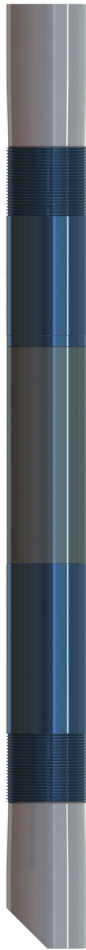


TECHNICAL INFORMATION:

PAT-4500-0135-3001 4.5 INCH 13.5 PPF



CASING O.D. (in)	4.5
CASING WT. (lb/ft)	13.5
CASING I.D. (in)	3.920
PATCH MAX. RUNNING O.D. (in)	3.658
PATCH I.D. AFTER SETTING (in)	2.992
PATCH DRIFT I.D. (in)	2.867
BURST HYDRAULIC RATING (psi)	9000
COLLAPSE HYDRAULIC RATING (psi)	9000

QTY.	DESCRIPTION	PART NUMBER	MATERIAL
	X-SPAN SYSTEM	PAT-4500-0135-3001	NOTED
4	ELASTOMER	GTX-4500-0135-6000	HSN
1	PIN ELEMENT	PAT-4500-0135-3210	13 CR
1	BOX ELEMENT	PAT-4500-0135-3410	13 CR
1	TOP SWAGE	PAT-4500-0135-3110	SUPER/HYPER CHROME
1	BOTTOM SWAGE	PAT-4500-0135-3310	SUPER/HYPER CHROME
1	72K SHEAR RING	PAT-4500-772	4140/4142
1	O-RING,VITON	OOO-V569-151	VITON
1	O-RING,VITON	OOO-V569-152	VITON
1	10 FT. SECTION	GTX-4500-110	L-80
		GTX-4500-110C	13CR
	5 FT. SECTION	GTX-4500-105	L-80
		GTX-4500-105C	13CR
	20 FT. SECTION	GTX-4500-120	L-80
		GTX-4500-120C	13CR

MINIMUM EQUIPMENT REQUIRED FOR A FULL SYSTEM CONSISTS OF ONE SHORT ASSEMBLY AND ONE SECTION.

PRODUCT OFFERINGS:

The Owen X-SPAN® System is an economical, proven, durable and dependable sealing system for the isolation of perforations, splits, corrosion or leaks in all types of tubulars and conditions. This system can utilize a multitude of deployment methods in all types of well bores. The large bore assures easy passage of service tools including bridge plugs, drop balls, seal bore assemblies, logging tools and perforating systems. The minimal surface equipment required for deploying the patch and rig less intervention results in significant savings for the operator.

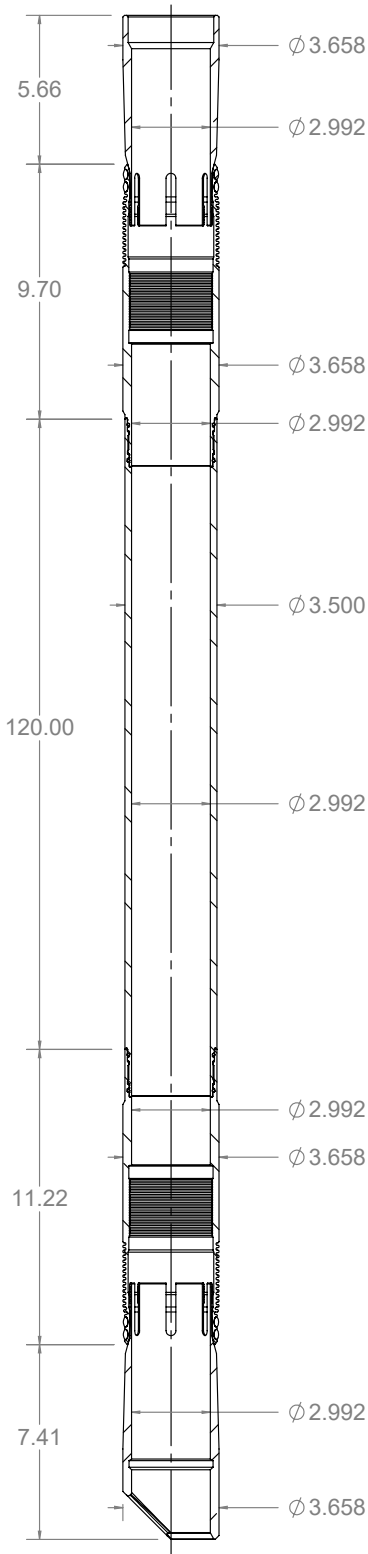
BENEFITS/CAPABILITIES:

The X-SPAN® System Offers:

- A proven, durable and dependable seal
- Deployment on electric wireline, tubing, drill pipe or coil tubing in vertical, deviated or horizontal or geothermal well bores
- An economical and reliable solution for a broad range of applications
- A large bore for easy passage of service tools
- Minimal surface equipment required for deployment

TECHNICAL INFORMATION:

PAT-4500-0135-3001 4.5 INCH 13.5 PPF



CASING O.D. (in)	4.5
CASING WT. (lb/ft)	13.5
CASING I.D. (in)	3.92
PATCH MAX. RUNNING O.D. (in)	3.658
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BURST HYDRAULIC RATING (psi)	9000
COLLAPSE HYDRAULIC RATING (psi)	9000

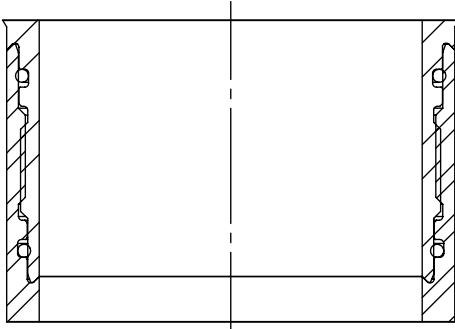
QTY.	DESCRIPTION	PART NUMBER	MATERIAL
1	ELASTOMER	GTX-4500-0135-6000	HSN
1	PIN ELEMENT	PAT-4500-0135-3210	13 Cr L-80
1	BOX ELEMENT	PAT-4500-0135-3410	13 Cr L-80
1	TOP SWAGE	PAT-4500-0135-3110	SUPER/HYPER CHROME
1	BOTTOM SWAGE	PAT-4500-0135-3310	SUPER/HYPER CHROME
N+1	O-RING,VITON	OOO-V569-152	VITON
N+1	O-RING,VITON	OOO-V569-151	VITON
1	72K SHEAR RING	PAT-4500-772	4140 / 4142
1	SET SCREW 1/4 INCH X 20 TPI, 5/16 INCH	PUR-0501-030	ALLOY
N	10 FT. SECTION	GTX-4500-110	L-80
1	SLEEVE NUT	SET-3250-420	4140/4142
1	SETTING SLEEVE LOCK NUT	SET-3250-421	4140/4142
1	SETTING SLEEVE ASSEMBLY	SET-3250-422	4140/4142
1	QUICK CHANGE ROD	SET-3250-130	4130/4140
1	QUICK CHANGE NUT	SET-3250-131	4130/4140
1	TOP ADAPTER ROD	SET-3250-132	4130/4140
N+1	ROD TANDEM CONNECTOR	SET-3250-133	4140/4130
N	10 FT. ROD	SET-3250-134	4140 / 4130
OPT.	5FT. ROD	SET-3250-135	4140/4130
1	BOTTOM ROD EXTENDED	SET-3250-136L	4140/4130
1	COLLET ASSEMBLY	SET-3250-747	SEE TABLE
1	END SUB	SET-3250-745	4130 / 4140 / 4142
1	COLLET	SET-3250-746	4130/4140/4142
1	COLLET SUPPORT	SET-3250-446	4140/4142
N	ROD SUPPORT	SET-3250-142A	4130/4140/4142

MINIMUM EQUIPMENT REQUIRED FOR 10 FT. SYSTEM



SECTION SPECIFICATIONS:

PAT-4500-0135-3001 4.5 INCH 13.5 PPF



PART NUMBER	LENGTH (INCHES)	OAL (INCHES)	WEIGHT (LBS.)	MATERIAL
GTX-4500-102	24.00	25.82	17.22	L-80
GTX-4500-102C	24.00	25.82	17.22	13 Cr L80
GTX-4500-105	60.00	61.82	43.16	L-80
GTX-4500-105C	60.00	61.82	43.16	13 Cr L80
GTX-4500-110	120.00	121.82	86.40	L-80
GTX-4500-110C	120.00	121.82	86.40	13 Cr L80
GTX-4500-120	240.00	241.82	172.86	L-80
GTX-4500-120C	240.00	241.82	172.86	13 Cr L80

PATCH TENSILE RATING	43,000 LBF.
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SYSTEM WEIGHTS

	WEIGHT (LBS.)
PAT-4500-0135-3001	29.29
10 FT PATCH RUNNING WEIGHT	226.92
EA. ADDITIONAL 10 FT. LGTH ADD	148

SETTING TOOL OPTIONS:

HYDRAULIC			WEIGHT (LBS)
3-1/8 INCH HYDRAULIC	SET-3125-010		300
3-1/4 INCH MULTISTAGE SETTING TOOL INTERNALLY STROKED (HYDRAULIC)	SET-3250-410		287
	SCREEN SUB	TT0798-288A	
	CIRCULATION SUB	SET-2875-010	
	DUMP SUB	OT0710-288B-000	

PYROTECHNIC			WEIGHT (LBS)
3-1/4 INCH MULTISTAGE SETTING TOOL	SET-3250-000		206
3-1/4 INCH MULTISTAGE SETTING TOOL INTERNALLY STROKED	SET-3250-400		200
	POWER CHARGE	OPC-3250-000-MS	
	IGNITER	DET-5306-074	
		DET-5306-008	