

**Project: FIRE TEST FOR SOFT-SEATED
BALL VALVE**

Certificate No.: 898/08 - 9587

Client: J.C. FÁBRICA DE VÁLVULAS, S.A.

Office: Sant Joan Despí (BCN)

Client's Order No.: ---

Date: 30.09.08

Inspection dates

First: 30.09.08

Order Status: Complete

Final: 30.09.08

This certificate is issued to

Messrs. **J.C. FABRICA DE VÁLVULAS, S.A.**, upon their request that the undersigned Suveryor to this Society did attend their premises at their works in Sant Boi de Llobregat - Barcelona (Spain) for the purpose of witnessing the FIRE TEST in accordance with the requirements specified in ISO 10497:2004, on the following type of valve:

A manually operate soft seated ball valve of 2" bore 2", L.I.T symetric Valve as per fig. 6015 TB class 150#.

Body and Connector material LF2

Seats: SEE DRAWING 6015TB050

Ball material: SEE DRAWING 6015TB050

Stem: SEE DRAWING 6015TB050

Marks:

- BODY : Col. 783514H
- CONNECTOR : Col. 176947

The test conducted on the valve previously subject to hydraulic pressure was as follows:

The valve in the closed position, filled with water under test pressure, was put in a box and exposed to flames with an environmental temperature in the region 750° C for a period of 30 minutes and established the leakage trough the seat and external to atmosphere during this period. The temperature was checked and recorded every two minutes, while leakages were determined using containers collecting the water leaked during burn period. Afterwards cool-down to 100° C. The valve seat and external hydrostatically tested to the appropriate test pressure and leakages recorded accordingly. Subsequently manually opened up under test pressure differential and finally the valve was fully hydrottested and leakages recorded.

All the following values were determined and recorded together with temperatures, times and pressures as shown on manufacturers Fire Safe Test Report nº C898/08

SGS Tecnos, S.A.

1. Through-valve leakage during burn period - SATISFACTORY.
2. External leakage during burn and cool-down period - SATISFACTORY.
3. Through-valve leakage during operational test - SATISFACTORY.
4. External leakage during operational test - SATISFACTORY.
5. Operability to full open position and external leakage - SATISFACTORY.

The valve was subject to a visual examination with satisfactory results and subsequently dismantled in order to verify that valves components comply with the drawing and parts list supplied by the manufacturer, while seat rings were found completely destroyed.

The manufacturers Fire Safe Test Report nº C898/08 and drawing 6015TB050 herewith attached were satisfactory checked and signed.

The above is considered in accordance with the mentioned specifications requirements, therefore the subject valve has satisfactory passed the prescribed fire test and can be also qualified as follows.

<u>DN</u>	<u>CLASS RATING</u>	<u>PN RATING</u>
50 and below, 65, 80, 100	150#, 300#	10, 16, 25, 40



Surveyor Javier Aranda García

SGS Tecnos, S.A.
C/ Las Planas nº 1, Mòdul B
Polígon Industrial Fontcuberta
08970 Sant Joan Despí (Barcelona)
Tel: (34) 93 477 01 71 - 93 477 01 69
Fax: (34) 93 373 15 00

DOCUMENTS ATTACHED:
Sheets reviewed and stamped
Accordingly.

**Project: FIRE TEST FOR SOFT-SEATED
BALL VALVE**

Certificate No.: 897/08 - 9587

Client: J.C. FÁBRICA DE VÁLVULAS, S.A.

Office: Sant Joan Despí (BCN)

Client's Order No.: ---

Date: 29.09.08

Inspection dates

Order Status: Complete

First: 29.09.08

Final: 29.09.08

This certificate is issued to

Messrs. **J.C. FABRICA DE VÁLVULAS, S.A.**, upon their request that the undersigned Suveryor to this Society did attend their premises at their works in Sant Boi de Llobregat - Barcelona (Spain) for the purpose of witnessing the FIRE TEST in accordance with the requirements specified in ISO 10497:2004, on the following type of valve:

A manually operate soft seated ball valve of 2" bore 2", L.I.D.V symetric Valve as per fig. 6060 TB class 600#.

Body and Connector material LF2

Seats: SEE DRAWING 6060TB050

Ball material: SEE DRAWING 6060TB050

Stem: SEE DRAWING 6060TB050

Marks:

- BODY : Col. 783514H
- CONNECTOR : Col. 176947

The test conducted on the valve previously subject to hydraulic pressure was as follows:

The valve in the closed position, filled with water under test pressure, was put in a box and exposed to flames with an environmental temperature in the region 750° C for a period of 30 minutes and established the leakage trough the seat and external to atmosphere during this period. The temperature was checked and recorded every two minutes, while leakages were determined using containers collecting the water leaked during burn period. Afterwards cool-down to 100° C. The valve seat and external hydrostatically tested to the appropriate test pressure and leakages recorded accordingly. Subsequently manually opened up under test pressure differential and finally the valve was fully hydrottested and leakages recorded.

All the following values were determined and recorded together with temperatures, times and pressures as shown on manufacturers Fire Safe Test Report nº C897/08

SGS Tecnos, S.A.

Certificate No.: **897/08 - 9587**
Office: **Sant Joan Despí (BCN)**
Date: **29.09.08**
Sheet 2 of 3

1. Through-valve leakage during burn period - SATISFACTORY.
2. External leakage during burn and cool-down period - SATISFACTORY.
3. Through-valve leakage during operational test - SATISFACTORY.
4. External leakage during operational test - SATISFACTORY.
5. Operability to full open position and external leakage - SATISFACTORY.

The valve was subject to a visual examination with satisfactory results and subsequently dismantled in order to verify that valves components comply with the drawing and parts list supplied by the manufacturer, while seat rings were found completely destroyed.

The manufacturers Fire Safe Test Report nº C897/08 and drawing 6060TB050 herewith attached were satisfactory checked and signed.

The above is considered in accordance with the mentioned specifications requirements, therefore the subject valve has satisfactory passed the prescribed fire test and can be also qualified as follows.

<u>DN</u>	<u>CLASS RATING</u>	<u>PN RATING</u>
50 and below, 65, 80, 100	600, 800, 900	100, 150



Surveyor **Javier Aranda García**

SGS Tecnos, S.A.

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08970 Sant Joan Despí (Barcelona)
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Fax.: (34) 93 373 15 00

DOCUMENTS ATTACHED:
Sheets reviewed and stamped
Accordingly.

(*) RECOMMENDED SPARE PARTS

	2	PLASTIC CAP	PLASTIC	
912	1	BOLT	8.8	s./a.- T912M03888
89	1	IDENTIFICATION PLATE	STAINLESS ST.	
75	1	STEM BUSHING	AISI-316 WITH INSIDE IN PTFE	s./a.- QGDI222510
72.1	1	"O" RING	FKM	ø25.07 x 2.62
72	2	"O" RING	FKM	ø21.89 x 2.62
54	2	SEAT CARRIER SEAL	GRAPHITE	3 x 3 x 195
52	2	"O" RING	FKM	ø94.92 x 2.62
50.1	1	VENT PLUG	A-105	s./a.- DT18NP1A
50	2	DRAIN PLUG	A-105	s./a.- DT12NP1A
47	1	KEY	CARBON ST.	8637CH Rev.0
40	1	GASKET	GRAPHITE	JG30x3.7 Rev.0
39	1	STEM BUSHING	AISI-316 WITH INSIDE IN PTFE	s./a.- QGDI222510
37	2	"O" RING	FKM	ø57.15 x 3.53
34	1	UPPER CAP	A 350 Gr. LF2 Class-1	6060TB050FS Rev.0
33	2	"O" RING	FKM	ø57.15 x 3.53
32	24	SPRING	INCONEL-750	PV22.0080.0207
31	2	SEAT CARRIER	A 182 F316	PV22.0080.0207
28	16	NUT	ANSI B18.2.2 Tabla 3 UNC 5/8"-11	
26.1	4	BOLT	12.9	s./a.- T912M0655129
26	4	BOLT	12.9	s./a.- T912M0640129
23	2	BEARING	PTFE	s./a.- J8I5012515.1 (ø42xø32x0.3)
22	2	TRUNNION BEARING	AISI-316 WITH INSIDE IN PTFE	s./a.- QGDI323606
21	2	BALL TRUNNION	A 350 Gr. LF2 Class-1 + E.N.P.	6060TB050GB Rev.0
15	16	STUD	A 193 Gr. B7M	SU58622222 Rev.0
14.1	8	STOP PIN	CARBON ST.	PIU418M Rev.0
14	4	STOP PIN	CARBON ST.	s./a.- PIU530A
13	2	BODY CONNECTOR SEAL	GRAPHITE	6060TB050JCL Rev.0
12	1	STEM THRUST SEAL	PTFE + 25% G.F.	s./a.- JE65FV (ø28.7xø22x2.5)
11	1	GLAND PACKING	GRAPHITE	6060TB050P Rev.0
10	1	GLAND	A 350 Gr. LF2 Class-1	6060TB050PP Rev.0
5	2	SEAT RING	RPTFE	PV22.0080.0207
4	1	STEM	A 479 Tp.410	6060TB050E Rev.0
3	1	BALL	A 351 Gr. CF8M	6060TB050B Rev.0
2	2	BODY CONNECTOR	A 350 Gr. LF2 Class-1	6060TB050L Rev.1
1	1	BODY	A 350 Gr. LF2 Class-1	6060TB050C Rev.1

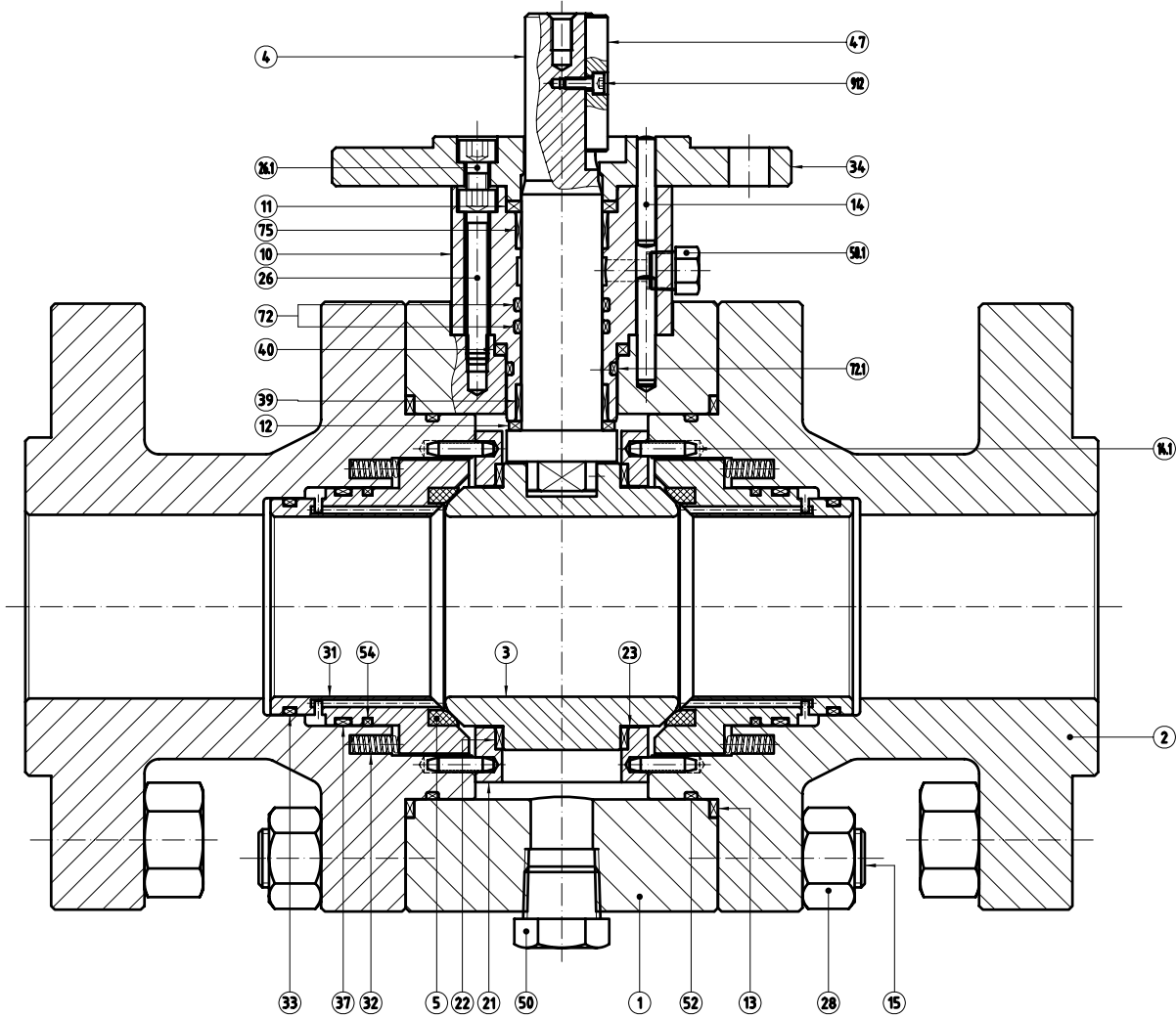
POS.	QUAN.	DENOMINATION	MATERIAL	DRAWING N°.

0	First issue	10-07	J. RUBIO		
Rev.	Modification	Date	Nam.	Approv.	

Dimensions	Drawn	10-07	J. RUBIO	 JC Fábrica de válvulas, S.A. 08830 Sant Bot de Llorenç del Val (Spain) Tel. + (34) 936 54 86 86 // Fax + (34) 936 86 87 e.mail: technical@jc-valves.com
Weight:	Checked	10-07	J.R.	
Substitutes:	Scale:			Ref.:
Substitutes by:	1:1			Drawing n°:

GENERAL DRAWING FIG.6060 DN-2" Class-600 FB RF FIRE SAFE TEST		Ref.: 6060TB050
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This drawing is our property. It is strictly forbidden to use the drawing, to give it to third parties or to reproduce it totally or partially without our permission.



**Project: FIRE TEST FOR SOFT-SEATED
BALL VALVE**

Certificate No.: 220/08 - 9587

Client: J.C. FÁBRICA DE VÁLVULAS, S.A.

Office: Sant Joan Despí (BCN)

Client's Order No.: ---

Date: 01.04.08

Inspection dates

First: 01.04.08

Order Status: Complete

Final: 01.04.08

This certificate is issued to

Messrs. **J.C. FABRICA DE VÁLVULAS, S.A.**, upon their request that the undersigned Suveryor to this Society did attend their premises at their works in Sant Boi de Llobregat - Barcelona (Spain) for the purpose of witnessing the FIRE TEST in accordance with the requirements specified in ISO 10497:2004, on the following type of valve:

A manually operate soft seated ball valve of 6" L.I.T full bore symetric Valve as per fig. 6015 TB class 150#.

Body and Connector material A350 Gr.LF2, CLASS -1

Seats: SEE DRAWING 6015TB150

Ball material: SEE DRAWING 6015TB150

Stem: SEE DRAWING 6015TB150

Marks:

- BODY : Col. 783621H
- CONNECTOR : Col. 176947

The test conducted on the valve previously subject to hydraulic pressure was as follows:

The valve in the closed position, filled with water under test pressure, was put in a box and exposed to flames with an environmental temperature in the region 750° C for a period of 30 minutes and established the leakage trough the seat and external to atmosphere during this period. The temperature was checked and recorded every two minutes, while leakages were determined using containers collecting the water leaked during burn period. Afterwards cool-down to 100° C. The valve seat and external hydrostatically tested to the appropriate test pressure and leakages recorded accordingly. Subsequently manually opened up under test pressure differential and finally the valve was fully hydrottested and leakages recorded.

All the following values were determined and recorded together with temperatures, times and pressures as shown on manufacturers Fire Safe Test Report n° C220/08

SGS Tecnos, S.A.

1. Through-valve leakage during burn period - SATISFACTORY.
2. External leakage during burn and cool-down period - SATISFACTORY.
3. Through-valve leakage during operational test - SATISFACTORY.
4. External leakage during operational test - SATISFACTORY.
5. Operability to full open position and external leakage - SATISFACTORY.

The valve was subject to a visual examination with satisfactory results and subsequently dismantled in order to verify that valves components comply with the drawing and parts list supplied by the manufacturer, while seat rings were found completely destroyed.

The manufacturers Fire Safe Test Report nº C220/08 and drawing 6015TB150 herewith attached were satisfactory checked and signed.

The above is considered in accordance with the mentioned specifications requirements, therefore the subject valve has satisfactory passed the prescribed fire test and can be also qualified as follows.

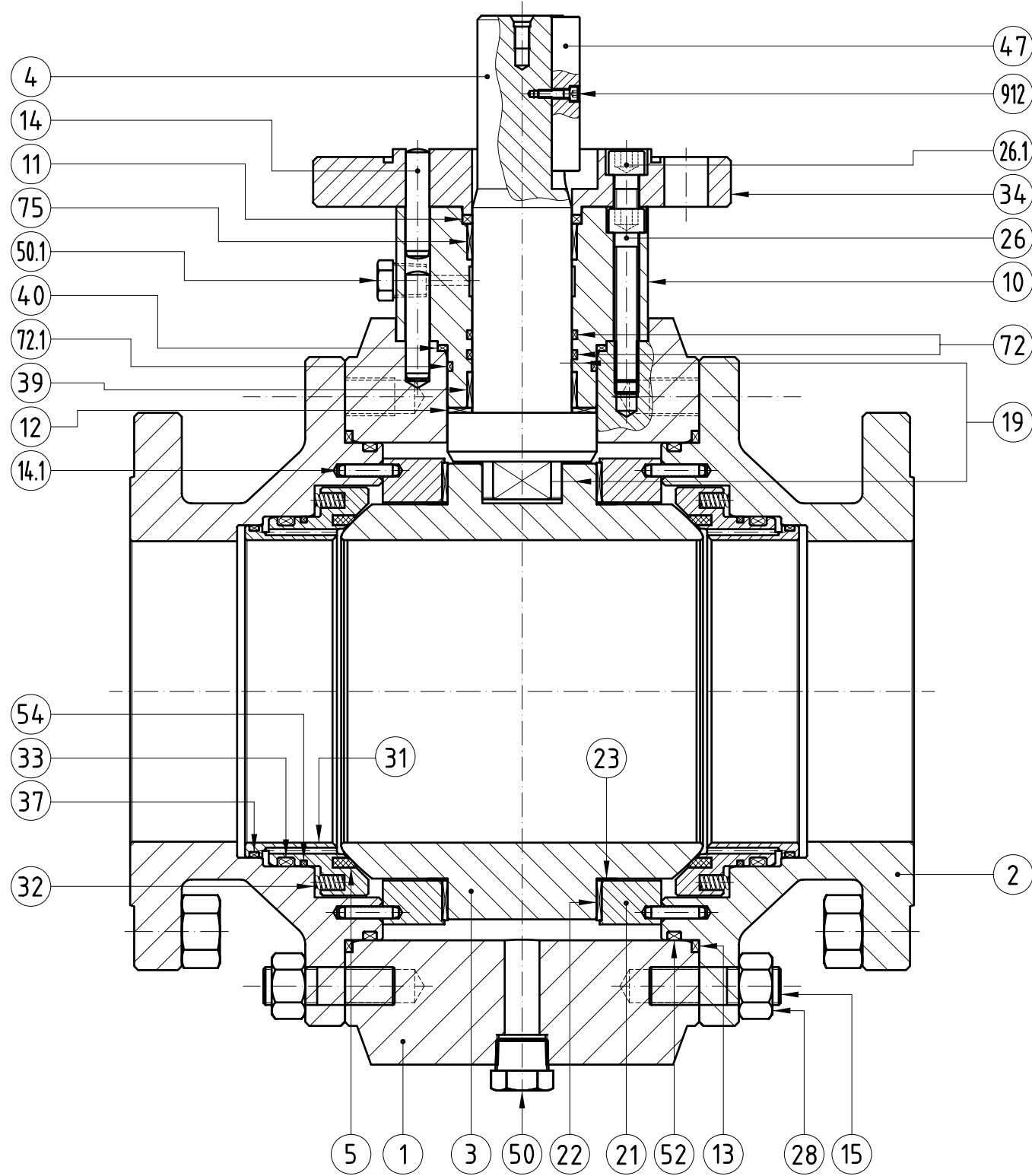
<u>DN</u>	<u>CLASS RATING</u>	<u>PN RATING</u>
150, 200, 250, 300	150# , 300#	10; 16; 25; 40



SGS Tecnos, S.A.
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08970 Sant Joan Despí (Barcelona)
Tel.: (34) 93 477 01 71 - 93 477 01 69
Fax.: (34) 93 373 15 00

Surveyor Javier Aranda García

DOCUMENTS ATTACHED:
Sheets reviewed and stamped
Accordingly.



(*) RECOMMENDED SPARE PARTS

POS.	QUAN.	DENOMINATION	MATERIAL	DRAWING N°.
	2	PLASTIC CAP	PLASTIC	
912	1	BOLT	8.8	DIN-912 M4x16
89	1	IDENTIFICATION PLATE	STAINLESS ST.	
75	1	STEM BUSHING	AISI-316 WITH INSIDE IN PTFE	s./a.- QGD1505518 (ø55xø50x18) *
72.1	1	"O" RING	FKM	ø69.44x3.53 *
72	2	"O" RING	FKM	ø49.21x3.53 *
54	2	SEAT CARRIER SEAL	GRAPHITE	JG169x3.15SI Rev.0 *
52	2	"O" RING	FKM	ø240.67x5.33 *
50.1	1	VENT PLUG	A-105	3/8" NPT
50	2	DRAIN PLUG	A-105	3/4" NPT
47	1	KEY	CARBON ST.	141477CH Rev.0
40	1	GASKET	GRAPHITE	JG75x3.7 Rev.0 *
39	1	STEM BUSHING	AISI-316 WITH INSIDE IN PTFE	s./a.- QGD1505518 (ø55xø50x18) *
37	2	"O" RING	FKM	ø158.34x3.53 *
34	1	UPPER CAP	A 350 Gr. LF2 Class-1	6060TB150FS Rev.0
33	2	SEAT SEAL	FKM	ø164.47x5.33 *
32	28	SPRING	INCONEL 750	PV23.0206.0606
31	2	SEAT CARRIER	A 182 F316	PV23.0206.0606
28	24	NUT	A 194 Gr. 2HM	UNC 3/4"-10 ANSI B18.2.2 Tabla 3
26.1	4	BOLT	12.9	s./a. - T912M12110129
26	4	BOLT	12.9	s./a. - T912M1275129
23	2	BEARING	PTFE	s./a.- JBS200T6260 (ø95xø75x1) *
22	2	TRUNNION BEARING	AISI-316 WITH INSIDE IN PTFE	s./a.- QGD1758020 (ø80xø75x20) *
21	2	BALL TRUNNION	A 350 Gr. LF2 Class-1 + E.N.P.	6060TB150GB Rev.0
19	2	ANTISTATIC DEVICE	STAINLESS ST.	
15	24	STUD	A 193 Gr. B7M	SU34662527 Rev.0
14.1	4	STOP PIN	CARBON ST.	PIU630M Rev.0
14	4	STOP PIN	CARBON ST.	s./a. - PIU1255A
13	2	BODY CONNECTOR SEAL	GRAPHITE	6060TB150JCL Rev.0 *
12	1	STEM THRUST SEAL	PTFE + 25% G.F.	6060TB150JE Rev.0 *
11	1	GLAND PACKING	GRAPHITE	6060TB150P Rev.0 *
10	1	GLAND	A 350 Gr. LF2 Class-1	6060TB150PP Rev.0
5	2	SEAT RING	RPTFE	PV23.0206.0606 *
4	1	STEM	A 479 Tp.410	6060TB150E Rev.0
3	1	BALL	A 351 Gr. CF8M	6060TB150B Rev.0
2	2	BODY CONNECTOR	A 350 Gr. LF2 Class-1	6015TB150L Rev.0
1	1	BODY	A 350 Gr. LF2 Class-1	6015TB150C Rev.0

Rev.	Modification	Date	Nam.	Approv.
0	First issue	10-07	J. RUBIO	

Dimensions	Drawn	10-07	J. RUBIO		JC Fábrica de válvulas, s.a. 08830 Sant Boi de Llobregat (Spain) Tel. + (34) 936 54 86 94 // Fax + (34) 936 54 86 95 e.mail: technical@jc-valves.com
m.m.	Checked	10-07	J.R.		
Weight:	Appr. Eng.				
Substitutes:	Scale:	GENERAL DRAWING Fig.6015 DN-6" Class-150			Ref.:
Substitutes by:	1:1				
					Drawing n°.: 6015TB150

This drawing is our property. It is strictly forbidden to use the drawing, to give it to third parties or to reproduce it totally or partially without our permission.

**Project: FIRE TEST FOR SOFT-SEATED
BALL VALVE**

Certificate No.: 259/08 - 9587

Client: J.C. FÁBRICA DE VÁLVULAS, S.A.

Office: Sant Joan Despí (BCN)

Client's Order No.: ---

Date: 16.04.08

Inspection dates

First: 16.04.08

Order Status: Complete

Final: 16.04.08

This certificate is issued to

Messrs. **J.C. FABRICA DE VÁLVULAS, S.A.**, upon their request that the undersigned Suveryor to this Society did attend their premises at their works in Sant Boi de Llobregat - Barcelona (Spain) for the purpose of witnessing the FIRE TEST in accordance with the requirements specified in ISO 10497:2004, on the following type of valve:

A manually operate soft seated ball valve of 6" bore 6", L.I.DV. symetric Valve as per fig. 6060 TB class 600#.

Body and Connector material A350 Gr.LF2, CLASS -1

Seats: SEE DRAWING 6060TB

Ball material: SEE DRAWING 6060TB

Stem: SEE DRAWING 6060TB

Marks:

- BODY : Col. 783621H
- CONNECTOR : Col. 176947

The test conducted on the valve previously subject to hydraulic pressure was as follows:

The valve in the closed position, filled with water under test pressure, was put in a box and exposed to flames with an environmental temperature in the region 750° C for a period of 30 minutes and established the leakage trough the seat and external to atmosphere during this period. The temperature was checked and recorded every two minutes, while leakages were determined using containers collecting the water leaked during burn period. Afterwards cool-down to 100° C. The valve seat and external hydrostatically tested to the appropriate test pressure and leakages recorded accordingly. Subsequently manually opened up under test pressure differential and finally the valve was fully hydrottested and leakages recorded.

All the following values were determined and recorded together with temperatures, times and pressures as shown on manufacturers Fire Safe Test Report nº C259/08

SGS Tecnos, S.A.

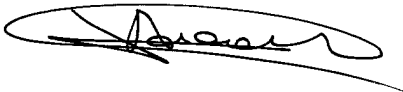
1. Through-valve leakage during burn period - SATISFACTORY.
2. External leakage during burn and cool-down period - SATISFACTORY.
3. Through-valve leakage during operational test - SATISFACTORY.
4. External leakage during operational test - SATISFACTORY.
5. Operability to full open position and external leakage - SATISFACTORY.

The valve was subject to a visual examination with satisfactory results and subsequently dismantled in order to verify that valves components comply with the drawing and parts list supplied by the manufacturer, while seat rings were found completely destroyed.

The manufacturers Fire Safe Test Report nº C259/08 and drawing 6060TBherewith attached were satisfactory checked and signed.

The above is considered in accordance with the mentioned specifications requirements, therefore the subject valve has satisfactory passed the prescribed fire test and can be also qualified as follows.

<u>DN</u>	<u>CLASS RATING</u>	<u>PN RATING</u>
150, 200, 250, 300	600# , 800#, 900#	100, 150

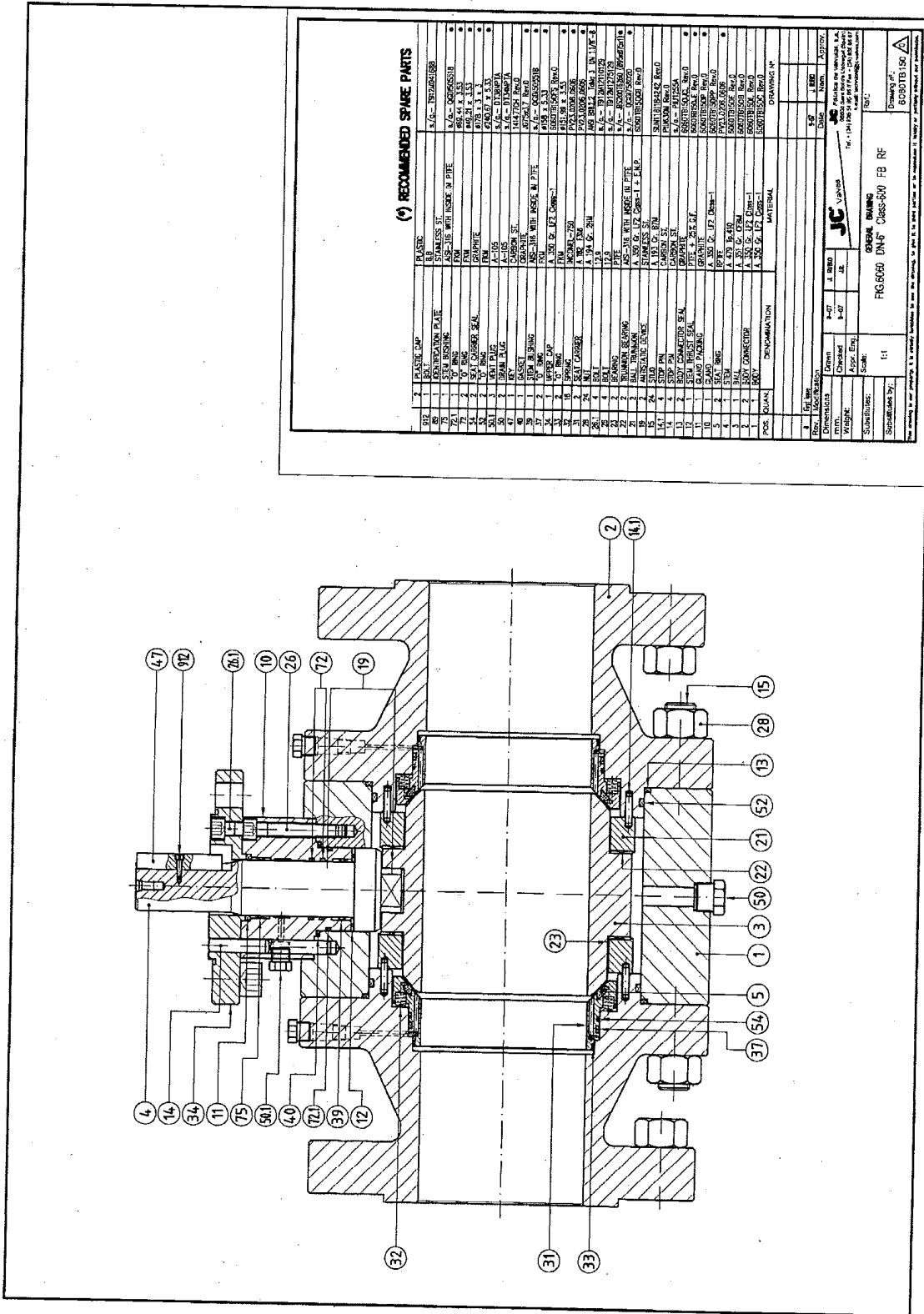


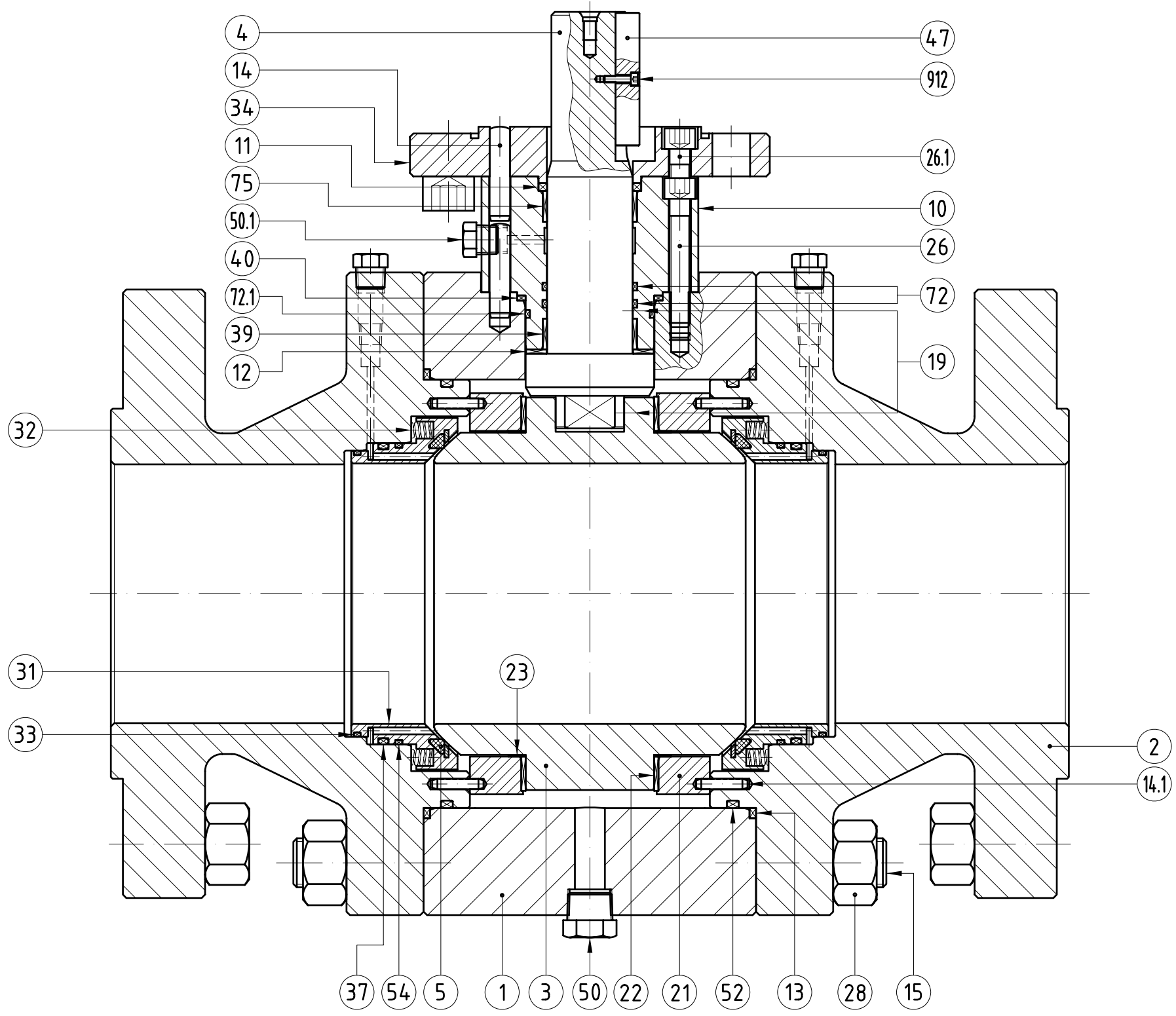
SGS Tecnos, S.A.

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Polígono Industrial Fontcenta
08870 Sant Joan Despí (Barcelona)
Tel.: (34) 93 477 01 71 - 93 477 01 69
Fax.: (34) 93 373 15 00

Surveyor Javier Aranda García

DOCUMENTS ATTACHED:
Sheets reviewed and stamped
Accordingly.





(*) RECOMMENDED SPARE PARTS

POS.	QUAN.	DENOMINATION	MATERIAL	DRAWING N°.
	2	PLASTIC CAP	PLASTIC	
912	1	BOLT	8.8	s./a.- T912M041688
89	1	IDENTIFICATION PLATE	STAINLESS ST.	
75	1	STEM BUSHING	AISI-316 WITH INSIDE IN PTFE	s./a.- QGD1505518 *
72.1	1	"O" RING	FKM	ø69.44 x 3.53 *
72	2	"O" RING	FKM	ø49.21 x 3.53 *
54	2	SEAT CARRIER SEAL	GRAPHITE	ø178 x 3 x 3 *
52	2	"O" RING	FKM	ø240.67 x 5.33 *
50.1	3	VENT PLUG	A-105	s./a.- DT38NPTA
50	2	DRAIN PLUG	A-105	s./a.- DT34NPTA
47	1	KEY	CARBON ST.	141477CH Rev.0
40	1	GASKET	GRAPHITE	JG75x3.7 Rev.0 *
39	1	STEM BUSHING	AISI-316 WITH INSIDE IN PTFE	s./a.- QGD1505518 *
37	2	"O" RING	FKM	ø158 x 5.33 *
34	1	UPPER CAP	A 350 Gr. LF2 Class-1	6060TB150FS Rev.0
33	2	"O" RING	FKM	ø151.99 x 3.53 *
32	16	SPRING	INCONEL-750	PV23.0206.0606 *
31	2	SEAT CARRIER	A 182 F316	PV23.0206.0606 *
28	24	NUT	A 194 Gr. 2HM	ANSI B18.2.2 Tabla 3 UN 1.1/8"-8
26.1	4	BOLT	12.9	s./a.- T912M12110129
26	4	BOLT	12.9	s./a.- T912M1275129
23	2	BEARING	PTFE	s./a.- ÷BS200T6260 (ø95xø75x1) *
22	2	TRUNNION BEARING	AISI-316 WITH INSIDE IN PTFE	s./a.- QGD1758020 *
21	2	BALL TRUNNION	A 350 Gr. LF2 Class-1 + E.N.P.	6060TB150GB Rev.0
19	2	ANTISTATIC DEVICE	STAINLESS ST.	
15	24	STUD	A 193 Gr. B7M	SUN1181184242 Rev.0
14.1	4	STOP PIN	CARBON ST.	PIU630M Rev.0
14	4	STOP PIN	CARBON ST.	s./a.- PIU1255A
13	2	BODY CONNECTOR SEAL	GRAPHITE	6060TB150JCL Rev.0 *
12	1	STEM THRUST SEAL	PTFE + 25% G.F.	6060TB150JE Rev.0 *
11	1	GLAND PACKING	GRAPHITE	6060TB150P Rev.0 *
10	1	GLAND	A 350 Gr. LF2 Class-1	6060TB150PP Rev.0
5	2	SEAT RING	RPTFE	PV23.0206.0606 *
4	1	STEM	A 479 Tp.410	6060TB150E Rev.0
3	1	BALL	A 351 Gr. CF8M	6060TB150B Rev.0
2	2	BODY CONNECTOR	A 350 Gr. LF2 Class-1	6060TB150L Rev.0
1	1	BODY	A 350 Gr. LF2 Class-1	6060TB150C Rev.0

POS.	QUAN.	DENOMINATION	MATERIAL	DRAWING N°.
0	1	First issue	9-07	J. RUBIO
Rev.	Modification	Date	Nam.	Approv.
Dimensions	Drawn	9-07	J. RUBIO	<p>JC Fábrica de válvulas, s.a. 08830 Sant Boi de Llobregat (Spain) Tel. + (34) 936 54 86 86 // Fax + (34) 936 86 87 e.mail: technical@jc-valves.com</p>
mm.	Checked	9-07	J.R.	
Weight:	Appr. Eng.			
Substitutes:	Scale:	GENERAL DRAWING		Ref.:
Substitutes by:	1:1	FIG.6060 DN-6" Class-600 FB RF		Drawing n°.: 6060TB150

This drawing is our property. It is strictly forbidden to use the drawing, to give it to third parties or to reproduce it totally or partially without our permission.

**Project: FIRE TEST FOR SOFT-SEATED
BALL VALVE**

Certificate No.: 457/08 - 9587

Client: J.C. FÁBRICA DE VÁLVULAS, S.A.

Office: Sant Joan Despí (BCN)

Client's Order No.: ---

Date: 06.06.08

Inspection dates

First: 06.06.08

Order Status: Complete

Final: 06.06.08

This certificate is issued to

Messrs. **J.C. FABRICA DE VÁLVULAS, S.A.**, upon their request that the undersigned Suveryor to this Society did attend their premises at their works in Sant Boi de Llobregat - Barcelona (Spain) for the purpose of witnessing the FIRE TEST in accordance with the requirements specified in ISO 10497:2004, on the following type of valve:

A manually operate soft seated ball valve of 8" bore 8", L.I.T. symetric Valve as per fig. 6015 TB class 150#.

Body and Connector material A350 Gr.LF2 Class -1

Seats: SEE DRAWING 6015TB200

Ball material: SEE DRAWING 6015TB200

Stem: SEE DRAWING 6015TB200

Marks:

- BODY : Col. 782160H
- CONNECTOR : Col. 176947

The test conducted on the valve previously subject to hydraulic pressure was as follows:

The valve in the closed position, filled with water under test pressure, was put in a box and exposed to flames with an environmental temperature in the region 750° C for a period of 30 minutes and established the leakage trough the seat and external to atmosphere during this period. The temperature was checked and recorded every two minutes, while leakages were determined using containers collecting the water leaked during burn period. Afterwards cool-down to 100° C. The valve seat and external hydrostatically tested to the appropriate test pressure and leakages recorded accordingly. Subsequently manually opened up under test pressure differential and finally the valve was fully hydrottested and leakages recorded.

All the following values were determined and recorded together with temperatures, times and pressures as shown on manufacturers Fire Safe Test Report nº C457/08

SGS Tecnos, S.A.

1. Through-valve leakage during burn period - SATISFACTORY.
2. External leakage during burn and cool-down period - SATISFACTORY.
3. Through-valve leakage during operational test - SATISFACTORY.
4. External leakage during operational test - SATISFACTORY.
5. Operability to full open position and external leakage - SATISFACTORY.

The valve was subject to a visual examination with satisfactory results and subsequently dismantled in order to verify that valves components comply with the drawing and parts list supplied by the manufacturer, while seat rings were found completely destroyed.

The manufacturers Fire Safe Test Report nº C457/08 and drawing 6015TB200 herewith attached were satisfactory checked and signed.

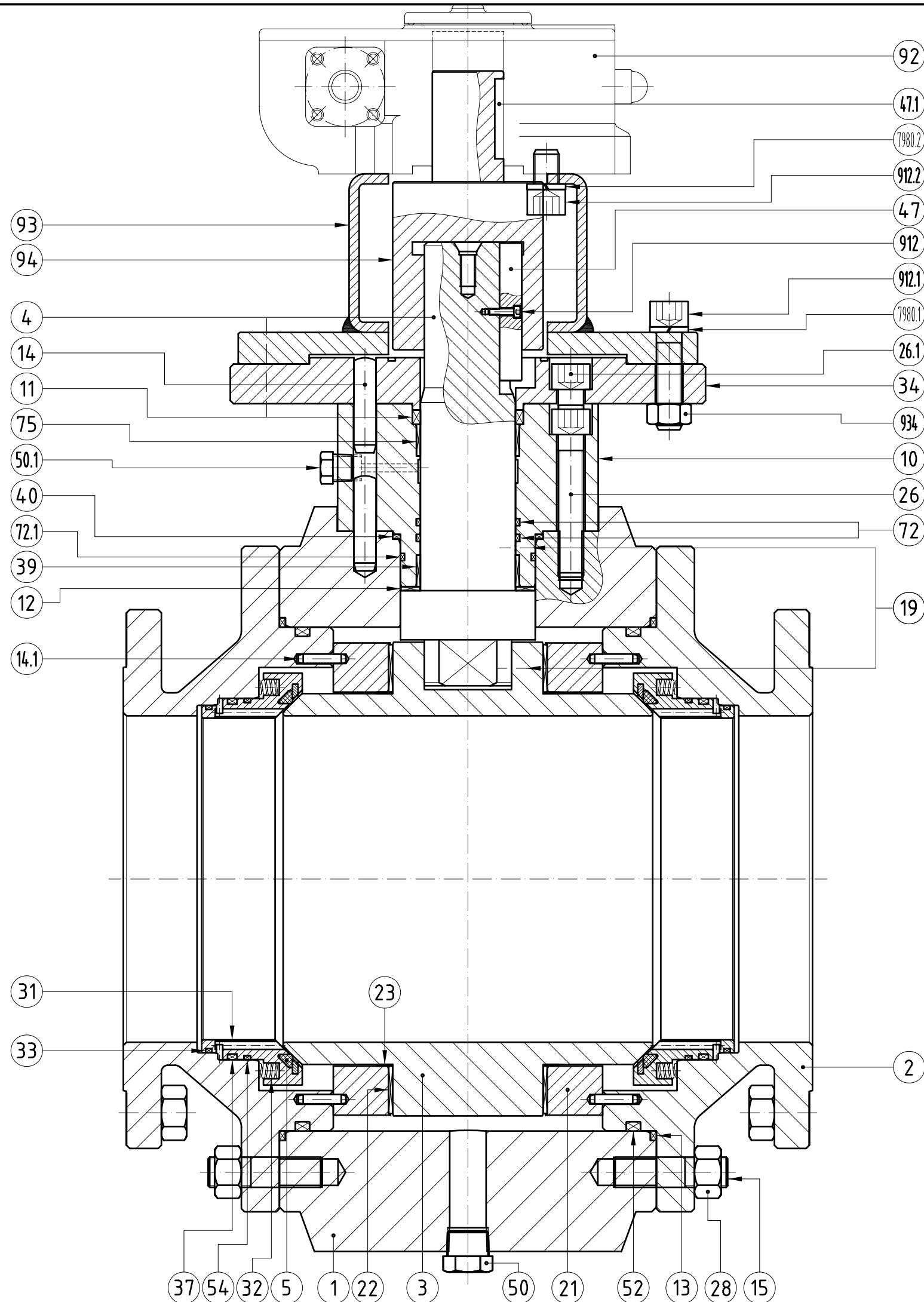
The above is considered in accordance with the mentioned specifications requirements, therefore the subject valve has satisfactory passed the prescribed fire test and can be also qualified as follows.

<u>DN</u>	<u>CLASS RATING</u>	<u>PN RATING</u>
200 and larger	150#, 300#	10, 16, 25, 40


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Surveyor Javier Aranda García

DOCUMENTS ATTACHED:
Sheets reviewed and stamped
Accordingly.



(*) RECOMMENDED SPARE PARTS

POS.	QUAN.	DENOMINATION	MATERIAL	DRAWING N°.
7980.2	4	SPRING LOCK WASHER	ZINC PLATED CARBON ST.	DIN-7980 M16
912.2	4	BOLT	8.8 ZINC PLATED	DIN-912 M16x25
7980.1	8	SPRING LOCK WASHER	ZINC PLATED CARBON ST.	DIN-7980 M16
934	8	NUT	.8	DIN-934 M16
	2	PLASTIC CAP	PLASTIC	
912.1	8	BOLT	8.8 ZINC PLATED	DIN-912 M16x65
912	1	BOLT	8.8	s./a.- T912M041688
94	1	COUPLING	CARBON ST.	ACD549D45176 Rev.0
93	1	MOUNTING BRACKET	CARBON ST.	ESF25F14120 Rev.0
92	1	WORM GEAR	--	REDWG008 (F14 / ø45)
89	1	IDENTIFICATION PLATE	STAINLESS ST.	
75	1	STEM BUSHING	AISI-316 WITH INSIDE IN PTFE	s./a.- QGD1606520 *
72.1	1	"O" RING	FKM	ø78.97 x 3.53 *
72	2	"O" RING	FKM	ø59.92 x 3.53 *
54	2	SEAT CARRIER SEAL	GRAPHITE	ø228 x 222 x 4 *
52	2	"O" RING	FKM	ø304.17 x 6.99 *
50.1	1	VENT PLUG	A 105	s./a.- DT38NPTA
50	2	DRAIN PLUG	A 105	s./a.- DT34NPTA
47.1	1	KEY	CARBON ST.	CHA14950A
47	1	KEY	CARBON ST.	141487CH Rev.0
40	1	GASKET	GRAPHITE	JG85x3.7 Rev.0 *
39	1	STEM BUSHING	AISI-316 WITH INSIDE IN PTFE	s./a.- QGD1606520 *
37	2	"O" RING	FKM	ø208.92 x 5.33 *
34	1	UPPER CAP	A 350 Gr. LF2 Class-1	6060TB200FS Rev.1
33	2	"O" RING	FKM	ø202.79 x 3.53 *
32	20	SPRING	INCONEL-750	PV17.0263.0807 *
31	2	SEAT CARRIER	A 182 F316	PV17.0263.0807 *
28	24	NUT	A 194 Gr. 2HM	ANSI B18.2.2 Tabla 3 UNC 3/4"-10
26.1	4	BOLT	12.9	s./a.- T912M16120129
26	4	BOLT	12.9	s./a.- T912M1690129
23	2	BEARING	PTFE	s./a.- JB14001615 (ø115xø95x1) *
22	2	TRUNNION BEARING	AISI-316 WITH INSIDE IN PTFE	s./a.- QGD19510030 *
21	2	BALL TRUNNION	A 479 Tp.316	6060TB200GB Rev.0
19	2	ANTISTATIC DEVICE	STAINLESS ST.	
15	24	STUD	A 193 Gr. B7M	SU34722727 Rev.0
14.1	4	STOP PIN	CARBON ST.	PIU630M Rev.0
14	4	STOP PIN	CARBON ST.	s./a.- PIU1460A
13	2	BODY CONNECTOR SEAL	GRAPHITE	6060TB200JCL Rev.0 *
12	1	STEM THRUST SEAL	PTFE + 25% G.F.	6060TB200JE Rev.0 *
11	1	GLAND PACKING	GRAPHITE	6060TB200P Rev.0 *
10	1	GLAND	A 350 Gr. LF2 Class-1	6060TB200PP Rev.0
5	2	SEAT RING	PTFE	PV17.0263.0807 *
4	1	STEM	A 479 Tp.316	6060TB200E Rev.0
3	1	BALL	A 479 Tp.316	6060TB200BPC Rev.0
2	2	BODY CONNECTOR	A 350 Gr. LF2 Class-1	6016TB200LPC Rev.0
1	1	BODY	A 350 Gr. LF2 Class-1	6015TB200C Rev.0

POS.	QUAN.	DENOMINATION	MATERIAL	DRAWING N°.
0	1	First issue		9-07 J. RUBIO
Rev.	Modification	Date	Nam.	Approv.
Dimensions	Drawn	9-07	J. RUBIO	
mm.	Checked	9-07	J.R.	
Weight:	Appr. Eng.			JC Fábrica de válvulas, s.a. 08830 Sant Bol de Llobregat (Spain) Tel. + (34) 936 54 86 86 // Fax + (34) 936 86 87 e.mail: technical@jc-valves.com
Substitutes:	Scale:	GENERAL DRAWING		Ref.:
Substitutes by:	1:1	FIG.6015 DN-8" Class-150 FB RF		Drawing n°: 6015TB200

This drawing is our property. It is strictly forbidden to use the drawing, to give it to third parties or to reproduce it totally or partially without our permission.

**Project: FIRE TEST FOR SOFT-SEATED
BALL VALVE**

Certificate No.: 002/09 - 9587

Client: J.C. FABRICA DE VÁLVULAS, S.A.

Office: Sant Joan Despí (BCN)

Client's Order No.: ---

Date: 08.01.09

Inspection dates

First: 08.01.09

Order Status: Complete

Final: 08.01.09

This certificate is issued to

Messrs. **J.C. FABRICA DE VÁLVULAS, S.A.**, upon their request that the undersigned Suveryor to this Society did attend their premises at their works in Sant Boi de Llobregat - Barcelona (Spain) for the purpose of witnessing the FIRE TEST in accordance with the requirements specified in ISO 10497:2004, on the following type of valve:

A manually operate soft seated ball valve of 8" bore 8", L.I. RPTFE symetric Valve as per fig. 6060TB class 600#.

Body and Connector material A350 Gr.LP2 Class -1

Seats: SEE DRAWING 6060TB 200

Ball material: SEE DRAWING 6060TB 200

Stem: SEE DRAWING 6060TB 200

Marks:

- BODY : Col. 784175H
- CONNECTOR : Col. 176947

The test conducted on the valve previously subject to hydraulic pressure was as follows:

The valve in the closed position, filled with water under test pressure, was put in a box and exposed to flames with an environmental temperature in the region 750° C for a period of 30 minutes and established the leakage trough the seat and external to atmosphere during this period. The temperature was checked and recorded every two minutes, while leakages were determined using containers collecting the water leaked during burn period. Afterwards cool-down to 100° C. The valve seat and external hydrostatically tested to the appropriate test pressure and leakages recorded accordingly. Subsequently manually opened up under test pressure differential and finally the valve was fully hydrottested and leakages recorded.

All the following values were determined and recorded together with temperatures, times and pressures as shown on manufacturers Fire Safe Test Report nº C002/09

SGS Tecnos, S.A.


1. Through-valve leakage during burn period - SATISFACTORY.
2. External leakage during burn and cool-down period - SATISFACTORY.
3. Through-valve leakage during operational test - SATISFACTORY.
4. External leakage during operational test - SATISFACTORY.
5. Operability to full open position and external leakage - SATISFACTORY.

The valve was subject to a visual examination with satisfactory results and subsequently dismantled in order to verify that valves components comply with the drawing and parts list supplied by the manufacturer, while seat rings were found completely destroyed.

The manufacturers Fire Safe Test Report nº C002/09 and drawing 6060TB 200 herewith attached were satisfactory checked and signed.

The above is considered in accordance with the mentioned specifications requirements, therefore the subject valve has satisfactory passed the prescribed fire test and can be also qualified as follows.

<u>DN</u>	<u>CLASS RATING</u>	<u>PN RATING</u>
200 and larger	600#, 800#, 900#	100, 150



Surveyor Javier Aranda García

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