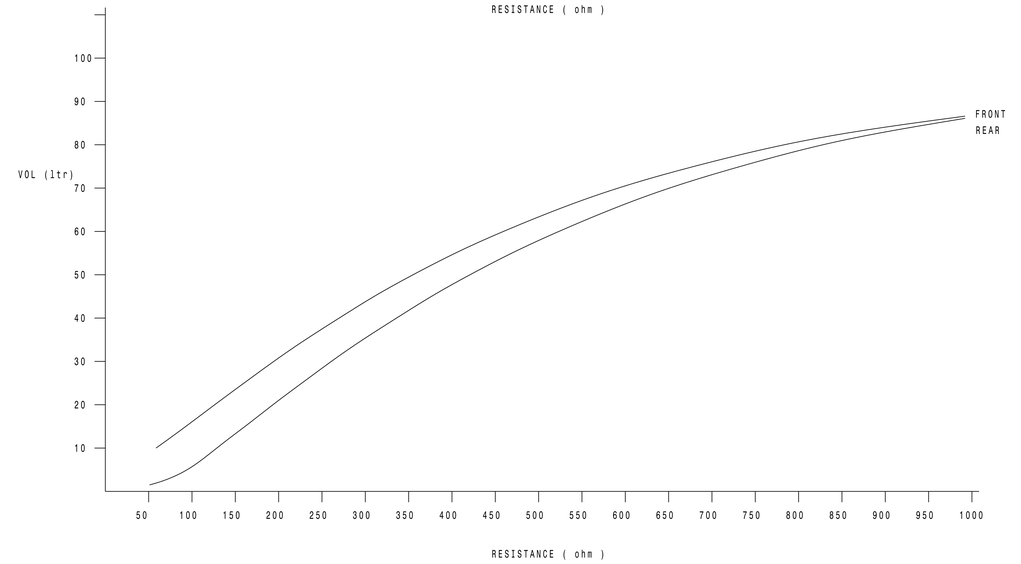
ALL PROTECTIVE CAPS TO BE REMOVED PRIOR TO ASSEMBLY OF COMPONENT TO VEHICLE.

SERVICE NOTE:
IF ITEM 13 FLNG FU/TNK IS REMOVED OR DISTURBED IN SERVICE A NEW GSKT-FU/TNK SDR, ITEM 14, MUST BE USED.

▽ CONTROL ITEM - THE ▽ ALSO IDENTIFIES CRITICAL CHARACTERISTICS DESIGNATED BY THE CROSS FUNCTIONAL TEAMS DEVELOPING THE PRODUCT. THESE AND ADDITIONAL CRITICAL CHARACTERISTICS IDENTIFIED BY PROCESS REVIEWS MUST APPEAR ON THE CONTROL PLANS ACCORDING TO QS-9000. THESE CONTROL PLANS REQUIRE PRODUCT ENGINEERING APPROVAL.







ORIGINAL LANDROVER MOD COLUMN

IS	INZ	MOD.No DETAILS	SIG. /DATE
		RELEASE OF AH32-9K007-AA UEP2 I 12097391 000	GPARKE35 20080307
		RELEASE OF AH32-9K007-AB VIEWS UPDATED GRAPHS ADDED B1.ITEM 1 WAS AH32-9D02-AA B2.ITEM 4 WAS AH32-9B050-AA B3.ITEM 20 AH22-14N200-AA DELETED UEP2 E 12169047 001	GPARKE35 20081001
		RELEASE OF AH32-9K007-AC ITEM 13 WAS AH32-9039-AA UEP2 E 12217504 000	pmorga65 20090316
		RELEASE OF AH32-9K007-AD SHT1 - VARIOUS NOTES AMMENDED SHT2 - ITEM 19 LABEL QTY WAS 3 VIEW UPDATED TO SUIT UEP2 E 12225706 000	pmorga65 20090417
EA		RELEASE OF AH32-9K007-AE SHT1 - GRAPH AMMENDED SHT2 - ITEM 4 WAS AH32-9B050-AB ITEM 6 WAS W500014-S442 ITEM 18 WAS AH32-9A316-CA UEP2 E 12241332 000	pmorga65 20090707

REVISIONS

LTRS	ORIGINATOR	CHECKER	ENGR APP	MATL APP

CAD FILE REMASTERED AND REDRAWN IN CATIA V5, AFTER LANDROVER ISSUE E

REVISION OF AH32-9K007-AE

E1 - TRACEABILITY NOTE AMENDED
E2 - ITEM 6 TORQUE WAS 3.5Nm

UEP2 E 12290904 000 20091113

PMORGA65	SCHECKLE	KWILKIN6	MATSENG

RELEASE OF AH32-9K007-AF

SEE SHEET 2

F1 - ITEM 13 WAS AH22-9039-AB

UEP2 E 50000292 000 20100823

PMORGA65	SCHECKLE	KWILKIN6	MATSENG

RELEASE OF AH32-9K007-AG

SEE SHEET 2

G1 - AH22-9B260-AA , AH22-9039-AC
AH32-9066-AA , AH32-9A316-CB
WERE UP SUFFIXED

UEP2 E 50019527 000 20111004

HHERUR	PREDHEAD	PWADSWOR	MATSENG

REFERENCE		DS-L320-100100-C810_05-10	
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT			
DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION na		3RD ANGLE PROJ DIMENSIONS ARE IN MILLIMETERS	
CAD TYPE K-CATIA5	CAD LOC. TCe	CAD FILE AH32-9K007-A-DWG-01 . 4	DTM IS MASTER
OPER. NO. NA	UNIT NA	DRAWING AH32-9K007-AG	
DESIGN GPARKE35	DETAIL NA	TITLE TNK + SDR ASY FUL (PETROL)	SHT 1 OF 3
CHECKED SWRIGH65	SAFETY NA		
SCALE 1:2	DATE 20091113	DIVISION JAGUAR LANDROVER PLANT GAYDON NA	

JAGUAR CARS LIMITED LAND ROVER

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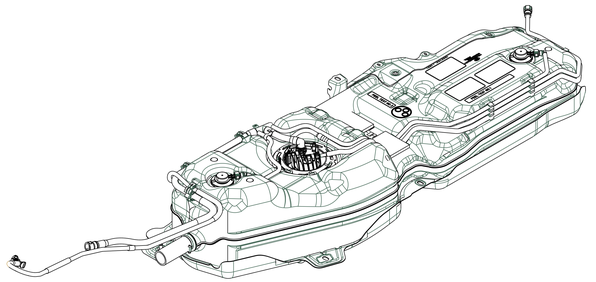
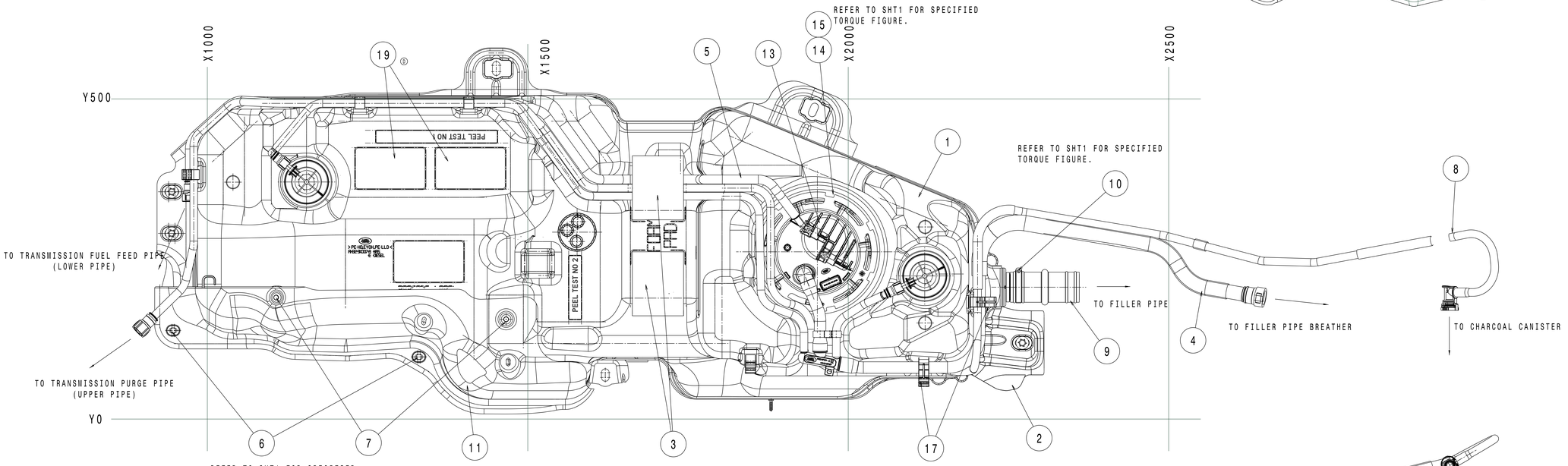
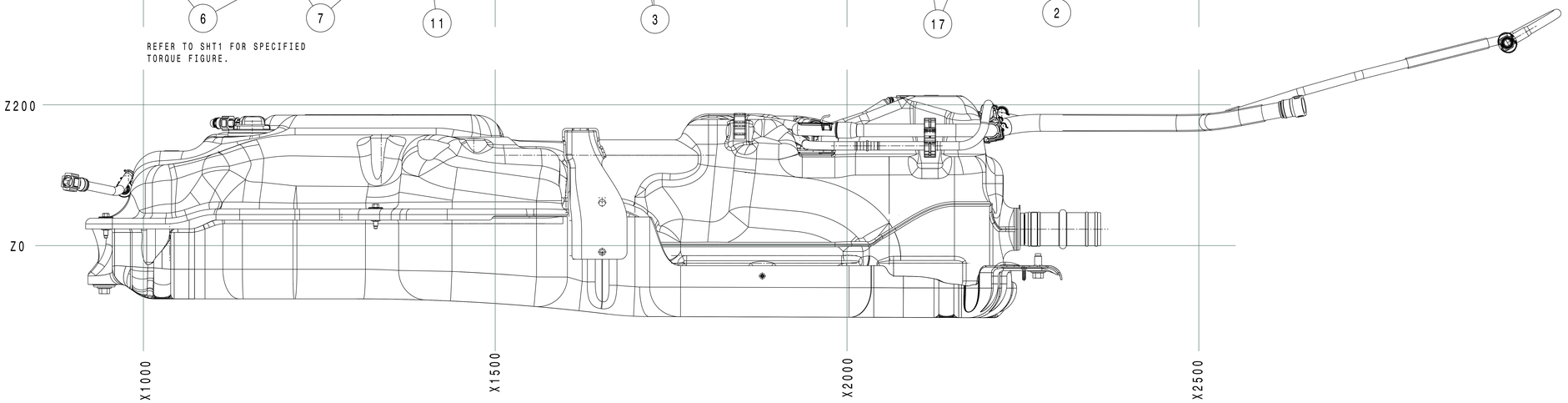
ITEM NO.	FORD PART NO.	DESCRIPTION	NO OFF	REMARKS
1	AH32-9002-AB	TNK ASY FUL	1	
2	5H22-9055-TB	STRP FU/TNK SUPT	1	
3	6H52-48781-BA	KIT FUL TNK STP	2	
4	AH32-9B050-AC	TUB-FUL/TNK VPR OLET	1	
5	AH22-9B286-AA	TUB ASY FUL SPLY	1	
6	W500215-S442	BOLT M6x25 PILOT	2	
7	UH12-0256-DDA	RIV-EYLT TYP	2	
8	AH32-9J328-AA	TUB-FUL/VPR TO STRG CNSTR	1	
9	8H22-9047-AA	HOS FU/TNK FILL	1	
10	UH12-1861-TA	CLIP	1	
11	5H22-9B007-EA	SHLD FU/TNK	1	
12	AH22-9B260-AB	PMP & RESVR ASY-FUL	1	
13	AH22-9039-AD	FLNG FU/TNK	1	
14	6H52-9276-AA	GSKT-FU/TNK SDR	1	
15	AH22-9C385-AA	RG-FU/PMP RET LK	1	
16	AH32-9066-AB	BRKT ASY-FU/TNK SUPT	1	
17	AH22-2A826-AA	CLP P/BRK CA RET	2	
18	AH32-9A316-CC	FLT ASY FU/TNK SDR	1	
19	-	LABEL	2	







DRAWING	AH32-9K007-AG	REV 4	SHT 2 OF 3
CAD FILE AH32-9K007-A-DWG-01	JAGUAR CARS LIMITED LAND ROVER		

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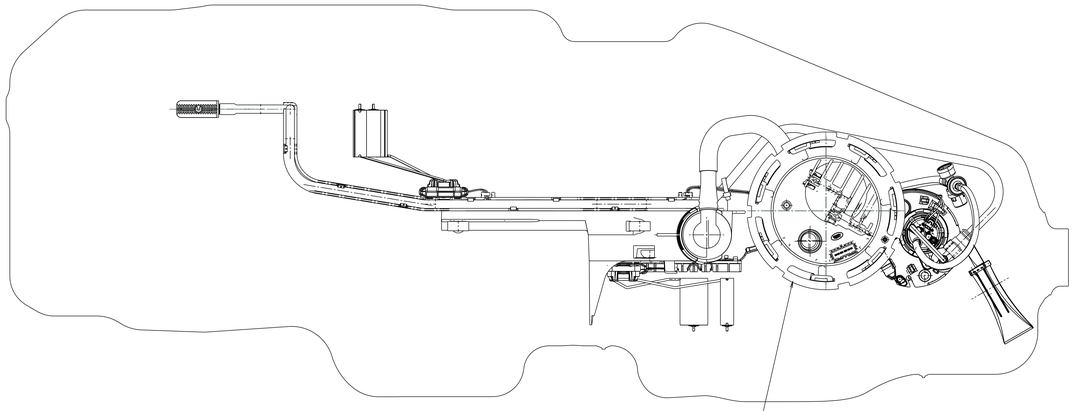
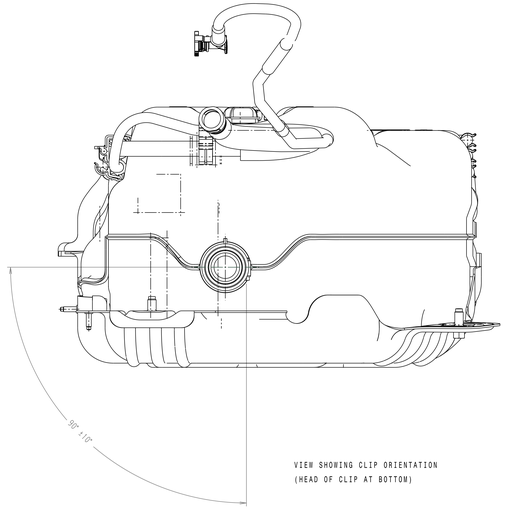
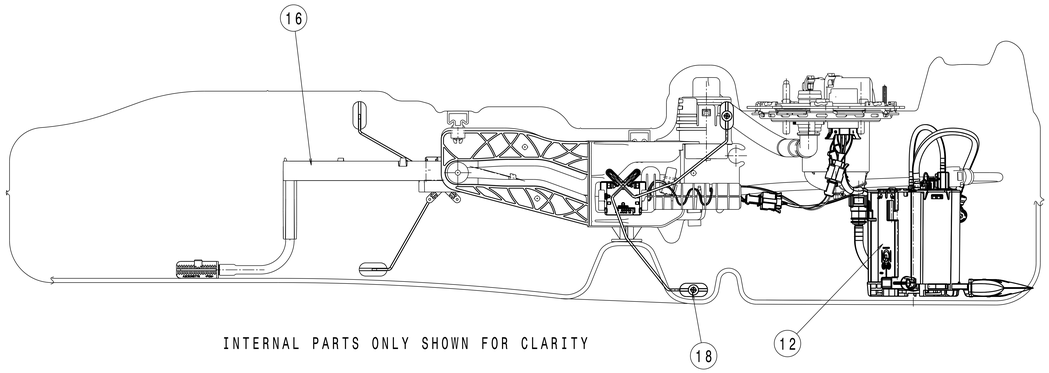


FLANGE TAB LOCATED IN THIS POSITION
(LOCKING RING NOT SHOWN)



VIEW SHOWING CLIP ORIENTATION
(HEAD OF CLIP AT BOTTOM)



INTERNAL PARTS ONLY SHOWN FOR CLARITY

DRAWING	AH32-9K007-AG	REV 4	SHT 3 OF 3
CAD FILE AH32-9K007-A-DWG-01	JAGUAR CARS LIMITED LAND ROVER		

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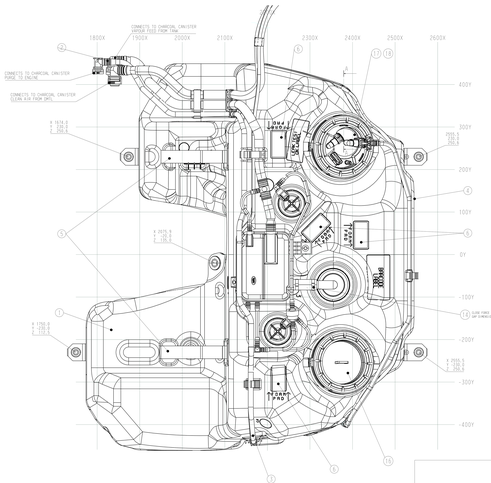
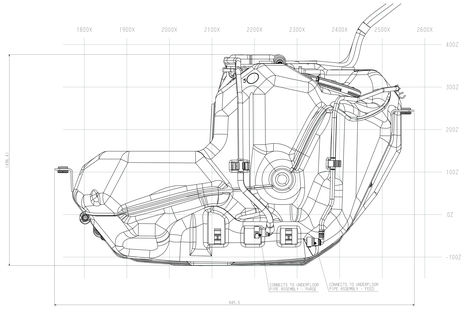
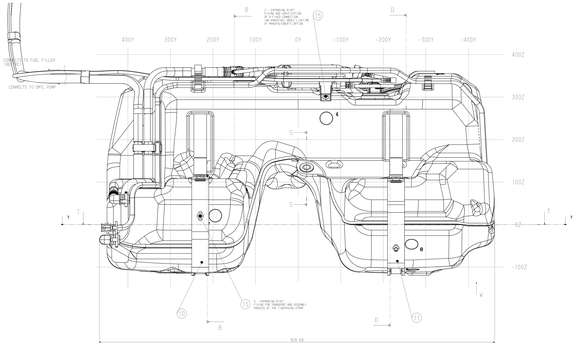
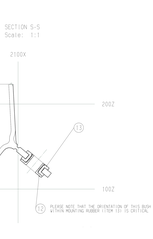








NO LUBRICANT TO BE USED DURING MANUFACTURE OF PART(S). TO ASSEMBLE COMPONENT PART(S) OR TO ASSEMBLE COMPONENT(S) TO VEHICLE UNLESS SPECIFICALLY APPROVED BY LAND ROVER MATERIALS AND FUEL SYSTEM ENGINEERING DEPARTMENTS.

COMPONENT MUST BE FREE (INTERNALLY FROM THE FOLLOWING:
- WAY AND ALL MANUFACTURING PROCESSING FLUIDS
- ANY PRESSURE TEST FLUIDS
- MANUFACTURING DEBRIS OR SWARF
- WATER, DIRT OR DUST INGRESS

TOTAL INTERNAL DEBRIS MUST NOT EXCEED 50.0 mg WHEN TESTED TO LRLTM 30.1E101 OR EQUIVALENT APPROVED METHOD.
THE LARGEST INDIVIDUAL PARTICLE SIZE MUST NOT EXCEED 400 microns/0.5mg WHEN MEASURED IN ACCORDANCE WITH LRLTM 30.1E101.

ASSEMBLIES TO BE PALLETISED / STILLAGED SUCH THAT NO INTERNAL OR EXTERNAL DAMAGE, OR CONTAMINATION, (INCLUDING WATER INGRESS), CAN occur DURING TRANSIT AND STORAGE.

ALL ORIFICES, VENT LINES, HOSES, ELECTRICAL CONNECTORS ETC. TO BE SEALED FOR TRANSPORTATION AND STORAGE PURPOSES USING BLANKING PLUGS OR TAPE OF AN EFFECTIVE SURFACE FINISH AND PROVIDED PERIODS OF STORAGE/PALLETISATION, MUST PROTECT AND SEAL END SURFACES AND BE EASILY REMOVABLE WITHOUT TOOLS.

IT MUST NOT BE POSSIBLE TO FIT ASSEMBLY TO MATING COMPONENTS WITH CAPS / PLUGS STILL IN PLACE

ASSEMBLY TO BE TRANSPORTED, STORED AND PALLETIZED SUCH THAT IT REMAINS FLAT IN THE NORMAL VEHICLE INSTALLATION POSITION SUCH THAT NO DAMAGE CAN OCCUR TO THE INTERNAL PARTS OF THE ASSEMBLY.

DO NOT USE HOSES / PIPES ATTACHED TO THIS ASSEMBLY TO REMOVE FROM STILLAGE OR CARRY COMPONENT.

FULL TRACE ABILITY TO BE OPERATED ON THIS COMPONENT / ASSEMBLY WITH REGARD TO: - DATE OF MANUFACTURE, ASSEMBLY LINE TEST DATA, (BUTTON), SECOND TIER COMPONENTS (PUMP).

LABEL TO ENSURE FULL TRACE ABILITY OF ASSEMBLY AND COMPONENT PARTS TO BE FITTED SUCH THAT IT CAN BE SEEN &/WITHOUT COMPONENT REMOVAL FROM VEHICLE.

ALL PARTS MUST BE FREE FROM FLUX, BURRS, SHARP EDGES AND ANY OTHER IMPERFECTIONS WHICH COULD CAUSE DAMAGE TO ANY SEALING OR FITTING ASSEMBLY OR PERFORMANCE OR MAY CAUSE INJURY DURING HANDLING.

NO CHANGE TO SUB-COMPONENTS, ASSEMBLY OR PROCESS TO BE UNDERTAKEN without PRIOR CONSULTATION AND AGREEMENT WITH LAND ROVER FUEL SYSTEMS ENGINEERING.

ALL SEALING SURFACES TO BE CLEAN AND FREE FROM SURFACE IMPERFECTIONS INCLUDING HOLES, SPOTS, DENTS, FLASH AND OFFSET MOULDING LINES

THE FOLLOWING FUEL LINE CLEANLINESS SPECIFICATION IS THE TOTAL CONTRIBUTION EQUAT FROM EVERY PART THIS ASSEMBLY

30-150µ	QUANTITY <108
150-400µ	QUANTITY <24
400-750µ	QUANTITY <4
>750µ	QUANTITY 0

REMOVE ALL DUST CAPS PRIOR TO ASSEMBLY OF COMPONENTS TO VEHICLE

HOSE ASSEMBLY - ENSURE ALL HOSES ARE FULLY ASSEMBLED UP TO SECOND PIPE BEAD OR ABUTMENT FACE AND ALIGNED WITH TYPING MARKS WHERE APPROPRIATE. ALL LOCATING FEATURES AND / OR CLIPS TO BE SECURE AND CORRECTLY POSITIONED IN LINE WITH DRAWING.

▽ 1999 LEAK TEST
LEAK TEST TO ES/VDA-5000-AC

1999 FUEL SUPPLY AND GAUGE UNIT FUNCTIONALITY TEST TO BE CARRIED OUT IN LINE WITH PROCESS CONTROL DOCUMENTS AGREED WITH LAND ROVER FUEL SYSTEMS ENGINEERING
PUMP - PUMP START / RUN DRY
PUMP - PUMP START / RUN DRAW / PRESSURE CHECK
TEST VOLTAGE = 9V - CURRENT DRAW = 0.1 - 5A - TIME = 0.5s - MAX 3 TESTS PER PUMP
SENDER UNIT - CHECK RESISTANCE FULL = 240 Ω ± 10.5Ω, EMPTY = 10 Ω ± 1Ω
SENDER VALUES & EMPTY = 10.2 ± 0.5 Ω MID FULL = 240.2 ± 10.5Ω

CLAMPING FOR ITEMS 13 & 14 TO BE CLEAR OF TANK/NETS ETC.
CLAMPING FOR CLOSED RS SHOWN
POSITION OF EAR AFTER ASSEMBLY = 15 TO BE CLEAR OF TANK/NETS ETC.
ASSEMBLY OF EAR CLAMP ONLY WITH CLAMP MANUFACTURERS RECOMMENDED TOOL WITH EAR HELD DOWN DEVICE

8.0MM (SEE NOTE)

PLASTIC MATERIAL IDENTIFICATION MARKING TO COMPLY WITH FORD STANDARD EX

COMPONENT TO COMPLY WITH FORD ENGINEERING SPECIFICATION ES-3L6A-9G6D-BB (HEADSPACE, SEEP-OMS, E.G., 3.6, 3.6, 3.2, 3.1) SEE ITEM 3 FOR WALL THICKNESS DIM SECTION 2.6 DEEP TEST AT 3 BAR (45 LBS) JOB1

THIS COMPONENT IS TO COMPLY with THE SPECIFICATION DETAILED IN THE DESIGN VERIFICATION PLAN.

DVP GENERAL VEHICLE NAS/ECE - L/R SYSTEMS DEVRY 4870.100

DVP COMPONENT - FUEL TANKS - SEE KIA TEST REPORTS

DVP COMPONENT FOR MFS PETROL - SEE SYSTEMS VDG TEST REPORTS

NO DEVIATION FROM THE ABOVE SPECIFICATION(S) without PRIOR CONSULTATION AND AGREEMENT WITH LANDROVER FUEL SYSTEMS ENGINEERING.

FUEL TANK LIQUID CAPACITY 151 l+ (ACCORDING TO FIA-1047)

FUEL TANK ASSEMBLY COMPLETE WEIGHT 15.6kg ± 0.2kg

▽ TORQUE
ITEM No.1 TO BE TIGHTENED TO 20 ±5Nm.
LOOKING RING TORQUE TO TIE BOWDIXED without INTERFERENCE WITH THE TANK SURFACE.
TORQUE FIGURES FOR LOCKING RINGS TO BE MONITORED AND RECORDED ON AN AUDIT SYSTEM START AND END OF SHIFT.

IF ITEMS 16 OR 18 ARE DISTURBED IN SERVICE, NEW SEALS, ITEM 9 MUST BE USED.

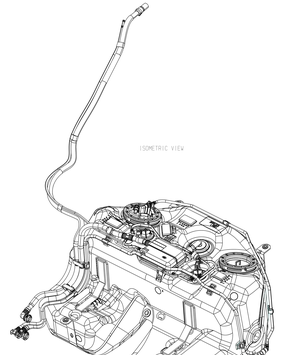
61 **IT IS THE RESPONSIBILITY OF THE COMPONENT/ASSEMBLY MANUFACTURER TO ENSURE THAT THE COMPONENT/ASSEMBLY MEETS THE REQUIREMENTS OF EXTANT PARTS MARKING -CCC. THE COMPONENT/ASSEMBLY MANUFACTURER MUST ENSURE THAT EVIDENCE IS AVAILABLE THAT COPIES OF APPROVAL CERTIFICATES FOR THE ASSEMBLY PLANT AND COMPONENT/ASSEMBLY ARE FORWARDED TO THE RELEVANT JLR REPRESENTATIVE UPON ISSUE FROM THE OVERSEE AUTHORITIES.**

ITEM No.	ESPEC PART No.	LAND ROVER PART No.	OPN EQUIVALENT PART No.	DESCRIPTION	No. OFF	No. OFF
1	8482-16021-JB	WF000120	-	ASSEMBLY FUEL TANK WELDED (AW1)	1	1
2	8482-16210-AB	4A360004	-	SEPARATOR ASSEMBLY FUEL LINES (AP2)	1	1
3	8482-16209-AA	MWP000200	-	PUMP ASSEMBLY - PURGE	1	1
4	8482-16260-FB	-	-	PUMP ASSEMBLY COMPLETE FUEL LINES	1	1
5	8482-02068-BB	WF400002S	6 780 667 5	STRAP-FUEL TANK PROTECTION	2	2
6	8482-02068-AA	WF400001S	6 780 666 5	STRAP-FUEL TANK PROTECTION	4	4
7	WXC-10303	33410009	6 780 568	W-NUT - FUEL TANK LOCKING	2	2
8	8482-16263-AA	WF000001S	6 780 703	STRAP ASSEMBLY - FUEL TANK LOCKING	2	2
9	8482-16263-AB	WF000002S	-	PIN - FUEL TANK PUMP UNIT	1	1
10	7482-16767-CB	WF000001S	-	STRP ATC - FUTM SUPT	1	1
11	7482-16767-DB	WF000002S	-	STRP ATC - FUTM SUPT	1	1
12	LR12-1665-AA	WF000002S	-	SPACER BUSH	1	1
13	8482-16264-AA	WF000001S	6 780 909	MOUNTING RUBBER	1	1
14	LR12-1665-BB	WF000001S	6 780 910	PLATE	1	1
15	WYC-10706-SS9	WF000001S	6 755 887	RIVET	6	2
16	8482-16263-AA	WF000001S	6 780 908 2	COVER - FUEL TANK FLANGE (USE)	1	1
17	8482-16307-AC	-	-	SCR + PMP ASY FUTM	1	1
18	8482-16309-AC	-	-	FLNG FUTM SCR + SLT TUB MTG	1	1
19	8482-16715-AB	-	-	SCR + SLT TUB ASY FUTM	1	1
20	8482-16512-AA	-	-	SCR+STUDBALL LEVEL SENSOR	1	1

ORIGINAL LANDROVER MOD COLUMN

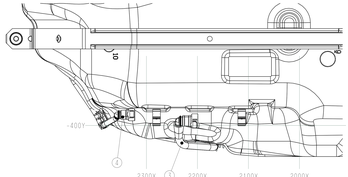
1	08/06	JLR
	RELEASE OF PART BASIC/BUILT (AE) INCLUDES ITEM 61 AND ITEM 62	

ISOMETRIC VIEW

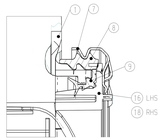


ORIGINAL LANDROVER MOD COLUMN

ISS	DATE	MOD NO DETAILS	BY/ CHK'D
A		RELEASE OF PART AH42-9K007-AE SEE SHEET 1 FOR DETAILS SEPT E 12217329 000	MSC/MTC SWANN

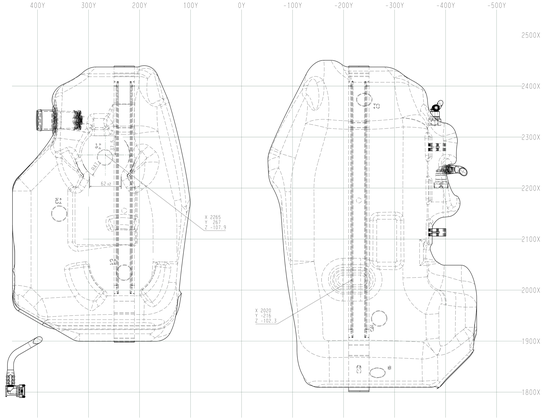


VIEW ON ARROW W
Scale: 1:2

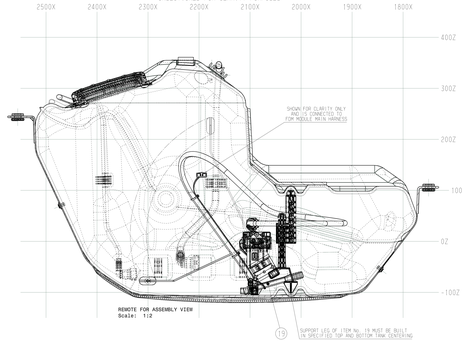


SECTION : A/A TYPICAL
Scale: 2:1

SECTION : T- T
Scale: 1:2
DELIVERY MODULE AND REMOTE SENDER
REMOVED FOR CLARITY

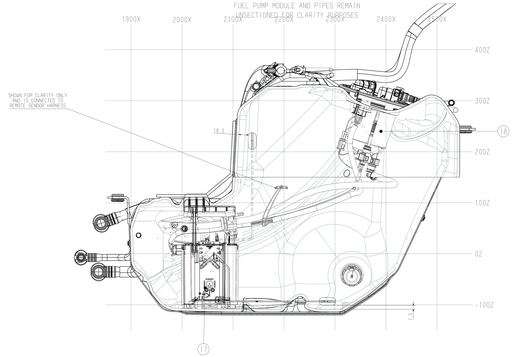


SECTION : D/D
REMOTE JET AND SENDER ASSEMBLY REMAIN
UNSECTIONED FOR CLARITY PURPOSES

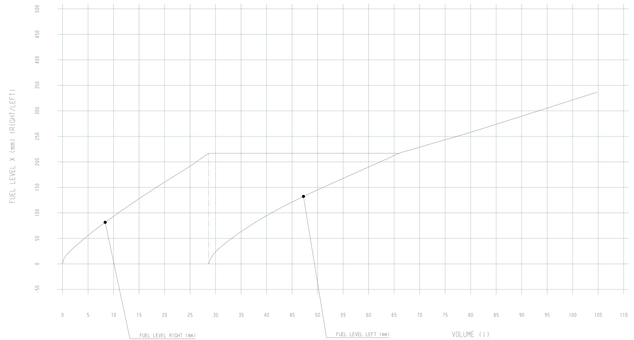


REMOTE FOR ASSEMBLY VIEW
Scale: 1:2

SECTION : B/B
FUEL PUMP MODULE AND PIPES REMAIN
UNSECTIONED FOR CLARITY PURPOSES



FUEL LEVEL CHARACTERISTIC LINE



This part is built strictly with Drawing Standard STD8 or the standard number shown in the section for non steel items. Drawing not Master.

No design, process or tooling changes without prior approval from the LR Engineering.

				DRAWING AH42-9K007-AE	ISS A SHT 2 OF 2
				CAD FILE AH42_9K007_A.CAM1.IGS	LAND ROVER
Create Parts Issue	mark no.	qty/car			PRINTED COPIES ARE UNCONTROLLED

NOTES:

* REFER TO SUPPLIER CRT DOCUMENT FOR FURTHER INFORMATION.

THIS ASSEMBLY MUST COMPLY WITH THE REQUIREMENTS OF ENGINEERING SPECIFICATION ES 3U5A-9002-BB, DATED 12 MAY 04 EXCEPT FOR THE SECTION 3.6 CONTAMINATION WHERE NOTE BELOW APPLIES.

LOCKING RING TO MEET THE REQUIREMENTS OF SAE J2587.

COMPONENT TO BE MARKED IN LINE WITH FORD MOTOR COMPANY ENGINEERING CAD & DRAFTING STANDARD E-3.
COMPONENT TO COMPLY WITH THE IDENTIFICATION OF FORD MOTOR COMPANY ENGINEERING CAD & DRAFTING STANDARD E-4 FOR POLYMERIC MATERIALS.

(D5) GROSS CAPACITY - 92 LITRES

(D3) EMPTY TO DESIGN CUT OFF -82 LITRES

(D4) USABLE CAPACITY - 80 LITRES

(D1) WEIGHT OF FUEL TANK ASSEMBLY - 18kg ± 0.5kg

TOTAL INTERNAL DEBRIS MUST NOT EXCEED 4.0mg WHEN TESTED TO
* LRLTM 30.IC101 OR SIMILAR APPROVED METHOD.
THE MAXIMUM PERMISSIBLE PARTICLE SIZE MUST NOT EXCEED 400 microns/0.6mg WHEN MEASURED IN ACCORDANCE WITH LRLTM 30.DD.103.

FOR CURRENT RELEASE STATUS SEE WERS ENGINEERING NOTICE.

THIS ASSEMBLY IS TO CONFORM TO THE GPDS REQUIREMENTS OF THE RELEVANT FORD AND JAGUAR / LAND ROVER SPECIFICATIONS CONTAINED IN THE DESIGN VERIFICATION PLAN LATEST ISSUE X351 10MY.

AS SUPPLIER TO JAGUAR / LAND ROVER COMPONENT MUST BE FREE INTERNALLY FROM THE FOLLOWING:-
- ALL MANUFACTURING AND PROCESS TEST FLUIDS.
- ALL IN PROCESS PRESSURE TEST FLUIDS.
- ALL MANUFACTURING DEBRIS, SWARF OR WELD SPATTER.
-WATER, DIRT OR DUST INGRESS.

FULL TRACEABILITY TO BE INDELIBLY MARKED / LABELLED ON THIS ASSEMBLY WITH REGARD TO YEAR, MONTH, DAY, TIME, ASSEMBLY LINE TEST DATA AND CRITICAL SECOND TIER SUPPLIER COMPONENTS ie FUEL DELIVERY MODULE AND SENDER(S).

BIRTH CERTIFICATION LABEL -
DATE OF CARCASS BLOW MOULD
TIME OF CARCASS BLOW MOULD
SEQUENTIAL CARCASS ID NUMBER
PRODUCT GENERIC IDENTIFICATION

THIS ASSEMBLY IS TO MEET THE LEGISLATIVE REQUIREMENTS OF ECE34, ECE34 ANNEX 5 AND EEC DIRECTIVE 70/221, CHINA FUEL TANKS.

▽ 100% LEAK TEST: PRESSURE DIFFERENTIAL TEST USING 100% HELIUM. LEAK RATE TO BE LESS THAN 1.4 x 10-5 mbar 1/s AT 140mb DIFFERENTIAL PRESSURE (D2)
AFTER LEAK TESTING NO PART TO BE REMOVED OR CHANGED WITHOUT RETESTING.

▽ 100% FUEL PUMP MODULE AND SENDER UNIT AND TANK VALVE FUNCTIONALITY TESTS TO BE CARRIED OUT IN LINE WITH PROCESS CONTROL DOCUMENTS AGREED WITH JAGUAR/LANDROVER PRODUCT ENGINEERING AND STA DEPARTMENTS.

▽ PUMP START TEST - MEDIUM AIR, VOLTAGE 6+/-0.1V.
MEASURING TIME 1<t<5 SECS.
CURRENT <4A. MAX 2 TESTS.

SENDER UNIT(S) ROLL OVER TEST TO CONFORM -
▽ SENDER FLOAT POSITION EMPTY RESISTANCE VALUE WITHIN TOLERANCE: 51.2±1 Ω
▽ SENDER FLOAT POSITION FULL RESISTANCE VALUE WITHIN TOLERANCE: 992±10.5 Ω
(C1) SENDER FLOAT POSITION BACK TO EMPTY RESISTANCE VALUE WITHIN TOLERANCE: 51.2±1 Ω

FOR ELECTRICAL CONNECTOR PIN OUT INFORMATION REFER TO DRAWING 9X23-9H307-A LATEST ISSUE.

FUEL TANK GASKET TO BE CLEAN AND FREE FROM ANY SURFACE IMPERFECTION THAT MAY BE DETRIMENTAL TO ITS SEALING INTEGRITY.

REFER TO FUEL TANK ASSY STOWAGE POSITION DOCUMENT FOR DELIVERED CONDITION TO CASTLE BROMWICH ASSY PLANT. (B1)

LEVII HYDROCARBON EMISSIONS REQUIREMENT FOR THIS ASSEMBLY TO BE <60mg/DAY WITH A TARGET OF 40mg/DAY

(C1) IT IS THE RESPONSIBILITY OF THE COMPONENT/ASSEMBLY MANUFACTURER TO ENSURE THAT THE COMPONENT/ASSEMBLY MEETS THE REQUIREMENTS OF CHINESE PARTS MARKING -CCC. IT IS ALSO THE RESPONSIBILITY OF THE COMPONENT/ASSEMBLY MANUFACTURER TO ENSURE THAT COPIES OF APPROVAL CERTIFICATES FOR THE ASSEMBLY PLANT AND COMPONENT/ASSEMBLY ARE FORWARDED TO THE RELEVANT JLR REPRESENTATIVE UPON ISSUE FROM THE CHINESE AUTHORITIES.

▽ 100% TANK VENT SYSTEM - VACUUM TEST
ROLL TANK OVER 180° FROM NORMAL VEHICLE FITTED POSITION.
APPLY A VACUUM OF AT LEAST - 150mb.
APPLY THE VACUUM AT THE BREATHER STUB CONNECTION.
EVACUATION TIME 5 SECS MINIMUM.
STABILISATION TIME 10 SECS MINIMUM.
LEAK CHECK FOR 20 SECS MINIMUM.
LEAK RATE TO BE <50ccm.
RELEASE VACUUM, ROLL BACK TO NORMAL VEHICLE FITTED POSITION.
ENSURE VALVE HAS RE-OPENED

ALL INTERNAL & EXTERNAL CONNECTIONS TO BE 100% VERIFIED.

▽ TORQUE FIGURES TO BE 100% MONITORED AND RECORDED ON AN AUDIT SYSTEM - ITEM 4 TIGHTEN CAM LOCK TO CLOSURE STOP. TORQUE TO ACHIEVE THIS 250Nm ±20Nm ANGULAR ROTATION START AND FINISH TO BE MONITORED DURING ASSEMBLY. ANGULAR ROTATION 17.3°.

▽ TORQUE FIGURE FOR ITEM 13 - 7Nm ± 1Nm

ALL FUEL LINES AND TANK OPENINGS AS DESIGNATED TO BE CAPPED DURING ASSEMBLY, TRANSPORT AND STORAGE. CAP(S) MUST PROTECT ANY SEALING SURFACE AND MUST REMAIN EFFECTIVE FOR PROLONGED STORAGE. CAP(S) MUST EASILY BE REMOVED WITHOUT THE USE OF TOOLS. IT MUST NOT BE POSSIBLE TO FIT ASSEMBLY TO MATING COMPONENTS WITH CAP(S) STILL IN PLACE.

DUST CAPS TO BE PRESENT ON ICV AND FUEL FEED LINES

NO LUBRICANT TO BE USED DURING THE MANUFACTURE OF PARTS OR
* ASSEMBLY OF PARTS UNLESS AUTHORISED BY JLR MATERIALS AND FUEL SYSTEM ENGINEERING DEPARTMENTS.

COMPONENT TO BE STOWED, PALLETISED, TRANSPORTED AND STORED SUCH THAT NO DISTORTION OF FORM, INTERNAL OR EXTERNAL DAMAGE OR DIRT INGRESS CAN OCCUR TO THE ASSEMBLY.

ASSEMBLY TO BE FREE FROM FLASH, BURRS, SHARP EDGES AND ANY OTHER IMPERFECTIONS THAT MAY CAUSE INJURY DURING HANDLING OR THAT WOULD BE DETRIMENTAL TO ITS ASSEMBLY OR PERFORMANCE.

CHANGES AFFECTING DESIGN, COMPOSITION OR PROCESSING TO THE ASSEMBLY OR SUB COMPONENTS PREVIOUSLY APPROVED FOR PRODUCTION REQUIRE PRIOR APPROVAL FROM JLR PRODUCT ENGINEERING. REFER TO QS9000.

ENGINEERING APPROVAL OF A MINIMUM OF SIX SAMPLES FROM EACH SUPPLIER IS REQUIRED PRIOR TO FIRST SHIPMENT OF PARTS FOR INITIAL RELEASE AND FOR SUBSEQUENT CHANGE REQUESTS.

UNLESS OTHERWISE SPECIFIED ALL LINES AND SURFACES, SAME SIDE OF MATERIAL AS DATUM.

ALL SEALING SURFACES TO BE CLEAN AND FREE FROM ANY SURFACE IMPERFECTIONS (INCLUDING) HOLES, SPOTS, DENTS, FLASH AND OFFSET MOULDING LINES.

AFTER ASSEMBLY ALL HOSES, PIPES TO BE FREE FROM KINKS.

DO NOT USE HOSES / PIPES ATTACHED TO THIS ASSEMBLY TO REMOVE FROM STILLAGE OR CARRY COMPONENT.

ALL PROTECTIVE CAPS TO BE REMOVED, AND LINES TO BE UNSTOWED PRIOR TO ASSEMBLY OF COMPONENT TO VEHICLE.

TEST CERTIFICATION LABEL / FINISHED GOODS LABEL -
- DATE OF FINAL ASSEMBLY
- TIME OF FINAL ASSEMBLY
- SEQUENTIAL ID NUMBER. (WHICH CORRELATES AGAINST CAQ DATA)
- PRODUCT DESCRIPTION & VARIENT INFORMATION
- PART NUMBER

SERVICE NOTE:
IF ITEM 11 FLNG FU/TNK SDR & OLET TUB MTNG (FLANGE) IS REMOVED OR DISTURBED IN SERVICE A NEW GSKT FU/TNK SDR ITEM 3 MUST BE USED. REFER TO SHEET 3 FOR CORRECT ORIENTATION REPLACEMENT OF ITEM 4
RG - FU/TNK.

▽ CONTROL ITEM - THE ▽ ALSO IDENTIFIES CRITICAL CHARACTERISTICS DESIGNATED BY THE CROSS FUNCTIONAL TEAMS DEVELOPING THE PRODUCT. THESE AND ADDITIONAL CRITICAL CHARACTERISTICS IDENTIFIED BY PROCESS REVIEWS MUST APPEAR ON THE CONTROL PLANS ACCORDING TO QS-9000. THESE CONTROL PLANS REQUIRE PRODUCT ENGINEERING APPROVAL.

LTRS	REVISIONS			
ORIGINATOR	CHECKER	ENGR APP	MATL APP	

RELEASE OF AW93-9K007-AA
UEP2 I 12108678 000 20080416

SCHECKLE	AWHITEMA	PGRAY18	MATS ENG

RELEASE OF AW93-9K007-AB
B1 SENDER FULL RESITANCE VALUE ADDED
B2 ITEMS 1,2,5,6,7,8,9,10,11 AND 12 IN BOM LIST UPDATED
ITEM 12 WAS 1 OFF
B3 ITEMS H,J AND K ADDED
UEP2 E 12151744 001 20080804

SCHECKLE	AWHITEMA	PGRAY18	MATS ENG

RELEASE OF AW93-9K007-AC

C1 EMISSION REQUIREMENT & CCC NOTES ADDED

C2 CONTROL ITEM ADDED TO SENDER UNITS ROLL TEST IN NOTES

C3 ITEMS 1,4,5,6,7,8,10 & 13 BOM UPDATED

C4 FDM ROTATIONAL POSITION UPDATED SHEET 3

C5 PIPE CLIP (ITEM 9) MOVED CLOSER TO FDM

UEP2 E 12201456 000 20090218

SCHECKLE	AWHITEMA	PGRAY18	MATS ENG

RELEASE OF AW93-9K007-AC vers. 4
C6 TEST CERTIFICATION / FINISHED GOODS LABEL POSITION ADDED
C7 BIRTH CERTIFICATION LABEL POSITION ADDED
UEP2 E 12246760 000 20090624

SCHECKLE	AWHITEMA	PGRAY18	MATS ENG

RELEASE OF AW93-9K007-AD
D1 WEIGHT WAS 19kg
D2 WAS 70mb
D3 WAS 87L
D4 WAS 85L
D5 WAS 97L
D6 ITEM 1 WAS AW93-9002-AC
D7 ITEM 14 & 15 ADDED TO BOM
D8 STOWAGE NOTE ADDED
UEP2 E 12267741 000 20090825

SCHECKLE	AWHITEMA	PGRAY18	MATS ENG

RELEASE OF AW93-9K007-AE
E1 ITEM 6 WAS AW93-9A186-AC
UEP2 E 12274603 000 20091104

NMANDER	AWHITEMA	PGRAY18	MATS ENG

RELEASE OF AW93-9K007-AF
F1 ITEM 1 WAS AW93-9002-AD
UEP2 E 50013597 000 20110411

BKUMAR	CMITCH11	PGRAY18	MATS ENG

RELEASE OF AW93-9K007-AG
G1 ITEM 1 WAS AW93-9002-AE
G2 ITEM 2 WAS 9X23-9H307-AD
G3 ITEM 11 WAS 9X23-9A309-AC
UEP2 E 50021794 000 20111020

VKAMATH	PREDHEAD	PWADSWOR	MATS ENG

REFERENCE	DS-X351-100100-C810-02 & 05		
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT			
DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION 23.		3RD ANGLE PROJ DIMENSIONS ARE IN MILLIMETERS	
CAD TYPE K-CATIA5	CAD LOC. TCE	CAD FILE FDRAW939K007A20 ;8	DTMC IS MASTER
OPER. NO. AWATSO38	UNIT N/A	DRAWING AW93-9K007-AG	
DESIGN GBIELBY	DETAIL AWATSO38	TITLE TNK & SDR ASY FUL	SHT 1 OF 3
CHECKED AWHITEMA	SAFETY N/A		
SCALE 1:1	DATE 20080214	DIVISION JAGUAR	
		PLANT GAYDON	

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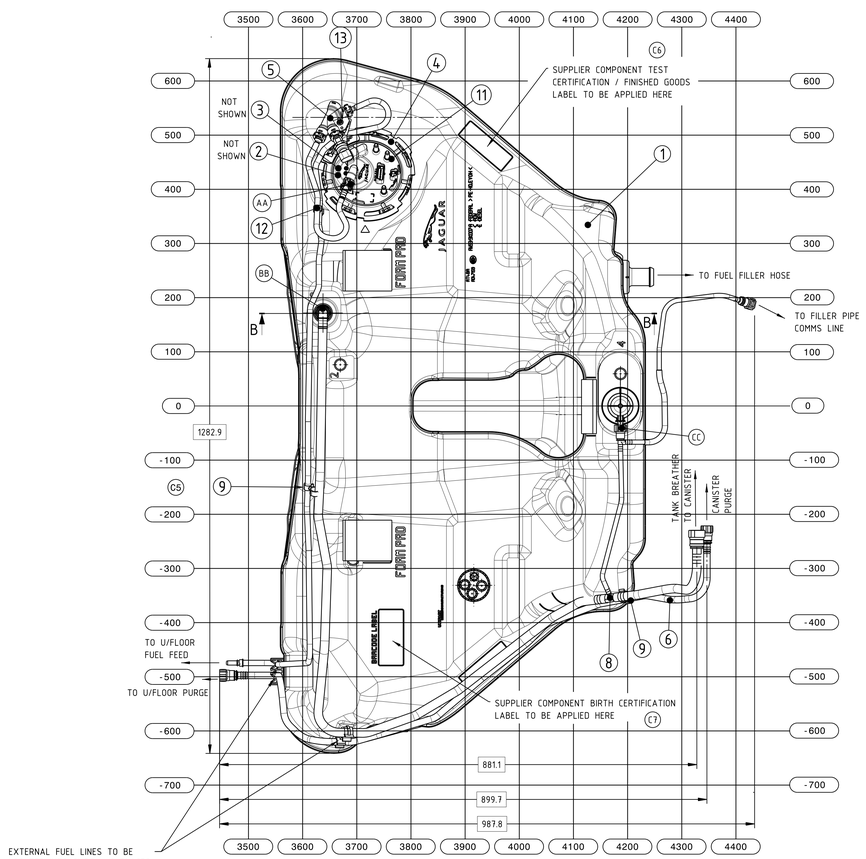
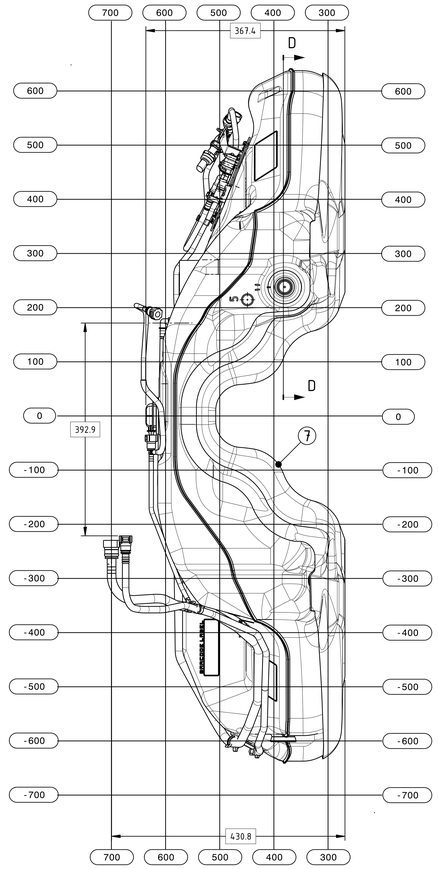




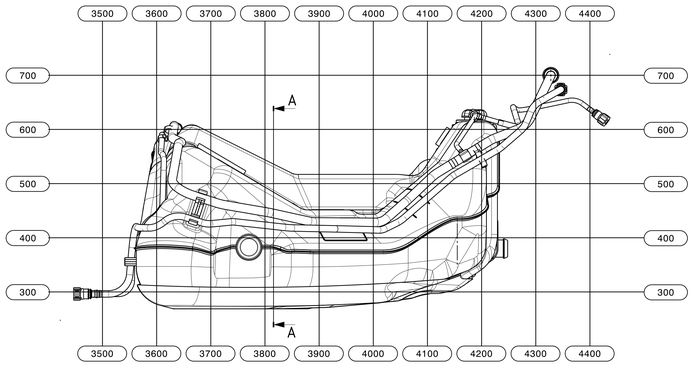
ITEM	PART NUMBER	DESCRIPTION	QUANTITY
G1 F1 D6 G2	1	AW93-9002-AF	TNK ASY FUL	1
	2	9X23-9H307-AE	SDR & PMP ASY-FU/TNK	1
	3	6H52-9276-AA	GSKT-FU/TNK SDR	1
	4	AW93-9C385-AB	RG-FU/PMP RET LK	1
E1	5	AW93-9324-AC	TUB ASY-FU/TNK TO FUL TUB FEED INC SENSOR	1
	6	AW93-9A186-AC	PIP-FU/TNK VEN RR LH	1
	7	AW93-9A032-AC	SHLD FU/TNK HT	1
	8	AW93-9C047-AC	TUB ASY - FU/VPR CONTR VLV BREATHER	1
	9	W707828	CLIP ASY - 80.901.691	2
	10	AW93-9275-AC	SDR & OLET TUB ASY FU/TNK	1
G3	11	9X23-9A309-AE	FLNG FU/TNK SDR & OLET TUB MTG	1
	12	W712543	CLIP - 012738.000	1
	13	W520411-S439	M5 FLANGE NUT (90509 RICOR)	1
D7	14		DUST CAP (CV)	1
	15		DUST CAP (FEED LINE)	1

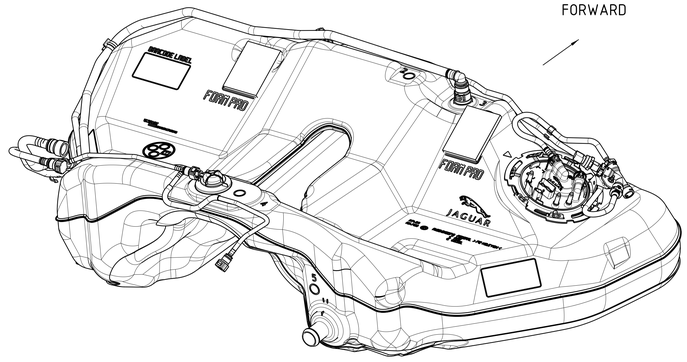
E3 B2

TANK EXTERNAL CONNECTIONS TO BE MADE AT TANK SUPPLIER

ITEM	CONNECTION DESCRIPTION
* AA	TNK ASY - FUL/TNK TO FUL TUB FEED INC SENSOR TO FLNG FU/TNK
* BB	TUB ASY - FU/VPR CONTR VLV BREATHER TO CONN FU/VPR TUB MLE
* CC	TUB ASY - FU/TNK CONTR VLV BREATHER TO FLT FUL DRN TNK ROV

NOTE - PIPES SHOWN IN VEHICLE FITTED POSITION.
BREATHER, PURGE LINE & COMMS TUBE TO BE STOWED & TAPED TO TANK PRIOR TO DELIVERY.
D8





DIMENSION		TOLERANCE
OVER	UPTO	+/-
0	127	2
127.1	254	3
254.1	508	4
508.1	OVER	5

LTRS	REVISIONS			
ORIGINATOR	CHECKER	ENGR APP	MATL APP	
RELEASE OF AW93-9K007-AA				
UEP2 I 12108678 000		20080416		
NMANDER	AWHITEMA	PGRAY18	MATS ENG	
RELEASE OF AW93-9K007-AB B1 SENDER FULL RESITANCE VALUE ADDED B2 ITEMS 1,2,5,6,7,8,9,10,11 AND 12 IN BOM LIST UPDATED ITEM 12 WAS 1 OFF B3 ITEMS H,J AND K ADDED				
UEP2 E 12151744 001		20080804		
SCHECKLE	AWHITEMA	PGRAY18	MATS ENG	
RELEASE OF AW93-9K007-AC C1 EMISSION REQUIREMENT & CCC NOTES ADDED C2 CONTROL ITEM ADDED TO SENDER UNITS ROLL TEST IN NOTES C3 ITEMS 1,4,5,6,7,8,10 & 13 BOM UPDATED C4 FDM ROTATIONAL POSITION UPDATED SHEET 3 C5 PIPE CLIP (ITEM 9) MOVED CLOSER TO FDM				
UEP2 E 12201456 000		20090218		
SCHECKLE	AWHITEMA	PGRAY18	MATS ENG	
RELEASE OF AW93-9K007-AC vers. 4 C6 TEST CERTIFICATION / FINISHED GOODS LABEL POSITION ADDED C7 BIRTH CERTIFICATION LABEL POSITION ADDED				
UEP2 E 12246760 000		20090624		
SCHECKLE	AWHITEMA	PGRAY18	MATS ENG	
RELEASE OF AW93-9K007-AD D1 WEIGHT WAS 19kg D2 WAS 70mb D3 WAS 87L D4 WAS 85L D5 WAS 97L D6 ITEM 1 WAS AW93-9002-AC D7 ITEM 14 & 15 ADDED TO BOM D8 STOWAGE NOTE ADDED				
UEP2 E 12267741 000		20090825		
SCHECKLE	AWHITEMA	PGRAY18	MATS ENG	
RELEASE OF AW93-9K007-AE E1 ITEM 6 WAS AW93-9A186-AC				
UEP2 E 12274603 000		20091104		
NMANDER	AWHITEMA	PGRAY18	MATS ENG	
RELEASE OF AW93-9K007-AF F1 ITEM 1 WAS AW93-9002-AD				
UEP2 E 50013597 000		20110411		
BKUMAR	CMITCH11	PGRAY18	MATS ENG	
RELEASE OF AW93-9K007-AG G1 ITEM 1 WAS AW93-9002-AE G2 ITEM 2 WAS 9X23-9H307-AD G3 ITEM 11 WAS 9X23-9A309-AC				
UEP2 E 50021794 000		20111020		
VKAMATH	PREDHEAD	PWADSWOR	MATS ENG	

REFERENCE	DS-X351-100100-C810-02 & 05		
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT			
DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION 23.	3RD ANGLE PROJ DIMENSIONS ARE IN MILLIMETERS		
CAD TYPE	CAD LOC.	CAD FILE	DTMC
K-CATIAS	TCE	FDRAW939K007A20 .8	IS MASTER
OPER. NO.	UNIT	DRAWING	
AWATSO38	N/A	AW93-9K007-AG	
DESIGN	DETAIL	TITLE	SHT 2
GBIELBY	AWATSO38	TNK & SDR ASY FUL	OF 3
CHECKED	SAFETY		
AWHITEMA	N/A		
SCALE	DATE	DIVISION JAGUAR	
1:4	20080214	PLANT GAYDON	

JAGUAR CARS LIMITED LAND ROVER

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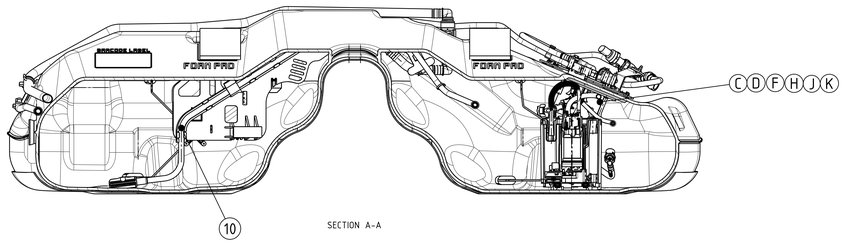
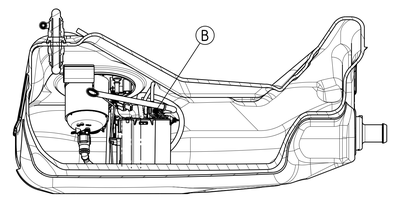
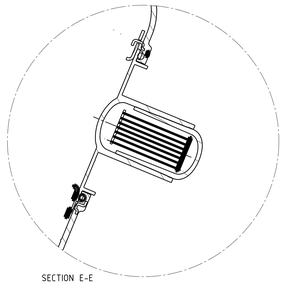


SECTION A-A

WHEN FITTED ENSURE SDR & OLET TUB ASY FU/TNK (ITEM 10) HAS PASSED AND IS HELD BY RETENTION LATCH FEATURE ON INTERNAL BRACKET

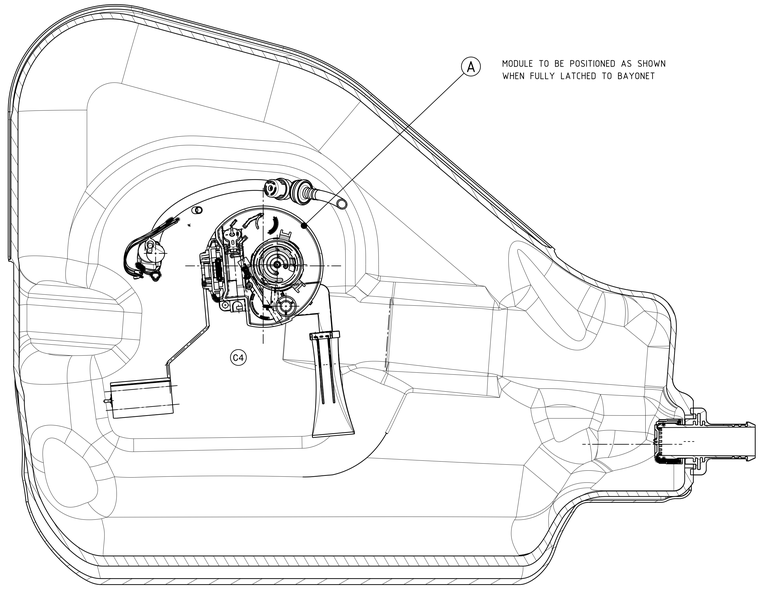


SECTION B-B

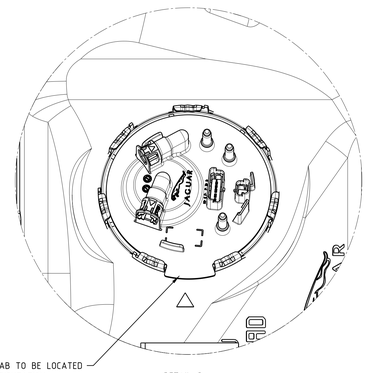


SECTION E-E
SCALE: 1:2

SECTION THROUGH FLANGE, TANK, SEAL, ENCAPSULATED RING AND LOCKING RING.



SECTION D-D
SCALE 1:2



DETAIL C
SCALE: 1:2

ITEMS 4 & 5 ARE OMITTED FOR CLARITY

B3

TANK INTERNAL CONNECTIONS

	ITEM No	CONNECTION DESCRIPTION
*	A	SDR & PMP ASY PETROL TO BAYONET (FDM TO BAYONET)
*	B	SDR & OLET TUB ASY FU/TNK TO SDR & PMP ASY FU/TNK (SUCKING JET TO FDM)
▽	C	SDR & PMP ASY FEED TO FLNG FU/TNK SDR & OLET TUB MTG (FEED TO FLANGE)
*	D	SDR & PMP ASY ELECTRICAL CONNECTOR TO FLNG FU/TNK SDR & OLET TUB MTG (ELECTRICAL CONNECTOR TO FLANGE)
*	F	SDR & PMP ASY DRAIN TUBE TO SDR & PMP ASSY FLANGE (PASSIVE DRAIN TO FLANGE)
*	H	SDR + PUMP ASY EARTH ELECTRICAL CONNECTOR TO PUMP ASSY FLANGE (PUMP TO FLANGE)
*	J	ELECTRICAL FLYLEAD TO BRKT (PASSIVE MAPPS)
*	K	ELECTRICAL FLYLEAD TO FDM (PASSIVE MAPPS)

LTRS	REVISIONS			
ORIGINATOR	CHECKER	ENGR APP	MATL APP	
RELEASE OF AW93-9K007-AA				
UEP2 I 12108678 000			20080416	
NMANDER	AWHITEMA	PGRAY18	MATS ENG	
RELEASE OF AW93-9K007-AB B1 SENDER FULL RESITANCE VALUE ADDED B2 ITEMS 1,2,5,6,7,8,9,10,11 AND 12 IN BOM LIST UPDATED ITEM 12 WAS 1 OFF B3 ITEMS H,J AND K ADDED				
UEP2 E 12151744 001			20080804	
SCHECKLE	AWHITEMA	PGRAY18	MATS ENG	
RELEASE OF AW93-9K007-AC C1 EMISSION REQUIREMENT & CCC NOTES ADDED C2 CONTROL ITEM ADDED TO SENDER UNITS ROLL TEST IN NOTES C3 ITEMS 1,4,5,6,7,8,10 & 13 BOM UPDATED C4 FDM ROTATIONAL POSITION UPDATED SHEET 3 C5 PIPE CLIP (ITEM 9) MOVED CLOSER TO FDM				
UEP2 E 12201456 000			20090218	
SCHECKLE	AWHITEMA	PGRAY18	MATS ENG	
RELEASE OF AW93-9K007-AC vers. 4 C6 TEST CERTIFICATION / FINISHED GOODS LABEL POSITION ADDED C7 BIRTH CERTIFICATION LABEL POSITION ADDED				
UEP2 E 12246760 000			20090624	
SCHECKLE	AWHITEMA	PGRAY18	MATS ENG	
RELEASE OF AW93-9K007-AD D1 WEIGHT WAS 19kg D2 WAS 70mb D3 WAS 87L D4 WAS 85L D5 WAS 97L D6 ITEM 1 WAS AW93-9002-AC D7 ITEM 14 & 15 ADDED TO BOM D8 STOWAGE NOTE ADDED				
UEP2 E 12267741 000			20090825	
SCHECKLE	AWHITEMA	PGRAY18	MATS ENG	
RELEASE OF AW93-9K007-AE E1 ITEM 6 WAS AW93-9A186-AC				
UEP2 E 12274603 000			20091104	
NMANDER	AWHITEMA	PGRAY18	MATS ENG	
RELEASE OF AW93-9K007-AF F1 ITEM 1 WAS AW93-9002-AD				
UEP2 E 50013597 000			20110411	
BKUMAR	CMITCH11	PGRAY18	MATS ENG	
RELEASE OF AW93-9K007-AG G1 ITEM 1 WAS AW93-9002-AE G2 ITEM 2 WAS 9X23-9H307-AD G3 ITEM 11 WAS 9X23-9A309-AC				
UEP2 E 50021794 000			20111020	
VKAMATH	PREDHEAD	PWADSWOR	MATS ENG	

REFERENCE	DS-X351-100100-C810-02 & 05		
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT			
DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION 23.		3RD ANGLE PROJ DIMENSIONS ARE IN MILLIMETERS	
CAD TYPE	CAD LOC.	CAD FILE	DTMC
K-CATIA5	TCE	FDRAW939K007A20 .8	IS MASTER
OPER. NO.	UNIT	DRAWING	
AWATSO38	N/A	AW93-9K007-AG	
DESIGN	DETAIL	TITLE	SHT 3
GBIELBY	AWATSO38	TNK & SDR ASY FUL	OF 3
CHECKED	SAFETY		
AWHITEMA	N/A		
SCALE	DATE	DIVISION JAGUAR	
1:1	20080214	PLANT GAYDON	

JAGUAR CARS LIMITED LAND ROVER

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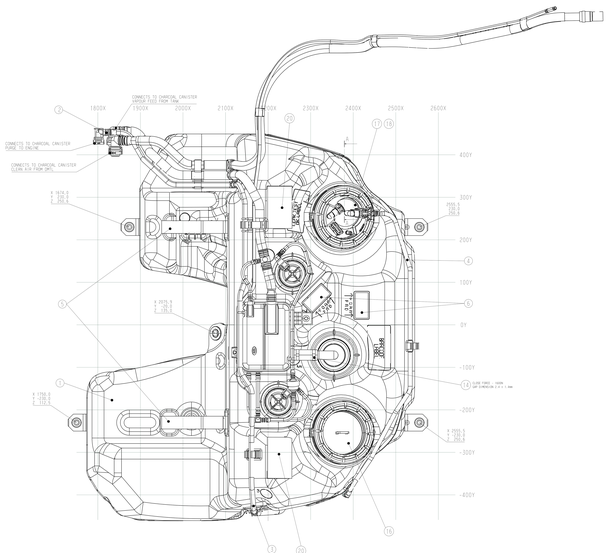
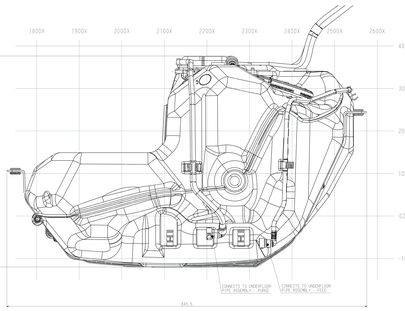
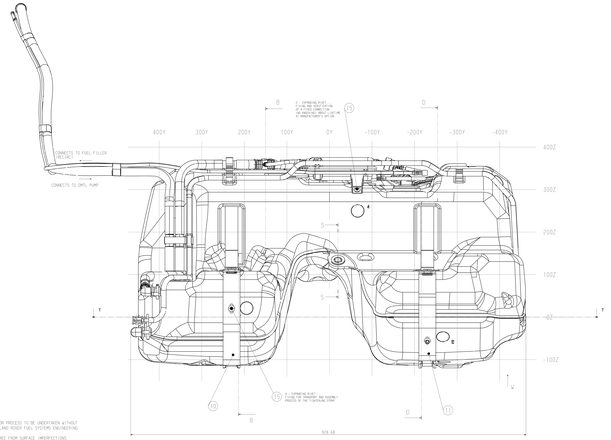
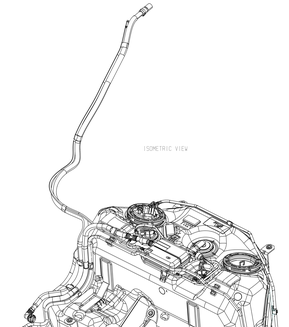








NO LUBRICANT TO BE USED DURING MANUFACTURE OF PART(S). TO ASSEMBLE COMPONENT PART(S) OR TO ASSEMBLE COMPONENT(S) TO VEHICLE UNLESS SPECIFICALLY APPROVED BY LAND ROVER MATERIALS AND FUEL SYSTEM ENGINEERING DEPARTMENTS.

COMPONENT MUST BE FREE INTERNALLY FROM THE FOLLOWING:
- MAY AND ALL MANUFACTURING PROCESSING FLUIDS
- ANY PRESSURE TEST FLUIDS
- MANUFACTURING DEBRIS OR SWARF
- WATER, DIRT OR DUST INGRESS

TOTAL INTERNAL DEBRIS MUST NOT EXCEED 50.0 mg WHEN TESTED TO LMLTM 30.10101 OR SIMILAR APPROVED METHOD.

THE LARGEST SINGLE PIECE OF DEBRIS SIZE MUST NOT EXCEED 400 m/cm²/cm/0.5mg WHEN MEASURED IN ACCORDANCE WITH LMLTM 30.00.133.

ASSEMBLIES TO BE PRESTEPPED / STILLAGED SUCH THAT NO INTERNAL OR EXTERNAL DAMAGE, OR CONTAMINATION, (INCLUDING WATER INGRESS), CAN OCCUR DURING TRANSIT AND STORAGE.

ALL ORIFICES, VENT LINES, HOSES, ELECTRICAL CONNECTORS ETC. TO BE SEALED FOR TRANSPORT AND STORAGE PURPOSES WITH SUITABLE PLUGS, CAPS OR TAPE. THE MOST EFFECTIVE SEALING PROVIDED PERIODS OF STORAGE/PALLETISATION, MUST PROTECT ANY SEALING SURFACES AND BE EASILY REMOVABLE WITHOUT TOOLS.

IT MUST NOT BE POSSIBLE TO FIT ASSEMBLY MATING COMPONENTS WITH CAPS / PLUGS STILL IN PLACE

ASSEMBLY TO BE TRANSPORTED, STORED AND PALLETISED SUCH THAT IT REMAINS FLAT IN THE NORMAL VEHICLE INSTALLATION ORIENTATION SUCH THAT NO DAMAGE CAN OCCUR TO THE INTERNAL PARTS OF THE ASSEMBLY.

DO NOT USE HOSES / PIPES ATTACHED TO THIS ASSEMBLY TO REMOVE FROM STILLAGE OR CARRY COMPONENT.

FULL TRACE ABILITY TO BE OPERATED ON THIS COMPONENT / ASSEMBLY WITH REGARD TO: - DATE OF MANUFACTURE, ASSEMBLY LINE TEST DATA, (BOTTOM, SECOND TOP) COMPONENTS / PUMP.

LABEL TO ENSURE FULL TRACE ABILITY OF ASSEMBLY AND COMPONENT PARTS TO BE FITTED SUCH THAT IT CAN BE SEEN AFTHOUT COMPONENT REMOVAL FROM VEHICLE.

ALL PARTS MUST BE FREE FROM FLUX, BURRS, SHARP EDGES AND ANY OTHER CONTAMINATION WHICH COULD BE DETRIMENTAL TO ITS HANDLING OR PERFORMANCE OR MAY CAUSE INJURY DURING HANDLING.

NO CHANGE TO SUB-COMPONENTS, ASSEMBLY OR PROCESS TO BE UNDERTAKEN WITHOUT PRIOR CONSULTATION AND AGREEMENT WITH LAND ROVER FUEL SYSTEMS ENGINEERING

ALL SEALING SURFACES TO BE CLEAN AND FREE FROM SURFACE UNDERCUTTINGS INCLUDING HOLES, SPOTS, DENTS, FLASH AND OFFSET MOULDING LINES

THE FOLLOWING FUEL LINE CLEANLINESS SPECIFICATION IS THE TOTAL CONTRIBUTION EQUIV FROM DEBRIS FOR THIS ASSEMBLY

30-100µ	QUANTITY =108
100-150µ	QUANTITY =24
150-400µ	QUANTITY =8
>400µ	QUANTITY =0

REMOVE ALL DUST CAPS PRIOR TO ASSEMBLY OF COMPONENTS TO VEHICLE

HOSE ASSEMBLY - ENSURE ALL HOSES ARE FULLY ASSEMBLED UP TO SECOND PIPE BEAD OR ABUTMENT FACE AND ALIGNED WITH TAPING MARKS WHERE APPROPRIATE. ALL LOCATING FEATURES AND / OR CLIPS TO BE SECURE AND CORRECTLY POSITIONED IN LINE WITH DRAWING.

▽ 1500 LEAK TEST
LEAK TEST TO ES/WSM-5000-AC

1500 FUEL SUPPLY AND GAUGE UNIT FUNCTIONALITY TEST TO BE CARRIED OUT IN LINE WITH PROCESS CONTROL DOCUMENTS AGREED WITH LAND ROVER FUEL SYSTEMS ENGINEERING
TEST TO INCLUDE AS A MINIMUM:
PUMP - PUMP START / AMP DRAW / PRESSURE CHECK
TEST VOLTAGE = 9V - CURRENT DRAW = 8.1 - 5A - TIME = 0.3s - MAX 3 TESTS PER PUMP
GAUGE - CALIBRATION CHECK AT EMPTY = 34.2 ± 0.5 Ω AND FULL = 240.2 ± 10.5Ω

CLAMPING FOR CLOSED RS SHOWN
POSITION OF EAR AFTER ASSEMBLY = 15 TO BE CLEAR OF TANK/NETS ETC.
ASSEMBLY OF EAR CLAMP ONLY WITH CLAMP MANUFACTURERS RECOMMENDED TOOL WITH EAR HELD DOWN DEVICE

6.0MM I.DIC NOTE

PLASTIC MATERIAL IDENTIFICATION MARKING TO COMPLY WITH FORD STANDARD ES

COMPONENT TO CARRY LAND ROVER PARTS BRANDING AND CODING IN LINE WITH LAND ROVER STANDARD LRTSPM-001 AND ES18 FORD BRANDING DIRECTIVE. APPLICATION IS NOT TO AFFECT COMPONENT FIT OR FUNCTION.

THIS COMPONENT TO COMPLY WITH FORD ENGINEERING SPECIFICATION ES-3L5A-9002-BB (HYDROTHYL) SECTIONS 3.5, 3.6, 3.7 & 3.21.1 (T)
SECTION 3.4 PIN WELL THICKNESS 3mm
SECTION 3.4 DROP TEST AT 1.5M USE LOG JOB11

▽ THIS COMPONENT IS TO COMPLY WITH THE SPECIFICATION DETAILED IN THE DESIGN VERIFICATION PLAN.

OVP GENERAL VEHICLE MATERIAL – LVR SYSTEMS DEGRY MTD-100

OVP COMPONENT – FUEL TANKS – SEE KSL TEST REPORTS

OVP COMPONENT FOR MMFS METHOD – SEE SUMMERS VDU TEST REPORTS

NO DEVIATION FROM THE ABOVE SPECIFICATION(S) WITHOUT PRIOR CONSULTATION AND AGREEMENT WITH LANDROVER FUEL SYSTEMS ENGINEERING

FUEL TANK LIQUID CAPACITY 101.1 L (ACCORDING TO FN-15611

FUEL TANK ASSEMBLY COMPLETE WEIGHT-TO 84g ± 0.0kg

▽ TORQUE
ITEM No.7 TO BE TIGHTENED TO 25-40Nm.
LOCKNUT/NL TORQUE TO TO BE ACHIEVED WITHOUT INTERFERANCE WITH THE FILLER NECK.
TORQUE IT USERS FOR FAILURE MODE TO BE MONITORED AND RECORDED ON AN AUDIT SYSTEM START AND END OF SHIFT.

IT ITEMS 19 OR 18 ARE DISTURBED IN SERVICE, NEW SEALS, ITEM 9 MUST BE USED.

B2 **IT IS THE RESPONSIBILITY OF THE COMPONENT/ASSEMBLY MANUFACTURER TO ENSURE THAT THE COMPONENT/ASSEMBLY MEETS THE REQUIREMENTS OF DATABASE PARTS MARKING -CCOC. IT IS ALSO THE RESPONSIBILITY OF THE COMPONENT/ASSEMBLY MANUFACTURER TO ENSURE THAT COPIES OF APPROVAL CERTIFICATES FOR THE ASSEMBLY PLANT AND COMPONENT/ASSEMBLY ARE FORWARDED TO THE RELEVANT JLR REPRESENTATIVE UPON ISSUE FROM THE CHINESE AUTHORITIES.**

ITEM No.	STORES PART No.	LAND ROVER PART No.	OPN EQUIVALENT PART No.	DESCRIPTION	No. OFF	No. OFF	
	1	WHG-500321 AC	-	-	ASSEMBLY FUEL TANK WELDED (4WD)	1	-	B2
	2	WHG-502763 GR	AJA500042	-	SEPARATOR ASSEMBLY FUEL LINES VAPOUR MFD	1	1	
G1	3	WHG-L2228 AB	-	-	PUMP ASSEMBLY - PURGE	1	-	
G1	4	WHG-L2300 JB	-	-	CAP ASY FUEL VENT	1	-	
	5	WHG-500981 BM	WFX500023	6 765 667 X	STRIP-PUR TANK PROTECTION	1	-	
	6	WHG-500981 BM	WFX500023	6 765 667 X	STRIP-PUR TANK PROTECTION	-	1	G1
	7	WHG-503484 AA	EWC000017	-	NUT - FUEL TANK STRAP	2	2	
	8	WHG-5416 AA	EWC000017	16E 903	STUD ASSY-FUEL TANK LOCATING	2	2	
	9	WHG-503484 AA	EWC000017	-	SEAL - FUEL TANK PUMP UNIT	1	-	
	10	THG-5052 GB	WFX500013	-	STRP ASY - FUTW SUPT	1	-	
	11	THG-5052 GB	WFX500029	-	STRP ASY - FUTW SUPT	1	-	
	12	LHG-1565 AA	WFX500029	-	SPACER BUSH	1	1	
	13	WHG-500981 AA	WFX500029	6 765 669	STRAP-FUEL	1	1	
	14	LHG-1565 AA	WFX500029	6 765 670	PLATE	1	1	
	15	LHG-5056 GBR	WFX500023	6 765 667	STRIP	6	2	
G4	16	WHG-981134 AB	WFX500029	6 765 668 X	COVER - FUEL TANK FLANGE (LHD)	1	-	
	17	WHG-94301 AC	-	-	SCR + PW ASY FUTW	1	-	
	18	WHG-94300 AC	-	-	FLNG FUTW SCR + SLIT SUB MFG	1	-	
	19	WHG-5275 AC	-	-	SCR + SLIT SUB MFD FUTW	1	-	
	20	WHG-94510 AA	-	-	NON-CORRELATED SEAL SEALER	1	-	
	21	WHG-500668 AA	-	-	FUNC FAC	1	1	G2

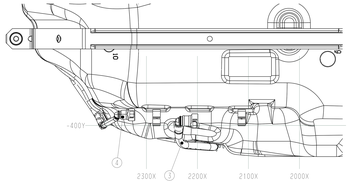
REFERENCE	02-L322/500707-P218_20-???		
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD			
ALL DIMENSIONS ARE NOMINAL UNLESS OTHERWISE STATED			
DRAWING IN ACCORDANCE WITH	ISO	1ST ANGLE PROJ	
ALL DIMENSIONS ARE IN MILLIMETRES			
CURRENT AT ISSUING DELEASE		IN MILLIMETRES	
A3 TYPE/SIZE (JIC)	SHEET SIZE		
SCALE	1:4		
SECTION	SECTION	DRAWING	
CHECKED	DATE		
ENGINEER	DATE		
STATUS	ISSUE		

1	2018/10/29	CHANGE	ADD APP
RELEASE TO WHG-500707-AA RS-11PR-L WAS WHG-L1209-JA			
DEPZ E 2018/10/29 2018		2018/10/29	
2	2019/01/14	CHANGE	ADD APP
RELEASE TO WHG-500707-AB RS-11PR-L WAS WHG-L1209-JA			
DEPZ E 2019/01/14 2019		2019/01/14	
3	2019/04/04	CHANGE	ADD APP
RELEASE TO WHG-500707-AB REV B RS-NOTE 240018 FOR CHINA MARKET			
DEPZ E 2019/04/04 2019		2019/04/04	
4	2019/08/01	CHANGE	ADD APP
RELEASE TO WHG-500707-AC C1 PART-M WAS WHG-L2228-AA			
DEPZ E 2019/08/01 2019		2019/08/01	
5	2019/09/30	CHANGE	ADD APP
RELEASE TO WHG-500707-AD RS-11PR-L WAS WHG-L1209-JA C1 - 11PR-T WAS WHG-L1900-JB 11PR-T WAS WHG-L1900-JB 10 PART NO DELETED			
DEPZ E 2019/09/30 2019		2019/09/30	
6	2020/04/29	CHANGE	ADD APP
RELEASE TO WHG-500707-AE ESL PARTS UP-SUPPYARD			
DEPZ E 2020/04/29 2020		2020/04/29	

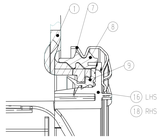
REVISED	REVISED	PARTNUM	MATERIAL
PROGRESS	PROJECT	PACKING	MATERIAL
PROGRESS	PROJECT	PACKING	MATERIAL
PROGRESS	PROJECT	PACKING	MATERIAL
PROGRESS	PROJECT	PACKING	MATERIAL

DRAWING NUMBER	02-L322/500707-AF
SHEET	1
TITLE	TNK & SDR ASY FUL
SIZE	A1

JAGUAR CARS LIMITED AND ROVER

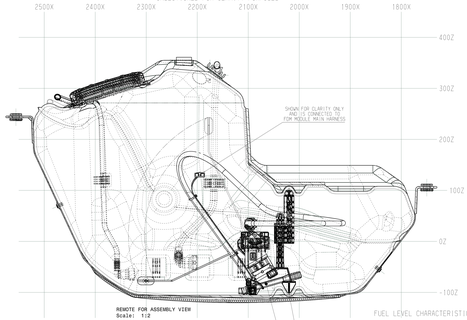


VIEW ON ARROW W
Scale: 1:2

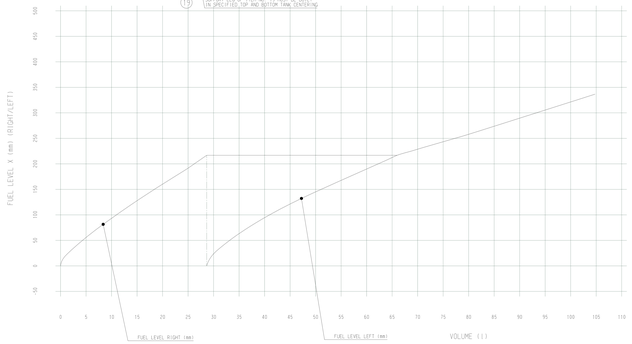


SECTION : A/A TYPICAL
Scale: 2:1

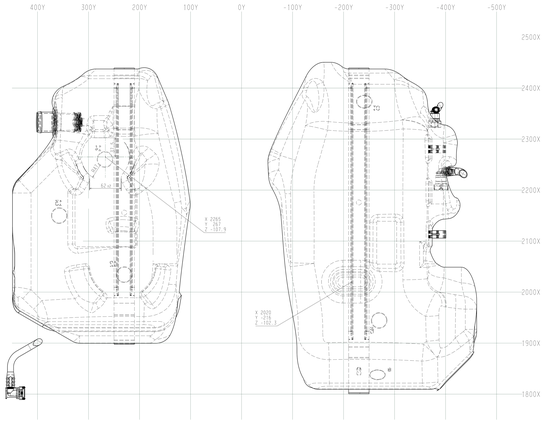
SECTION : D/D
REMOTE JET AND SENDER ASSEMBLY REMAIN
UNSECTIONED FOR CLARITY PURPOSES



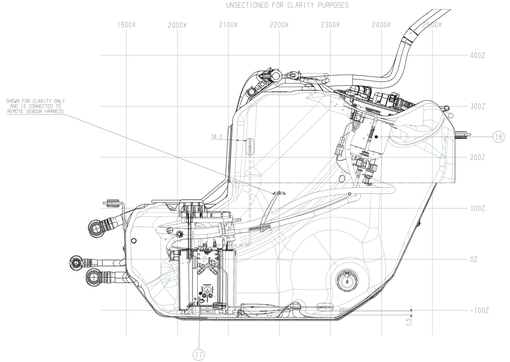
FUEL LEVEL CHARACTERISTIC LINE



SECTION T- T
Scale: 1:2
DELIVERY MODULE AND REMOTE SENDER
REMOVED FOR CLARITY



SECTION : B/B
FUEL PUMP MODULE AND PIPES REMAIN
UNSECTIONED FOR CLARITY PURPOSES



This part is built strictly to BS 8888 and the Engineering Drawing Practice Guide of the Rover Group Ltd. Any departure from this practice must be specifically agreed with the Chief Engineer of the Rover Group Ltd.

No design, process or tooling changes without prior approval from the Engineering Director.

				DRAWING	BH42-9K007-AF
				TAB FILE	BH42_9K007_4.DWG
ISSUE	DATE	BY	CHK		
Create Family Master					

ROVER GROUP LIMITED

REV	SHT	OF
	2	2

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NOTES:

ITEMS MARKED WITH * REFER TO L538 SC-CC AGREEMENT SHEET

THIS ASSEMBLY MUST COMPLY WITH ENGINEERING SPECIFICATION
▽ ES 7U5A-9K007-AA, EXCEPT FOR THE SECTION 3.6 CONTAMINATION
WHERE NOTE BELOW APPLIES AND SECTION 3.3.2 REFER TO TANK WELDED AND BLOWN SHELL DRAWINGS
LATEST ISSUE

* TOTAL INTERNAL DEBRIS MUST NOT EXCEED 4.0mg WHEN TESTED TO
LRLTM 30.IC101 OR SIMILAR APPROVED METHOD.
THE MAXIMUM PERMISSIBLE PARTICLE SIZE MUST NOT EXCEED
400 microns/0.6mg WHEN MEASURED IN ACCORDANCE WITH LRLTM 30.DD.103.

LOCKING RING TO MEET THE REQUIREMENTS OF SAE J2587.

(D1) COMPONENT TO COMPLY WITH FORD MOTOR COMPANY ENGINNERING CAD &
DRAFTING STANDARD E-3 & E-108. (CODING & BRANDING)
COMPONENT TO COMPLY WITH FORD MOTOR COMPANY ENGINEERING CAD &
DRAFTING STANDARD E-4 (IDENTIFICATION OF POLYMERIC MATERIALS

GROSS INTERNAL CAPACITY - 85.0 LITRES

LIQUID CAPACITY (ACCORDING TO FU-1047) -70.5 LITRES

(D2) USABLE CAPACITY (ACCORDING TO FU-1049)- 68.5 LITRES

(D3) WEIGHT OF FUEL TANK ASSEMBLY - 11.26kg ± 0.5kg (H3)

FOR CURRENT RELEASE STATUS SEE WERS ENGINEERING NOTICE.

AS SUPPLIED TO JAGUAR LAND ROVER COMPONENT MUST BE FREE INTERNALLY
FROM THE FOLLOWING:-
- ALL MANUFACTURING AND PROCESS TEST FLUIDS.
- ALL IN PROCESS PRESSURE TEST FLUIDS.
- ALL MANUFACTURING DEBRIS.
-WATER, DIRT OR DUST INGRESS.

FULL TRACEABILITY TO BE INDELIBLY MARKED / LABELLED ON THIS ASSEMBLY
WITH REGARD TO YEAR, MONTH, DAY, TIME, ASSEMBLY LINE TEST DATA AND
CRITICAL SECOND TIER SUPPLIER COMPONENTS ie FUEL DELIVERY MODULE
AND SENDER(S).

100% LEAK TEST ACCORDING TO ESYU5A-9000-AC: PRESSURE DIFFERENTIAL TEST USING
100% HELIUM. LEAK RATE TO BE LESS THAN 1.4 x 10-5 mbar 1/s AT 70mb DIFFERENTIAL PRESSURE
AFTER LEAK TESTING NO PART TO BE REMOVED OR CHANGED WITHOUT RETESTING.

100% FUEL PUMP MODULE AND SENDER UNIT AND TANK VALVE FUNCTIONALITY
TESTS TO BE CARRIED OUT IN LINE WITH PROCESS CONTROL DOCUMENTS AGREED
WITH JAGUAR/LANDROVER PRODUCT DEVELOPMENT AND STA DEPARTMENTS.

PUMP START TEST - MEDIUM AIR, VOLTAGE 6+/-0.1V.
MEASURING TIME 1<t<5 SECS.
CURRENT <4A. MAX 2 TESTS.

▽ SENDER UNIT(S) ROLL OVER TEST TO CONFORM -
SENDER FLOAT POSITION EMPTY RESISTANCE VALUE : 992±10.5 Ω
SENDER FLOAT POSITION FULL RESISTANCE VALUE : 51.2±1 Ω
SENDER FLOAT POSITION BACK TO EMPTY RESISTANCE VALUE : 992±10.5 Ω

▽ FOR ELECTRICAL CONNECTOR PIN OUT INFORMATION REFER TO DRAWING
BJ32-9A309-AA

▽ FUEL TANK GASKET TO BE CLEAN AND FREE FROM ANY SURFACE IMPERFECTION THAT
MAY BE DETRIMENTAL TO ITS SEALING INTEGRITY.

▽ CONTROL ITEM - THE ▽ ALSO IDENTIFIES CRITICAL CHARACTERISTICS DESIGNATED BY THE CROSS FUNCTIONAL TEAMS DEVELOPING THE PRODUCT. THESE AND ADDITIONAL CRITICAL CHARACTERISTICS IDENTIFIED BY PROCESS REVIEWS MUST APPEAR ON THE CONTROL PLANS ACCORDING TO QS-9000. THESE CONTROL PLANS REQUIRE PRODUCT ENGINEERING APPROVAL.

▽ 100% TANK VENT SYSTEM - VACUUM TEST
(APPLY THE VACUUM AT THE BREATHER STUB CONNECTION)
ROLL TANK OVER 180° FROM NORMAL VEHICLE FITTED POSITION.
APPLY A VACUUM OF AT LEAST - 150mb.
EVACUATION TIME 5 SECS MINIMUM.
STABILISATION TIME 10 SECS MINIMUM.
LEAK CHECK FOR 20 SECS MINIMUM.
LEAK RATE TO BE <50ccm.
RELEASE VACUUM, ROLL BACK TO NORMAL VEHICLE FITTED POSITION.
ENSURE VALVE HAS RE-OPENED

ALL INTERNAL & EXTERNAL CONNECTIONS TO BE 100% VERIFIED.

▽ TORQUE FIGURES TO BE 100% MONITORED AND RECORDED ON AN AUDIT
SYSTEM - ITEM 4 TIGHTEN CAM LOCK TO CLOSURE STOP. TORQUE TO
ACHIEVE THIS 250Nm ±20Nm ANGULAR ROTATION START AND FINISH TO
BE MONITORED DURING ASSEMBLY. ANGULAR ROTATION 17.3°.

▽ AT KAUTEX UNIPART COVENTRY, FOLLOWING SPEC. ALLOWABLE:
(H8) FOR LOCKING RING (ITEM 4) TIGHTEN CAM LOCK TO CLOSURE STOP,
WITH 100% CHECK TO ENSURE INCOMPLTE ROTATION IS IDENTIFIED AS NOK ON CAQ.
FOLLOW OPERATION WITH LEAK TEST SPECIFIED ON THIS DRAWING.

ALL FUEL LINES AND TANK OPENINGS AS DESIGNATED TO BE CAPPED
DURING ASSEMBLY, TRANSPORT AND STORAGE. CAP(S) MUST PROTECT
* ANY SEALING SURFACE AND MUST REMAIN EFFECTIVE FOR PROLONGED
STORAGE. CAP(S) MUST EASILY BE REMOVED WITHOUT THE USE OF
TOOLS. IT MUST NOT BE POSSIBLE TO FIT ASSEMBLY TO MATING
COMPONENTS WITH CAP(S) STILL IN PLACE.

NO LUBRICANT TO BE USED DURING THE MANUFACTURE OF PARTS OR
ASSEMBLY OF PARTS UNLESS AUTHORISED BY JLR MATERIALS AND
FUEL SYSTEM ENGINEERING DEPARTMENTS.

COMPONENT TO BE STOWED, PALLETISED, TRANSPORTED AND STORED
SUCH THAT NO DISTORTION OF FORM, INTERNAL OR EXTERNAL DAMAGE
OR DIRT INGRESS CAN OCCUR TO THE ASSEMBLY.

ASSEMBLY TO BE FREE FROM FLASH, BURRS, SHARP EDGES AND ANY
OTHER IMPERFECTIONS THAT MAY CAUSE INJURY DURING HANDLING
OR THAT WOULD BE DETRIMENTAL TO ITS ASSEMBLY OR PERFORMANCE.

CHANGES AFFECTING DESIGN, COMPOSITION OR PROCESSING TO THE
ASSEMBLY OR SUB COMPONENTS PREVIOUSLY APPROVED FOR PRODUCTION
REQUIRE PRIOR APPROVAL FROM JLR PRODUCT ENGINEERING. REFER TO
QS9000.

UNLESS OTHERWISE SPECIFIED ALL LINES AND SURFACES, SAME SIDE
OF MATERIAL AS DATUM.

ALL SEALING SURFACES TO BE CLEAN AND FREE FROM ANY SURFACE
IMPERFECTIONS (INCLUDING) HOLES, SPOTS, DENTS, FLASH AND OFFSET
MOULDING LINES.

AFTER ASSEMBLY ALL HOSES, PIPES TO BE FREE FROM KINKS.

ALL PROTECTIVE CAPS TO BE REMOVED, AND LINES TO BE UNSTOWED
PRIOR TO ASSEMBLY OF COMPONENT TO VEHICLE.

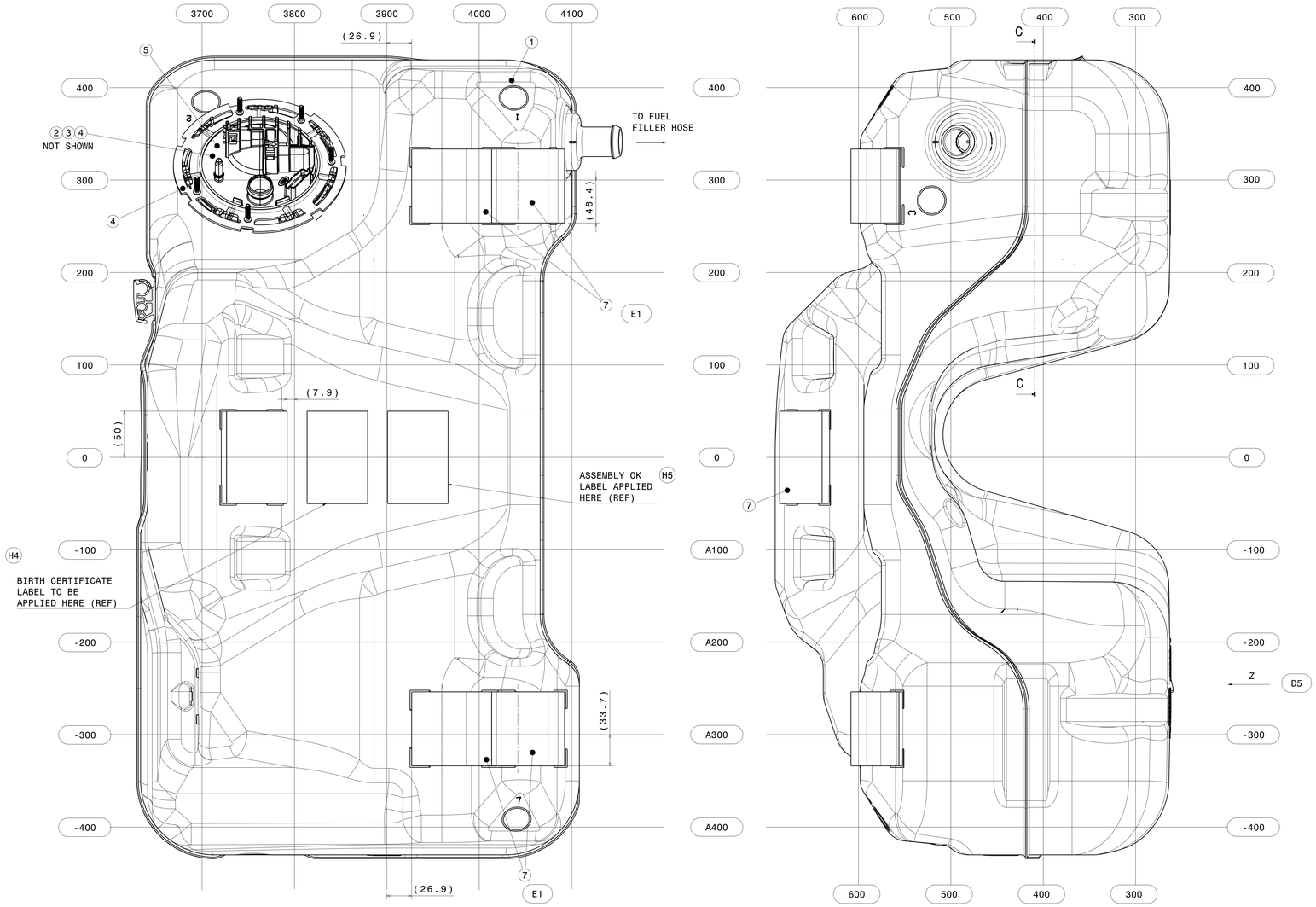
TEST CERTIFICATION LABEL / FINISHED GOODS LABEL -
- DATE OF FINAL ASSEMBLY
- TIME OF FINAL ASSEMBLY
- SEQUENTIAL ID NUMBER. (WHICH CORRELATES WITH CAQ DATA)
- PRODUCT DESCRIPTION & VARIANT INFORMATION
- PART NUMBER

SERVICE NOTE:
IF ITEM 11 FLNG FU/TNK SDR & OLET TUB MTNG (FLANGE) IS REMOVED OR DISTURBED IN
SERVICE A NEW GSKT FU/TNK SDR ITEM 3 MUST BE USED. REFER TO
SHEET 3 FOR CORRECT ORIENTATION REPLACEMENT OF ITEM 4
RG - FU/TNK.

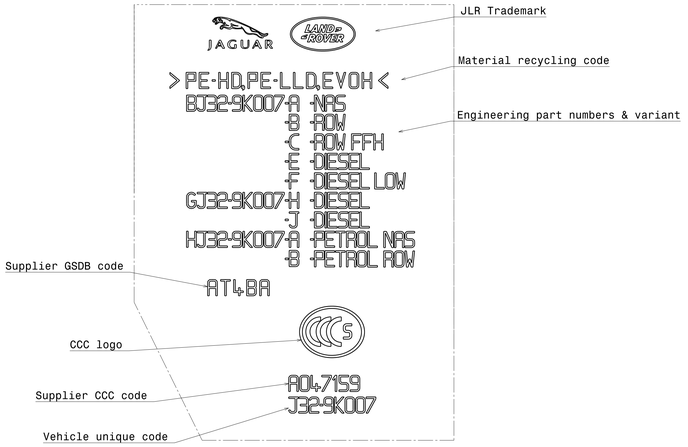
LTRS	REVISIONS			
ORIGINATOR	CHECKER	ENGR APP	MATL APP	
RELEASE OF BJ32-9K007-AA UEP2 E 12303820 000 20100128				
AWATSO38	SWRIGH65	KWILKIN6	MATSENG	
RELEASE OF BJ32-9K007-AB UEP2 E 50002162 000 20100729				
GPARKE78	SWRIGH65	KWILKIN6	MATSENG	
RELEASE OF BJ32-9K007-AC C1.MINOR TANK SURFACE MODS.CLIP MODIFIED C2.ITEM 1 WAS BJ32-9002-AA UEP2 E 50004233 000 20100928				
GPARKE78	SWRIGH65	KWILKIN6	MATSENG	
RELEASE OF BJ32-9K007-AD D1. E3 WAS E2 D2. 68.5 WAS 70.0 D3. 11.1KG +/- 0.5KG WAS TBC D4. BJ32-9002-AC WAS AB D5. SCRAP VIEW ON ARROW Z ADDED (SHEET2) D6. NOTE ADDED REF CLIP LATCH (SHEET3) UEP2 E 50010365 000 20110208				
SWRIGH65	SWRIGH65	KWILKIN6	MATSENG	
RELEASE OF BJ32-9K007-AE E1. ITEM 7 WAS BJ32-48781-BA QTY 3 UEP2 E 50013485 000 20110421				
SWRIGH65	SWRIGH65	KWILKIN6	MATSENG	
RELEASE OF BJ32-9K007-AF F1.ITEM 2 WAS BJ32-9H307-AA F2.ITEM 6 WAS BJ32-9066-AA UEP2 E 50022232 000 20111013				
GPARKE78	SWRIGH65	GVOICE	MATSENG	
RELEASE OF BJ32-9K007-AF rev2 F3.SECTION A-A (SHT 3) PICTORIALLY UPDATED UEP2 E 50026265 000 120110				
GPARKE78	GOAG	GVOICE	MATSENG	
RELEASE OF BJ32-9K007-AG G1. ITEM 2 WAS CJ32-9H307-AA UEP2 E 50058622 000 130427				
SWRIGH65	SWRIGH65	GVOICE	MATSENG	
RELEASE OF BJ32-9K007-AH H1. ITEM NO.1 WAS BJ32-9002-AC UEP2 E 50094494 000 140805				
JRATHORE	SWRIGH65	GVOICE	MATSENG	
RELASE OF BJ32-9K007-AH REV 16 H2 NOTE ADDED SECTION 3.3.2 REFER TO TANK WELDED AND BLOWN SHELL DRAWINGS LATEST ISSUE H3 WEIGHT WAS 10.7Kg H4 NOTE ADDED IN ZONE J23 SHEET2 BIRTH CERTIFICATE LABEL TO BE APPLIED HERE (REF) H5 NOTE ADDDED IN ZONE K17 SHEET2 ASSEMBLY OK LABEL APPLIED HERE (REF) H6 NAME PLATE REVISED IN DETAIL VIEW ON ARROW Z H7 BOM REVISED ALTERNATIVE NO ADDED FOR ITEM 4 H8 TORQUE TIGHTING SPEC. NOTE ADDED UEP2 E 50156970 000 160527				
RKALE2	SCHECKLE	GVOICE	MATSENG	

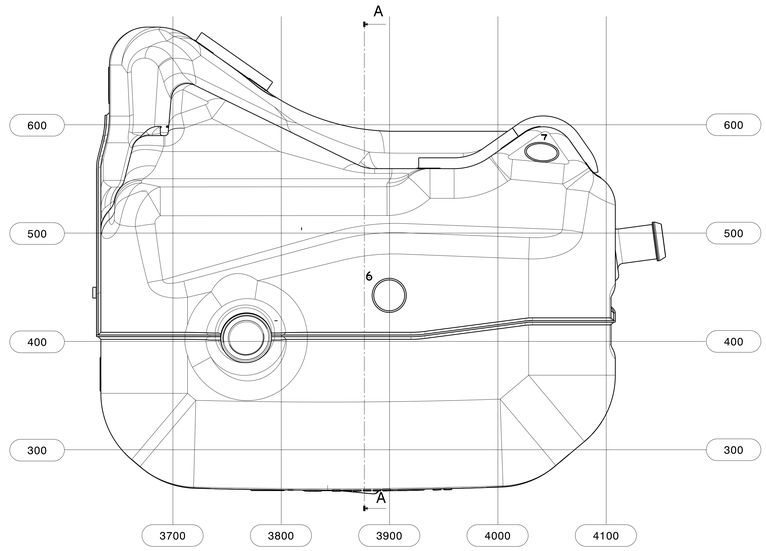
REFERENCE	DS-L538-100101-C01-12		
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD STJLR.99.9999 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT			
DRAFTED IN ACCORDANCE WITH JAGUAR LAND ROVER PLM STANDARDS CURRENT AT INITIAL RELEASE		3RD ANGLE PROJ DIMENSIONS ARE IN MILLIMETRES	
CAD TYPE K-CATIA5	CAD LOC. TCe	CAD FILE REV BJ32-9K007-A-DWG-01 ;16	DTMC IS MASTER
DESIGN AWATSO38	DETAIL AWATSO38	DRAWING BJ32-9K007-AH	SHT 1 OF 3
CHECKED SWRIGH65	SAFETY N/A	TITLE TNK & SDR ASY FUL	
SCALE 1:2 UOS	DATE 20090602		SIZE A1
JAGUAR LAND ROVER LIMITED			

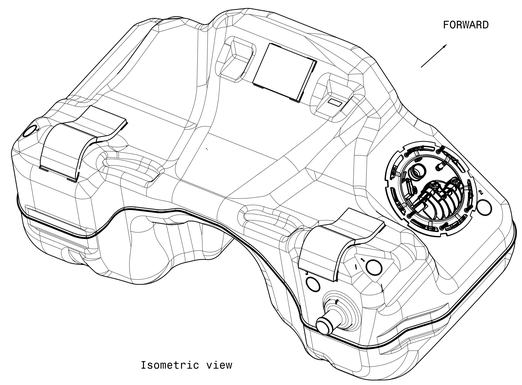
DO NOT SCALE FROM DRAWING PRINTED COPIES ARE UNCONTROLLED



ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	BJ32-9002-AD	TNK ASY FUL	1
2	CJ32-9H307-AB	SDR & PMP ASY-FU/TNK	1
3	6H52-9276-AA	GSKT-FU/TNK SDR	1
4	6H52-9C385-BB ALTERNATIVE NO JJ32-9C385-AA	RG-FU/PMP RET LK	1
5	BH22-9A309-AA	FLNG FU/TNK SDR & OLET TUB MTG	1
6	BJ32-9066-AB	BRKT ASY-FU/TNK SUPT	1
7	6H52-48781-AA	FOAM PAD (100 X 80 X 10)	5
8	BJ32-67520-CA	BRKT ASSY - TANK	1







Isometric view

DETAIL VIEW ON ARROW Z
SHOWING PART MARKING
SCALE: 1:1

DIMENSION		TOLERANCE
OVER	UPTO	+/-
0	127	2
127.1	254	3
254.1	508	4
508.1	OVER	5

DRAWING BJ32-9K007-AH		REV 16	SHT 2 OF 3
CAD FILE BJ32-9K007-A-DWG-01	JAGUAR LAND ROVER LIMITED		

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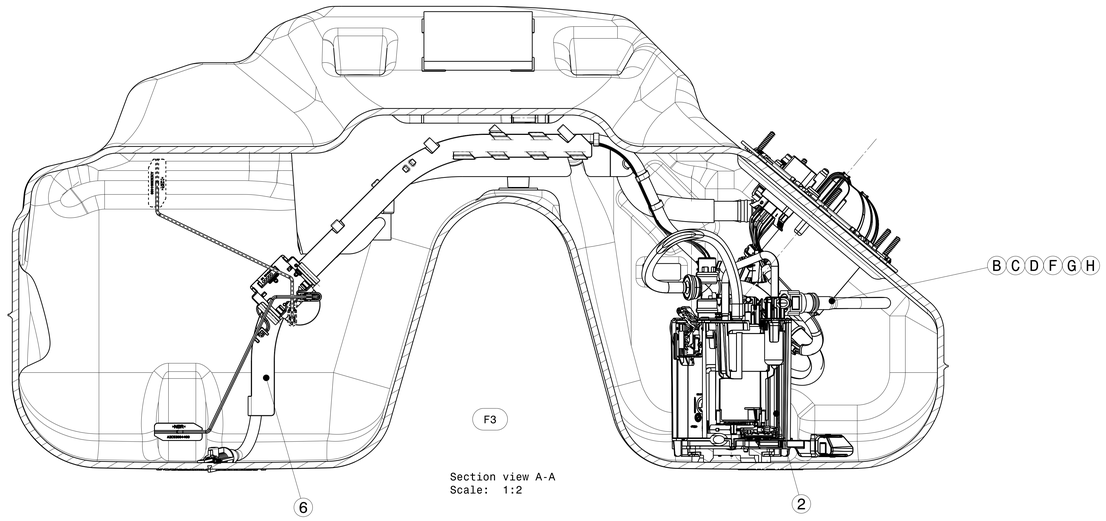
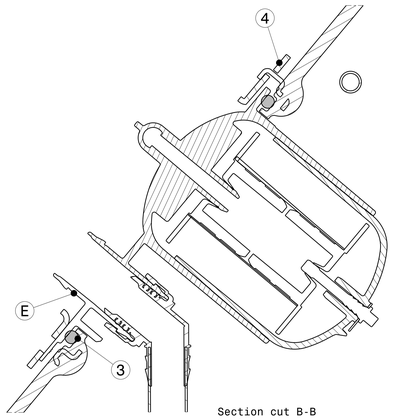
TANK INTERNAL CONNECTIONS

	ITEM No	CONNECTION DESCRIPTION
★	A	SDR & PMP ASY-FU/TNK TO BAYONET (FDM TO BAYONET)
★	B	SDR & OLET TUB ASY FU/TNK TO SDR & PMP ASY FU/TNK (SUCKING JET TO FDM)
▽	C	SDR & PMP ASY FEED TO FLNG FU/TNK SDR & OLET TUB MTG (FEED TO FLANGE)
★	D	SDR & PMP ASY ELECTRICAL CONNECTOR TO FLNG FU/TNK SDR & OLET TUB MTG (ELECTRICAL CONNECTOR TO FLANGE)
★	E	BREATHER TO FLANGE
★	F	SDR + PUMP ASY EARTH ELECTRICAL CONNECTOR TO PUMP ASSY FLANGE (PUMP TO FLANGE)
★	G	ELECTRICAL FLYLEAD TO BRKT (PASSIVE MAPPS)
★	H	ELECTRICAL FLYLEAD TO FDM (PASSIVE MAPPS)



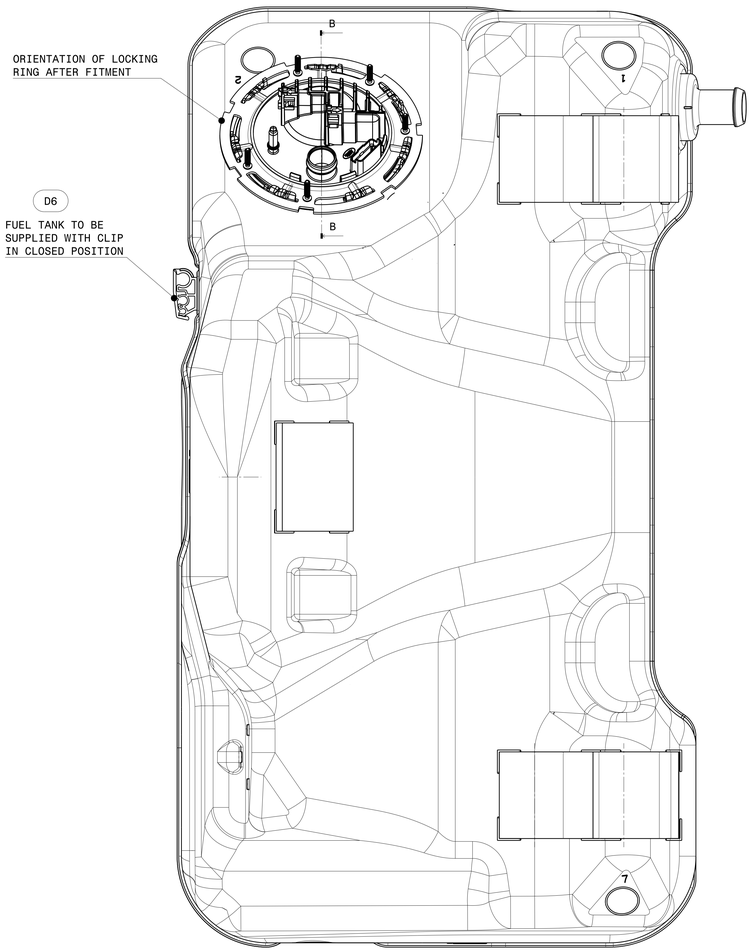
Section view A-A
Scale: 1:2

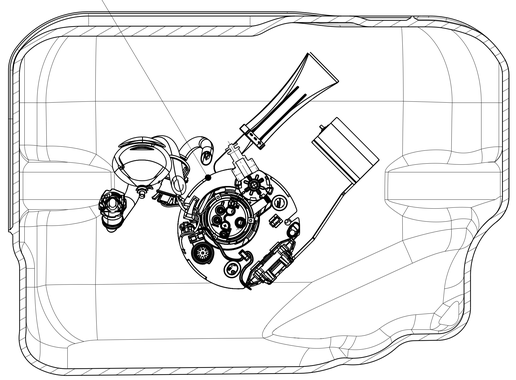
WHEN FITTED, ENSURE ITEM 6
IS HELD BY THE RETENTION LATCH
FEATURE ON THE INTERNAL BRKT



Section cut B-B
Scale: 1:1

SECTION THROUGH TANK, FLANGE, SEAL,
ENCAPSULATED RING AND LOCKING RING





Section view C-C
Scale: 1:2

DRAWING	BJ32-9K007-AH
REV	16
SHT	3 OF 3
CAD FILE	BJ32-9K007-A-DWG-01
	JAGUAR LAND ROVER LIMITED

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NOTES:

* REFER TO SUPPLEMENT K DOCUMENT AND CRT

THIS ASSEMBLY MUST COMPLY WITH THE REQUIREMENTS OF ENGINEERING SPECIFICATION ES 3U5A-9002-BB, EXCEPT FOR THE SECTION 3.6 CONTAMINATION WHERE NOTE BELOW APPLIES.

THIS ASSY MUST COMPLY WITH THE REQUIREMENTS OF ENGINEERING SPECIFICATION FTDVPX250.10

LOCKING RING TO MEET THE REQUIREMENTS OF SAE J2587.

COMPONENT TO BE MARKED IN LINE WITH FORD MOTOR COMPANY ENGINEERING CAD & DRAFTING STANDARD E-3.
COMPONENT TO COMPLY WITH THE IDENTIFICATION OF FORD MOTOR COMPANY ENGINEERING CAD & DRAFTING STANDARD E-4 FOR POLYMERIC MATERIALS.

GROSS CAPACITY - 79.55 LITRES

EMPTY TO DESIGN CUT OFF - 71.1 LITRES

USABLE CAPACITY - 69.5 LITRES

WEIGHT OF FUEL TANK ASSEMBLY - 12.550Kg ± 0.5Kg

* TOTAL INTERNAL DEBRIS MUST NOT EXCEED 4.0mg WHEN TESTED TO LRLTM 30.IC101 OR SIMILAR APPROVED METHOD.
THE MAXIMUM PERMISSIBLE PARTICLE SIZE MUST NOT EXCEED 400 microns/0.6mg WHEN MEASURED IN ACCORDANCE WITH LRLTM 30.DD.103.

FOR CURRENT RELEASE STATUS SEE WERS ENGINEERING NOTICE.

THIS ASSEMBLY IS TO CONFORM TO THE GPDS REQUIREMENTS OF THE RELEVANT FORD AND JAGUAR / LAND ROVER SPECIFICATIONS CONTAINED IN THE DESIGN VERIFICATION PLAN LATEST ISSUE.

AS SUPPLIER TO JAGUAR / LAND ROVER COMPONENT MUST BE FREE INTERNALLY FROM THE FOLLOWING:-
- ALL MANUFACTURING AND PROCESS TEST FLUIDS.
- ALL IN PROCESS PRESSURE TEST FLUIDS.
- ALL MANUFACTURING DEBRIS, SWARF OR WELD SPATTER.
-WATER, DIRT OR DUST INGRESS.

FULL TRACEABILITY TO BE INDELIBLY MARKED / LABELLED ON THIS ASSEMBLY WITH REGARD TO YEAR, MONTH, DAY, TIME, ASSEMBLY LINE TEST DATA AND CRITICAL SECOND TIER SUPPLIER COMPONENTS ie FUEL DELIVERY MODULE AND SENDER(S).

THIS ASSEMBLY IS TO MEET THE LEGISLATIVE REQUIREMENTS OF ECE34, ECE34 ANNEX 5 AND EEC DIRECTIVE 70/221, CHINA FUEL TANKS.

▽ 100% LEAK TEST: PRESSURE DIFFERENTIAL TEST USING 100% HELIUM. LEAK RATE TO BE LESS THAN 1.4 x 10^{-5} l/s AT 140 mbar DIFFERENTIAL PRESSURE.
AFTER LEAK TESTING NO PART TO BE REMOVED OR CHANGED WITHOUT RETESTING.

▽ 100% FUEL PUMP MODULE AND SENDER UNIT AND TANK VALVE FUNCTIONALITY TESTS TO BE CARRIED OUT IN LINE WITH PROCESS CONTROL DOCUMENTS AGREED WITH JAGUAR/LANDROVER PRODUCT ENGINEERING AND STA DEPARTMENTS.

▽ PUMP START TEST - MEDIUM AIR, VOLTAGE 6+/-0.1V.
MEASURING TIME 1<t<5 SECS.
CURRENT <4A. MAX 2 TESTS.

▽ ACTIVE SENDER UNIT ROLL OVER TEST TO CONFORM -
SENDER FLOAT POSITION EMPTY RESISTANCE VALUE WITHIN TOLERANCE 51.2±1
SENDER FLOAT POSITION FULL RESISTANCE VALUE WITHIN TOLERANCE 992±10.5
SENDER FLOAT BACK TO EMPTY RESISTANCE VALVE WITHIN TOLERANCE 51.2±1

▽ PASSIVE SENDER UNIT ROLL OVER TEST TO CONFORM -
SENDER FLOAT POSITION EMPTY RESISTANCE VALUE WITHIN TOLERANCE: 51.2±1Ω
SENDER FLOAT POSITION FULL RESISTANCE VALUE WITHIN TOLERANCE: 445±25Ω
SENDER FLOAT POSITION BACK TO EMPTY RESISTANCE VALUE WITHIN TOLERANCE: 51.2±1Ω

FOR ELECTRICAL CONNECTOR PIN OUT INFORMATION REFER TO DRAWING 9X23-9A309-A LATEST ISSUE.

FUEL TANK GASKET TO BE CLEAN AND FREE FROM ANY SURFACE IMPERFECTION THAT MAY BE DETRIMENTAL TO ITS SEALING INTEGRITY.

REFER TO FUEL TANK ASSY STOWAGE POSITION DOCUMENT FOR DELIVERED CONDITION TO CASTLE BROMWICH ASSY PLANT.

▽ 100% TANK VENT SYSTEM - VACUUM TEST
ROLL TANK OVER 180° FROM NORMAL VEHICLE FITTED POSITION.
APPLY A VACUUM OF AT LEAST - 150mb.
APPLY THE VACUUM AT THE BREATHER STUB CONNECTION.
EVACUATION TIME 5 SECS MINIMUM.
STABILISATION TIME 10 SECS MINIMUM.
LEAK CHECK FOR 20 SECS MINIMUM.
LEAK RATE TO BE <50ccm.
RELEASE VACUUM, ROLL BACK TO NORMAL VEHICLE FITTED POSITION.

ALL INTERNAL & EXTERNAL CONNECTIONS TO BE 100% VERIFIED.

▽ TORQUE FIGURES TO BE 100% MONITORED AND RECORDED ON AN AUDIT SYSTEM - ITEM 4 TIGHTEN CAM LOCK TO CLOSURE STOP. TORQUE TO ACHIEVE THIS 250Nm ±20Nm ANGULAR ROTATION START AND FINISH TO BE MONITORED DURING ASSEMBLY. ANGULAR ROTATION 17.3°.

ALL FUEL LINES AND TANK OPENINGS AS DESIGNATED TO BE CAPPED DURING ASSEMBLY, TRANSPORT AND STORAGE. CAP(S) MUST PROTECT ANY SEALING SURFACE AND MUST REMAIN EFFECTIVE FOR PROLONGED STORAGE. CAP(S) MUST EASILY BE REMOVED WITHOUT THE USE OF TOOLS. IT MUST NOT BE POSSIBLE TO FIT ASSEMBLY TO MATING COMPONENTS WITH CAP(S) STILL IN PLACE.

* NO LUBRICANT TO BE USED DURING THE MANUFACTURE OF PARTS OR ASSEMBLY OF PARTS UNLESS AUTHORISED BY JLR MATERIALS AND FUEL SYSTEM ENGINEERING DEPARTMENTS.

COMPONENT TO BE STOWED, PALLETISED, TRANSPORTED AND STORED SUCH THAT NO DISTORTION OF FORM, INTERNAL OR EXTERNAL DAMAGE OR DIRT INGRESS CAN OCCUR TO THE ASSEMBLY.

ASSEMBLY TO BE FREE FROM FLASH, BURRS, SHARP EDGES AND ANY OTHER IMPERFECTIONS THAT MAY CAUSE INJURY DURING HANDLING OR THAT WOULD BE DETRIMENTAL TO ITS ASSEMBLY OR PERFORMANCE.

CHANGES AFFECTING DESIGN, COMPOSITION OR PROCESSING TO THE ASSEMBLY OR SUB COMPONENTS PREVIOUSLY APPROVED FOR PRODUCTION REQUIRE PRIOR APPROVAL FROM JLR PRODUCT ENGINEERING. REFER TO QS9000.

ENGINEERING APPROVAL OF A MINIMUM OF SIX SAMPLES FROM EACH SUPPLIER IS REQUIRED PRIOR TO FIRST SHIPMENT OF PARTS FOR INITIAL RELEASE AND FOR SUBSEQUENT CHANGE REQUESTS.

UNLESS OTHERWISE SPECIFIED ALL LINES AND SURFACES, SAME SIDE OF MATERIAL AS DATUM.

ALL SEALING SURFACES TO BE CLEAN AND FREE FROM ANY SURFACE IMPERFECTIONS (INCLUDING) HOLES, SPOTS, DENTS, FLASH AND OFFSET MOULDING LINES.

AFTER ASSEMBLY ALL HOSES, PIPES TO BE FREE FROM KINKS.

DO NOT USE HOSES / PIPES ATTACHED TO THIS ASSEMBLY TO REMOVE FROM STILLAGE OR CARRY COMPONENT.

ALL PROTECTIVE CAPS TO BE REMOVED, AND LINES AND ELECTRICAL CONNECTOR TO BE UNSTOWED PRIOR TO ASSEMBLY OF COMPONENT TO VEHICLE.

TEST CERTIFICATION LABEL / FINISHED GOODS LABEL -
- DATE OF FINAL ASSEMBLY
- TIME OF FINAL ASSEMBLY
- SEQUENTIAL ID NUMBER. (WHICH CORRELATES AGAINST CAQ DATA)
- PRODUCT DESCRIPTION & VARIENT INFORMATION
- PART NUMBER

IT IS THE RESPONSIBILITY OF THE COMPONENT / ASSEMBLY MANUFACTURER TO ENSURE THAT THE COMPONENT / ASSEMBLY MEETS THE REQUIREMENTS OF THE CHINESE PARTS MARKING - CCC

IT IS ALSO THE RESPONSIBILITY OF THE COMPONENT / ASSEMBLY MANUFACTURER TO ENSURE THAT COPIES OF APPROVAL CERTIFICATES FOR BOTH THE ASSEMBLY PLANT AND THE COMPONENT / ASSEMBLY MUST BE FORWARDED TO THE RELEVANT JLR REPRESENTATIVE UPON ISSUE FROM THE CHINESE AUTHORITIES

SERVICE NOTE:
IF ITEM 8 FLNG FU/TNK SDR & OLET TUB MTNG (FLANGE) IS REMOVED OR DISTURBED IN SERVICE A NEW GSKT FU/TNK SDR ITEM 3 MUST BE USED. REFER TO SHEET 3 FOR CORRECT ORIENTATION REPLACEMENT OF ITEM 4 RG - FU/TNK.

▽ CONTROL ITEM - THE ▽ ALSO IDENTIFIES CRITICAL CHARACTERISTICS DESIGNATED BY THE CROSS FUNCTIONAL TEAMS DEVELOPING THE PRODUCT. THESE AND ADDITIONAL CRITICAL CHARACTERISTICS IDENTIFIED BY PROCESS REVIEWS MUST APPEAR ON THE CONTROL PLANS ACCORDING TO QS-9000. THESE CONTROL PLANS REQUIRE PRODUCT ENGINEERING APPROVAL.

FEDERAL FUEL TANK TOP LEVEL ASSEMBLY

LTRS	REVISIONS			
ORIGINATOR	CHECKER	ENGR APP	MATL APP	
RELEASE OF CX23-9K007-AA UEP2 E 50010079 000		20110216		
PMANNER2	COAG	KWILKIN6	MATSENG	
RELEASE OF CX23-9K007-AB DRAWING UPDATE ONLY UEP2 E 50014593 000		20110518		
PMANNER2	COAG	KWILKIN6	MATSENG	
RELEASE OF CX23-9K007-AC C1 ITEM 1 WAS 9X23-9002-AH C2 ITEM 2 WAS 9X23-9H307-AD C3 ITEM 8 WAS 9X23-9A309-AD C4 ITEM 10 WAS 9X23-9S305-AA UEP2 E 50021941 000		20111015		
VKAMATH	PREDHEAD	PWADSWOR	MATSENG	

REFERENCE	DS-X250-100100-C810-32		
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT			
DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION 17.0		3RD ANGLE PROJ - DIMENSIONS ARE IN MILLIMETERS	
CAD TYPE K-CATIA5	CAD LOC. TCE	CAD FILE CX23-9K007-A-DWG-01 ;4	DTMC IS MASTER
OPER. NO. N/A	UNIT N/A	DRAWING CX23-9K007-AC	
DESIGN PMANNER2	DETAIL PMANNER2	TITLE TNK & SDR ASY FUL	SHT 1 OF 3
CHECKED COAG	SAFETY N/A		
SCALE 1:1	DATE 20110216	DIVISION JAGUAR	
		PLANT GAYDON	

JAGUAR CARS LIMITED LAND ROVER

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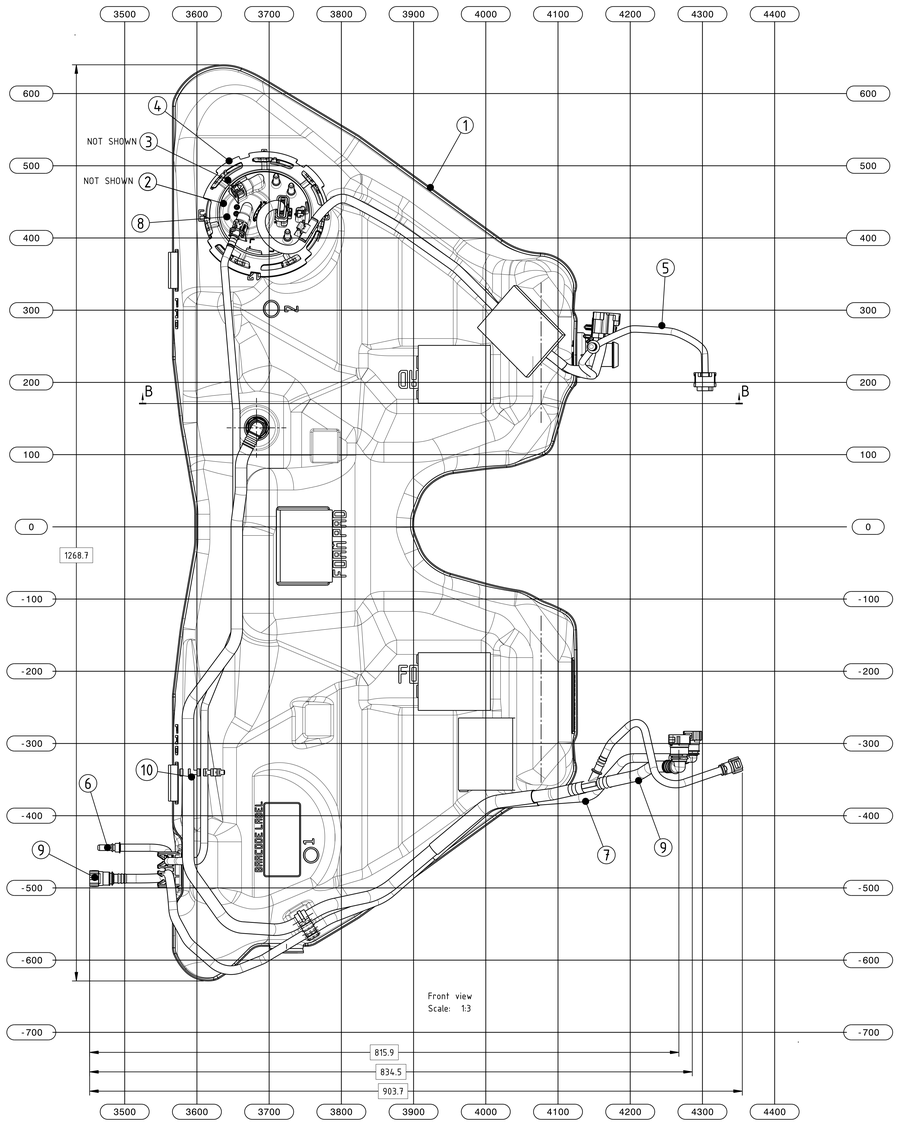
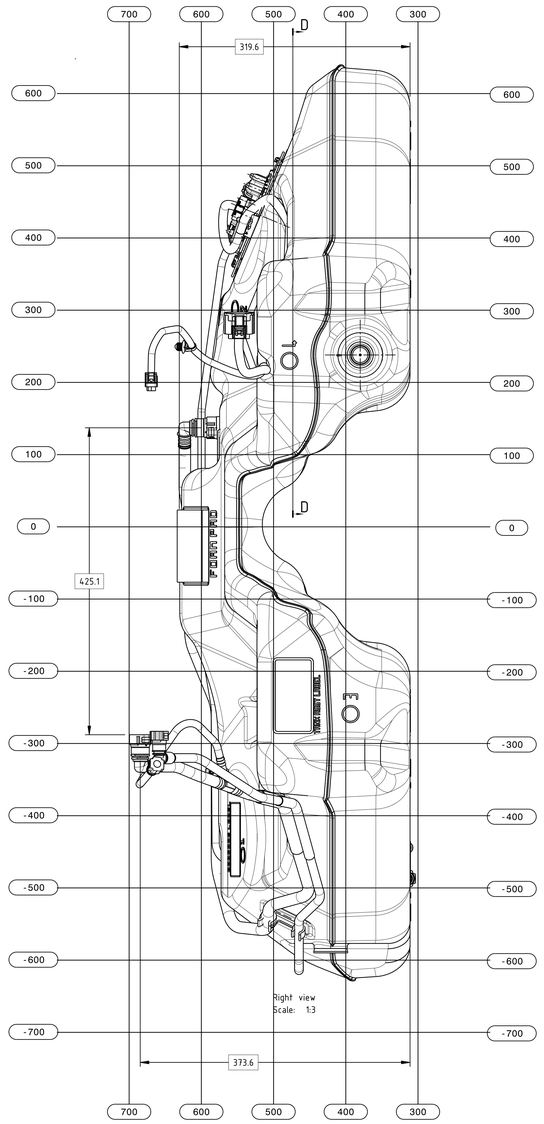
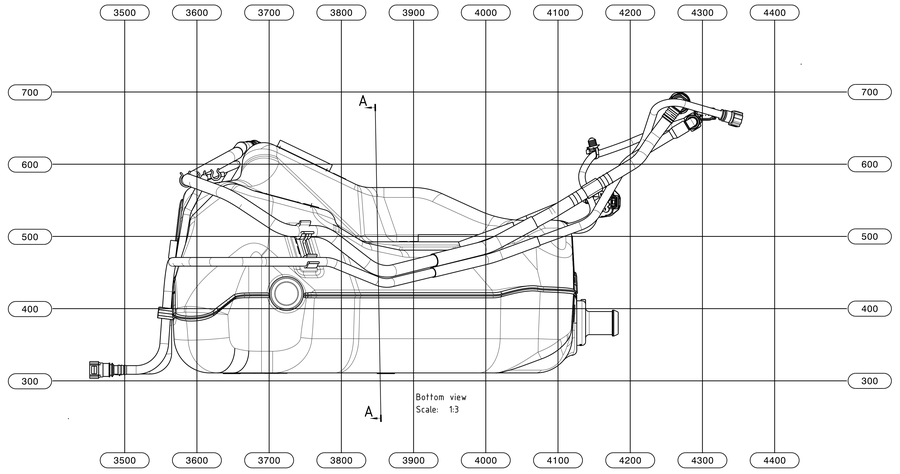
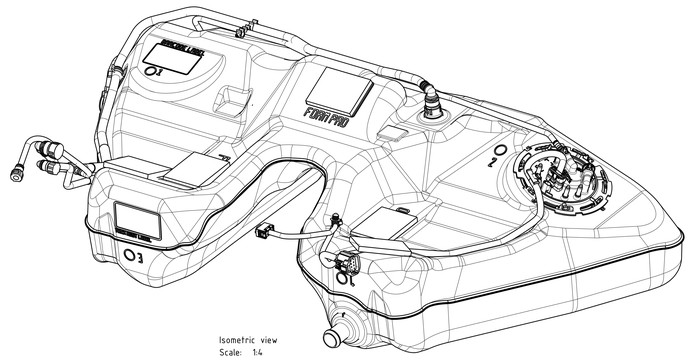




	ITEM	PART NUMBER	DESCRIPTION	QUANTITY
C1	1	9X23-9002-AJ	TNK ASY FUL	1
C2	2	9X23-9H307-AE	SDR & PMP ASY-FU/TNK	1
	3	6H52-9276-AA	GSKT-FU/TNK SDR	1
	4	9X23-9C385-AA	RG-FU/PMP RET LK	1
	5	CX23-14407-AB	HARNESS (PETROL)	1
	6	9X23-9327-AB	HOS ASY FUL TUB RR	1
	7	9X23-9A186-AB	PIP-FU/TNK VEN RR LH	1
C3	8	9X23-9A309-AE	FLNG FU/TNK SDR & OLET TUB MTNG	1
	9	9X23-9C047-AC	TUB ASY FU/VPR CONTR VLV	1
C4	10	CX23-9S305-AA	CLP-FU/VPR TUB	1

DIMENSION		TOLERANCE
OVER	UPTO	+/-
0	127	2
127.1	254	3
254.1	508	4
508.1	OVER	5





FEDERAL FUEL TANK TOP LEVEL ASSY

DRAWING	CX23-9K007-AC	REV 4	SHT 2 OF 3
CAD FILE	CX23-9K007-A-DWG-01	JAGUAR CARS LIMITED LAND ROVER	

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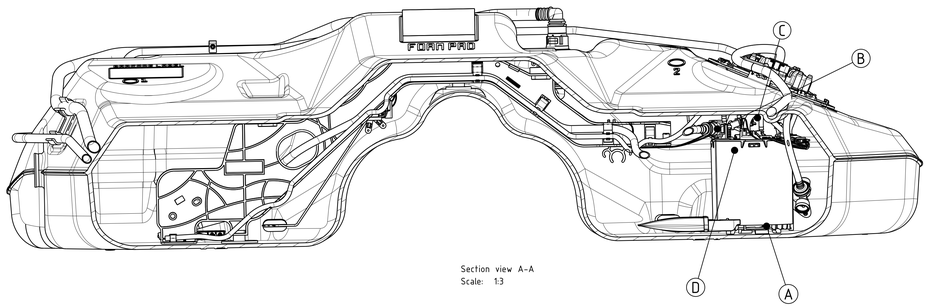
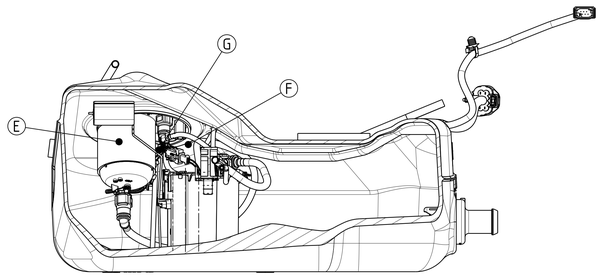


Section view A-A
Scale: 1:3

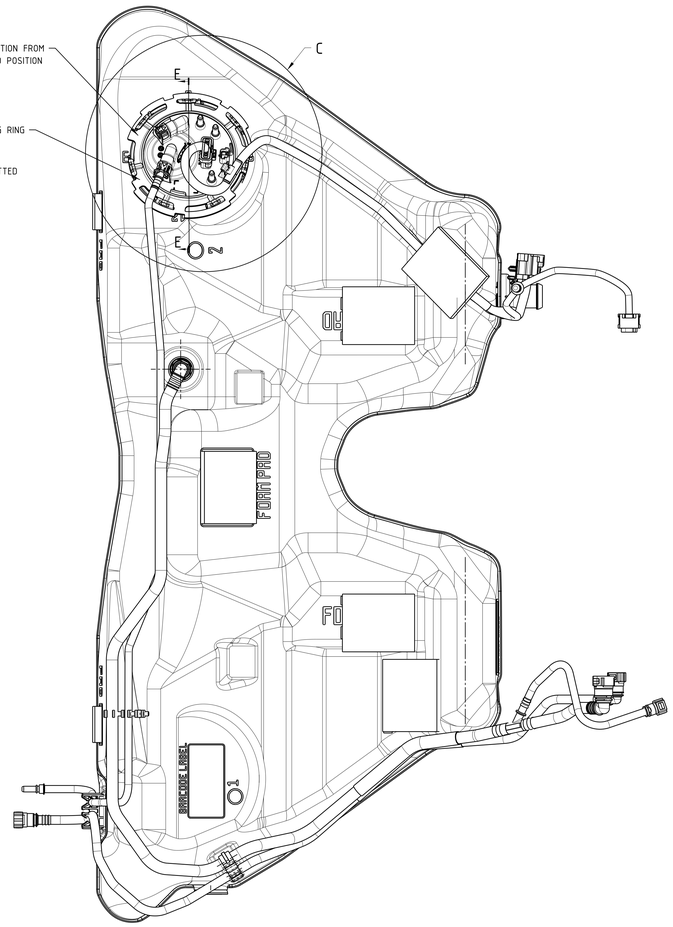


Section view B-B
Scale: 1:3

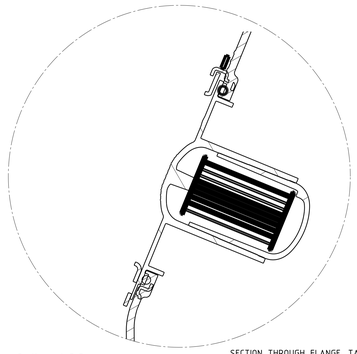
LOCKING RING ROTATION FROM START TO LATCHED POSITION 17'30' +15'/-0'

ORIENTAION LOCKING RING AFTER FITMENT

ITEMS 5,6 & 7 OMITTED FOR CLARITY

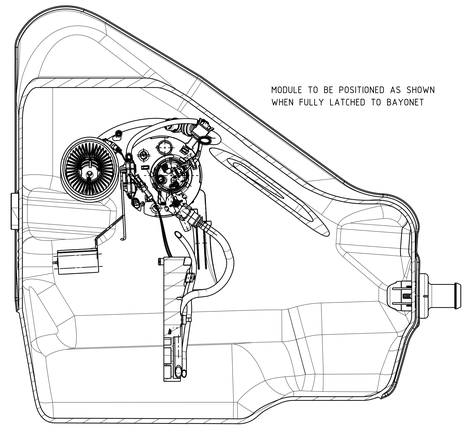


Front view
Scale: 1:3

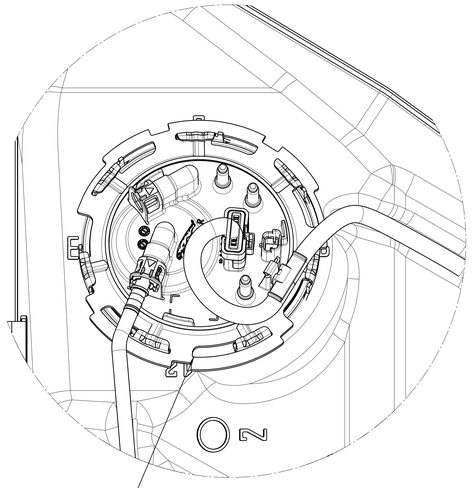


Section cut E-E
Scale: 2:3

SECTION THROUGH FLANGE, TANK, SEAL, ENCAPSULATED RING AND LOCKING RING.



Section view D-D
Scale: 1:3



Detail C
Scale: 2:3

* FLANGE TAB TO BE LOCATED IN THIS ORIENTATION

ITEMS 4,5,6 AND 7 ARE OMITTED FOR CLARITY

TANK INTERNAL CONNECTIONS

	ITEM No	CONNECTION DESCRIPTION
*	A	SDR & PMP ASY PETROL TO BAYONET
*	B	VPR & BRKT ASY-FUL VENTURI TO SDR & PMP ASY
*	C	SDR & PMP ASY ELECTRICAL CONNECTOR TO VPR & BRKT ASY-FUL ELECTICAL CONNECTOR
▽	D	SDR & PMP FEED LINE CONNECTION TO FLNG FU/TNK SDR & OLET TUB MTNG
*	E	VPR & BRKT ASY-FUL DRAIN TUBE TO SDR & PMP ASY FLANGE
*	F	SDR & PMP ASY EARTH ELECTRICAL CONNECTOR TO SDR & PMP ASY FLANGE
*	G	SDR & PMP ASY ELECTRICAL CONNECTOR TO SDR & PMP ASY FLANGE

FEDERAL FUEL TANK TOP LEVEL ASSY

DRAWING	CX23-9K007-AC	REV 4	SHT 3 OF 3
CAD FILE	CX23-9K007-A-DWG-01	JAGUAR CARS LIMITED LAND ROVER	

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NOTES:

* REFER TO SUPPLIER CRT DOCUMENT FOR FURTHER INFORMATION.

THIS ASSEMBLY MUST COMPLY WITH THE REQUIREMENTS OF ENGINEERING SPECIFICATION ES 3U5A-9002-BB, DATED 12 MAY 04 EXCEPT FOR THE SECTION 3.6 CONTAMINATION WHERE NOTE BELOW APPLIES.

LOCKING RING TO MEET THE REQUIREMENTS OF SAE J2587.

COMPONENT TO BE MARKED IN LINE WITH FORD MOTOR COMPANY ENGINEERING CAD & DRAFTING STANDARD E-3.
COMPONENT TO COMPLY WITH THE IDENTIFICATION OF FORD MOTOR COMPANY ENGINEERING CAD & DRAFTING STANDARD E-4 FOR POLYMERIC MATERIALS.

GROSS CAPACITY - 92 LITRES

EMPTY TO DESIGN CUT OFF -82 LITRES

USABLE CAPACITY - 80 LITRES

WEIGHT OF FUEL TANK ASSEMBLY - 18kg ± 0.5kg

* TOTAL INTERNAL DEBRIS MUST NOT EXCEED 4.0mg WHEN TESTED TO LRLTM 30.IC101 OR SIMILAR APPROVED METHOD.
THE MAXIMUM PERMISSIBLE PARTICLE SIZE MUST NOT EXCEED 400 microns/0.6mg WHEN MEASURED IN ACCORDANCE WITH LRLTM 30.DD.103.

FOR CURRENT RELEASE STATUS SEE WERS ENGINEERING NOTICE.

THIS ASSEMBLY IS TO CONFORM TO THE GPDS REQUIREMENTS OF THE RELEVANT FORD AND JAGUAR / LAND ROVER SPECIFICATIONS CONTAINED IN THE DESIGN VERIFICATION PLAN LATEST ISSUE X351 10MY.

AS SUPPLIER TO JAGUAR / LAND ROVER COMPONENT MUST BE FREE INTERNALLY FROM THE FOLLOWING:-
- ALL MANUFACTURING AND PROCESS TEST FLUIDS.
- ALL IN PROCESS PRESSURE TEST FLUIDS.
- ALL MANUFACTURING DEBRIS, SWARF OR WELD SPATTER.
-WATER, DIRT OR DUST INGRESS.

FULL TRACEABILITY TO BE INDELIBLY MARKED / LABELLED ON THIS ASSEMBLY WITH REGARD TO YEAR, MONTH, DAY, TIME, ASSEMBLY LINE TEST DATA AND CRITICAL SECOND TIER SUPPLIER COMPONENTS ie FUEL DELIVERY MODULE AND SENDER(S).

BIRTH CERTIFICATION LABEL -
DATE OF CARCASS BLOW MOULD
TIME OF CARCASS BLOW MOULD
SEQUENTIAL CARCASS ID NUMBER
PRODUCT GENERIC IDENTIFICATION

THIS ASSEMBLY IS TO MEET THE LEGISLATIVE REQUIREMENTS OF ECE34, ECE34 ANNEX 5 AND EEC DIRECTIVE 70/221, CHINA FUEL TANKS.

▽ 100% LEAK TEST: PRESSURE DIFFERENTIAL TEST USING 100% HELIUM. LEAK RATE TO BE LESS THAN 1.4 x 10-5 mbar 1/s AT 140mb DIFFERENTIAL PRESSURE AFTER LEAK TESTING NO PART TO BE REMOVED OR CHANGED WITHOUT RETESTING.

▽ 100% FUEL PUMP MODULE AND SENDER UNIT AND TANK VALVE FUNCTIONALITY TESTS TO BE CARRIED OUT IN LINE WITH PROCESS CONTROL DOCUMENTS AGREED WITH JAGUAR/LANDROVER PRODUCT ENGINEERING AND STA DEPARTMENTS.

▽ PUMP START TEST - MEDIUM AIR, VOLTAGE 6+/-0.1V.
MEASURING TIME 1<t<5 SECS.
CURRENT <4A. MAX 2 TESTS.

SENDER UNIT(S) ROLL OVER TEST TO CONFORM -
▽ SENDER FLOAT POSITION EMPTY RESISTANCE VALUE WITHIN TOLERANCE: 51.2±1 Ω
SENDER FLOAT POSITION FULL RESISTANCE VALUE WITHIN TOLERANCE: 992±10.5 Ω
SENDER FLOAT POSITION BACK TO EMPTY RESISTANCE VALUE WITHIN TOLERANCE: 51.2±1 Ω

FOR ELECTRICAL CONNECTOR PIN OUT INFORMATION REFER TO DRAWING DX23-9H307-A* LATEST ISSUE.

FUEL TANK GASKET TO BE CLEAN AND FREE FROM ANY SURFACE IMPERFECTION THAT MAY BE DETRIMENTAL TO ITS SEALING INTEGRITY.

REFER TO FUEL TANK ASSY STOWAGE POSITION DOCUMENT FOR DELIVERED CONDITION TO CASTLE BROMWICH ASSY PLANT.

LEVII HYDROCARBON EMISSIONS REQUIREMENT FOR THIS ASSEMBLY TO BE <60mg/DAY WITH A TARGET OF 40mg/DAY

IT IS THE RESPONSIBILITY OF THE COMPONENT/ASSEMBLY MANUFACTURER TO ENSURE THAT THE COMPONENT/ASSEMBLY MEETS THE REQUIREMENTS OF CHINESE PARTS MARKING -CCC. IT IS ALSO THE RESPONSIBILITY OF THE COMPONENT/ASSEMBLY MANUFACTURER TO ENSURE THAT COPIES OF APPROVAL CERTIFICATES FOR THE ASSEMBLY PLANT AND COMPONENT/ASSEMBLY ARE FORWARDED TO THE RELEVANT JLR REPRESENTATIVE UPON ISSUE FROM THE CHINESE AUTHORITIES.

▽ 100% TANK VENT SYSTEM - VACUUM TEST
ROLL TANK OVER 180° FROM NORMAL VEHICLE FITTED POSITION.
APPLY A VACUUM OF AT LEAST - 150mb.
APPLY THE VACUUM AT THE BREATHER STUB CONNECTION.
EVACUATION TIME 5 SECS MINIMUM.
STABILISATION TIME 10 SECS MINIMUM.
LEAK CHECK FOR 20 SECS MINIMUM.
LEAK RATE TO BE <50ccm.
RELEASE VACUUM, ROLL BACK TO NORMAL VEHICLE FITTED POSITION.
ENSURE VALVE HAS RE-OPENED

ALL INTERNAL & EXTERNAL CONNECTIONS TO BE 100% VERIFIED.

▽ TORQUE FIGURES TO BE 100% MONITORED AND RECORDED ON AN AUDIT SYSTEM - ITEM 4 TIGHTEN CAM LOCK TO CLOSURE STOP. TORQUE TO ACHIEVE THIS 250Nm ±20Nm ANGULAR ROTATION START AND FINISH TO BE MONITORED DURING ASSEMBLY. ANGULAR ROTATION 17.3°.

▽ TORQUE FIGURE FOR ITEM 13 - 7Nm ± 1Nm

ALL FUEL LINES AND TANK OPENINGS AS DESIGNATED TO BE CAPPED DURING ASSEMBLY, TRANSPORT AND STORAGE. CAP(S) MUST PROTECT ANY SEALING SURFACE AND MUST REMAIN EFFECTIVE FOR PROLONGED STORAGE. CAP(S) MUST EASILY BE REMOVED WITHOUT THE USE OF TOOLS. IT MUST NOT BE POSSIBLE TO FIT ASSEMBLY TO MATING COMPONENTS WITH CAP(S) STILL IN PLACE.

DUST CAPS TO BE PRESENT ON ICV AND FUEL FEED LINES

* NO LUBRICANT TO BE USED DURING THE MANUFACTURE OF PARTS OR ASSEMBLY OF PARTS UNLESS AUTHORISED BY JLR MATERIALS AND FUEL SYSTEM ENGINEERING DEPARTMENTS.

COMPONENT TO BE STOWED, PALLETISED, TRANSPORTED AND STORED SUCH THAT NO DISTORTION OF FORM, INTERNAL OR EXTERNAL DAMAGE OR DIRT INGRESS CAN OCCUR TO THE ASSEMBLY.

ASSEMBLY TO BE FREE FROM FLASH, BURRS, SHARP EDGES AND ANY OTHER IMPERFECTIONS THAT MAY CAUSE INJURY DURING HANDLING OR THAT WOULD BE DETRIMENTAL TO ITS ASSEMBLY OR PERFORMANCE.

CHANGES AFFECTING DESIGN, COMPOSITION OR PROCESSING TO THE ASSEMBLY OR SUB COMPONENTS PREVIOUSLY APPROVED FOR PRODUCTION REQUIRE PRIOR APPROVAL FROM JLR PRODUCT ENGINEERING. REFER TO QS9000.

ENGINEERING APPROVAL OF A MINIMUM OF SIX SAMPLES FROM EACH SUPPLIER IS REQUIRED PRIOR TO FIRST SHIPMENT OF PARTS FOR INITIAL RELEASE AND FOR SUBSEQUENT CHANGE REQUESTS.

UNLESS OTHERWISE SPECIFIED ALL LINES AND SURFACES, SAME SIDE OF MATERIAL AS DATUM.

ALL SEALING SURFACES TO BE CLEAN AND FREE FROM ANY SURFACE IMPERFECTIONS (INCLUDING) HOLES, SPOTS, DENTS, FLASH AND OFFSET MOULDING LINES.

AFTER ASSEMBLY ALL HOSES, PIPES TO BE FREE FROM KINKS.

DO NOT USE HOSES / PIPES ATTACHED TO THIS ASSEMBLY TO REMOVE FROM STILLAGE OR CARRY COMPONENT.

ALL PROTECTIVE CAPS TO BE REMOVED, AND LINES TO BE UNSTOWED PRIOR TO ASSEMBLY OF COMPONENT TO VEHICLE.

TEST CERTIFICATION LABEL / FINISHED GOODS LABEL -
- DATE OF FINAL ASSEMBLY
- TIME OF FINAL ASSEMBLY
- SEQUENTIAL ID NUMBER. (WHICH CORRELATES AGAINST CAQ DATA)
- PRODUCT DESCRIPTION & VARIENT INFORMATION
- PART NUMBER

SERVICE NOTE:
IF ITEM 11 FLNG FU/TNK SDR & OLET TUB MTNG (FLANGE) IS REMOVED OR DISTURBED IN SERVICE A NEW GSKT FU/TNK SDR ITEM 3 MUST BE USED. REFER TO SHEET 3 FOR CORRECT ORIENTATION REPLACEMENT OF ITEM 4
RG - FU/TNK.

▽ CONTROL ITEM - THE ▽ ALSO IDENTIFIES CRITICAL CHARACTERISTICS DESIGNATED BY THE CROSS FUNCTIONAL TEAMS DEVELOPING THE PRODUCT. THESE AND ADDITIONAL CRITICAL CHARACTERISTICS IDENTIFIED BY PROCESS REVIEWS MUST APPEAR ON THE CONTROL PLANS ACCORDING TO QS-9000. THESE CONTROL PLANS REQUIRE PRODUCT ENGINEERING APPROVAL.

LTRS	REVISIONS			
ORIGINATOR	CHECKER	ENGR APP	MATL APP	

RELEASE OF DW93-9K007-AA
UEP2 E 50024858 000 120216

PMORGA65	AWHITEMA	GVOICE	MATSENG

RELEASE OF DW93-9K007-AB
B1. ITEM 1 WAS DW93-9002-AA
B2. ITEM 2 WAS DX23-9H307-AA
B3. ITEM 10 WAS DW93-9275-AA
UEP2 E 50036082 000 120605

HHERUR	PVOKES	GVOICE	MATSENG

RELEASE OF DW93-9K007-AC
C1. ITEM 4 WAS AW93-9C385-AB
C2. ITEM 9 WAS W707828
C3. ITEM 12 REMOVED
C4. ITEM 13 WAS W520411-S439
UEP2 E 50044698 000 20121203

HJAYARAM	PVOKES	GVOICE	MATSENG

FEDERAL FUEL TANK TOP LEVEL ASSY - 13MY

REFERENCE	DS-X351-100100-C810-24 & 25			
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD STJLR.99.9999 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT				
DRAFTED IN ACCORDANCE WITH JAGUAR LAND ROVER PLM STANDARDS CURRENT AT INITIAL RELEASE			3RD ANGLE PROJ DIMENSIONS ARE IN MILLIMETRES	
CAD TYPE K-CATIA5	CAD LOC. TCe	CAD FILE DW93-9K007-A-DWG-01	REV ;3	DTMC IS MASTER
DESIGN PMORGA65	DETAIL PMORGA65	DRAWING DW93-9K007-AC		SHT 1 OF 3
CHECKED AWHITEMA	SAFETY N/A	TITLE TNK & SDR ASY FUL		RH/LH SHOWN
SCALE 1:1	DATE 120216			SIZE A1

JAGUAR CARS LIMITED LAND ROVER

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