

SUPERIOR HYDRAULIC FISHING JARS

Overview

The Superior Hydraulic Jar is a straight pull, up only, jarring tool that utilizes a special valve section to meter oil from one side of the piston to the other side. This allows for controlled jarring action during stuck fish recovery. The straight pull load applied by the operator controls the intensity of the jarring blow. The downhole jarring blow is infinitely adjustable without any rig floor adjustments necessary prior to the run. Impact of each blow can be varied by simply changing the pull load.

The Superior Hydraulic Jar is well-suited for milling and washover operations due to its large mandrel design. Since the Jar will not interfere with test equipment, it is also ideal to use for drill stem testing. The seals used in the Superior Hydraulic Jar can handle higher pressures than those normally encountered in drill stem testing.

Among its many uses, the Superior Hydraulic Jar is also ideal for jarring and free-ing open-hole or hook-wall packers that have become stuck. With comparatively moderate pull, the Superior Hydraulic Jar can also deliver sufficient impact to break a core.

Construction

The Jar's operating chambers are sealed and isolated from each other to prevent contamination of the metering section of the Jar and the surrounding well areas. Superior Hydraulic Jars are hydrostatically pressure balanced and provide maximum inside diameters for passage of wireline tools.

Assembly

The Superior Hydraulic Jar is shipped in the closed (cocked) position. The Jar should not be left suspended from the elevator in this position, especially with any weight suspended below it, as the Jar may accidentally fire and cause rig damage or bodily harm.

The Superior Hydraulic Jar should be carefully opened and assembled in the string below the concentrated mass such as drill collars and heavyweight drill pipe.

Operation

For maximum effectiveness, it is recommended that the Superior Hydraulic Jar be run in combination with a Logan Superior Energizer.

The Superior Hydraulic Jar should be carefully examined prior to use to ensure it has been properly assembled and filled with jar oil. The tool should be tested in a jar tester prior to field use. All connections should be checked to ensure that they have been tightened to the proper torque.

At no time during the pull cycle should the maximum load be exceeded. (See Strength Data Charts on pages 141 – 142 for pull loads.) It is recommended that the operator use a low initial pull load — 30% to 50% of the maximum load — so the effects of the jarring action can be reviewed before the jarring load is increased.

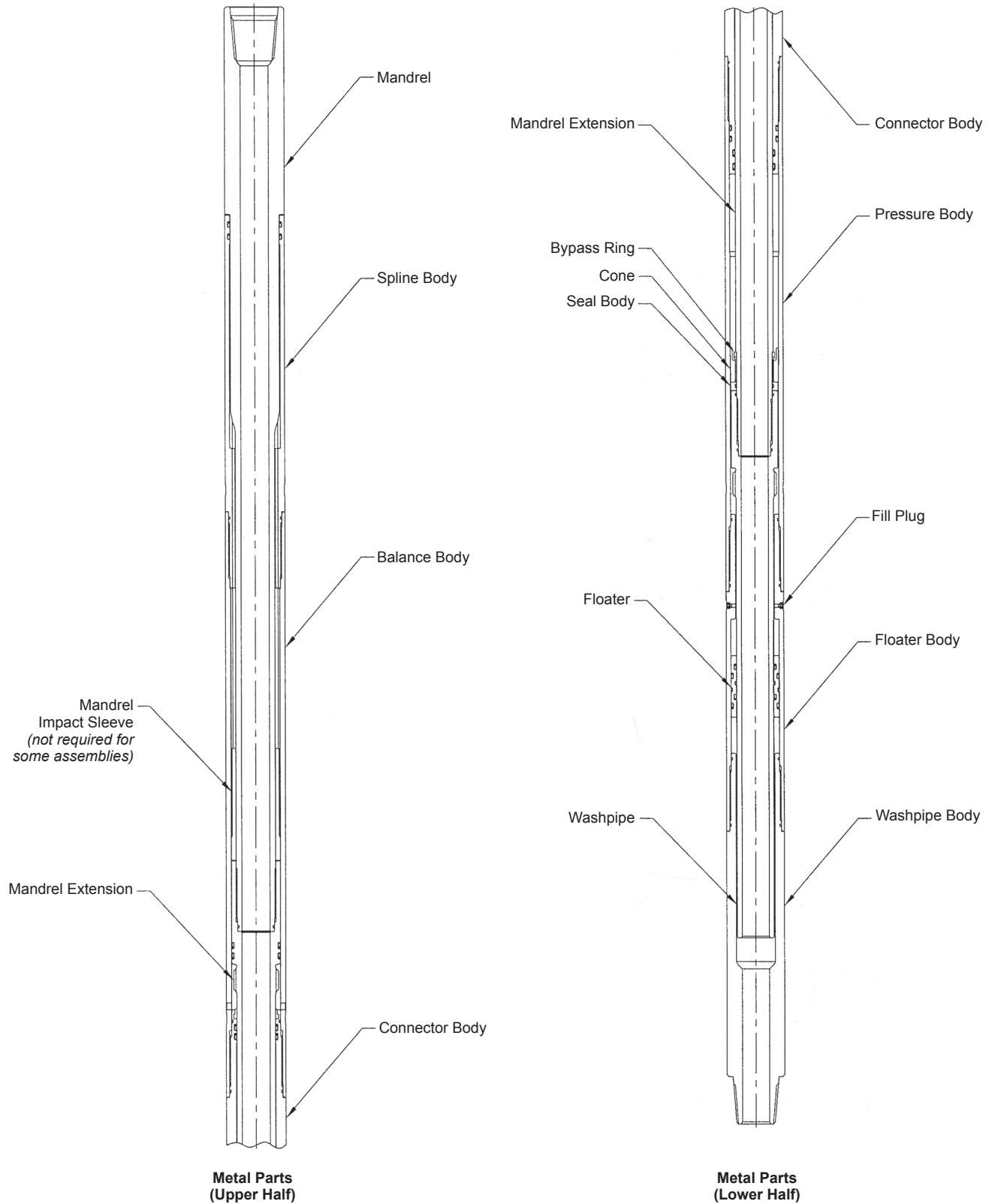
When ordering, please specify:

- (1) Name and number of assembly or part
- (2) Casing O.D.
- (3) Size and type of connection

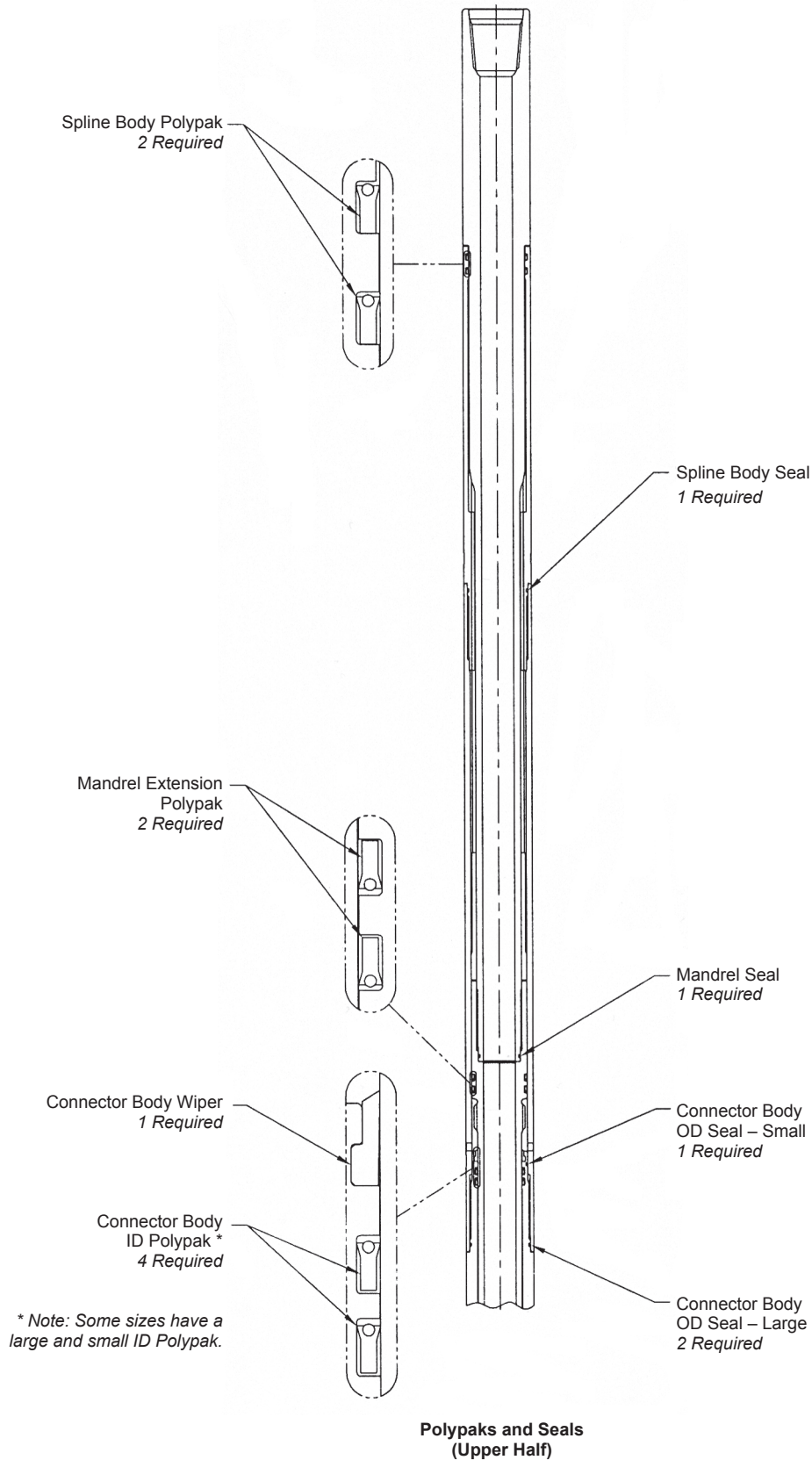


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pipe & supply

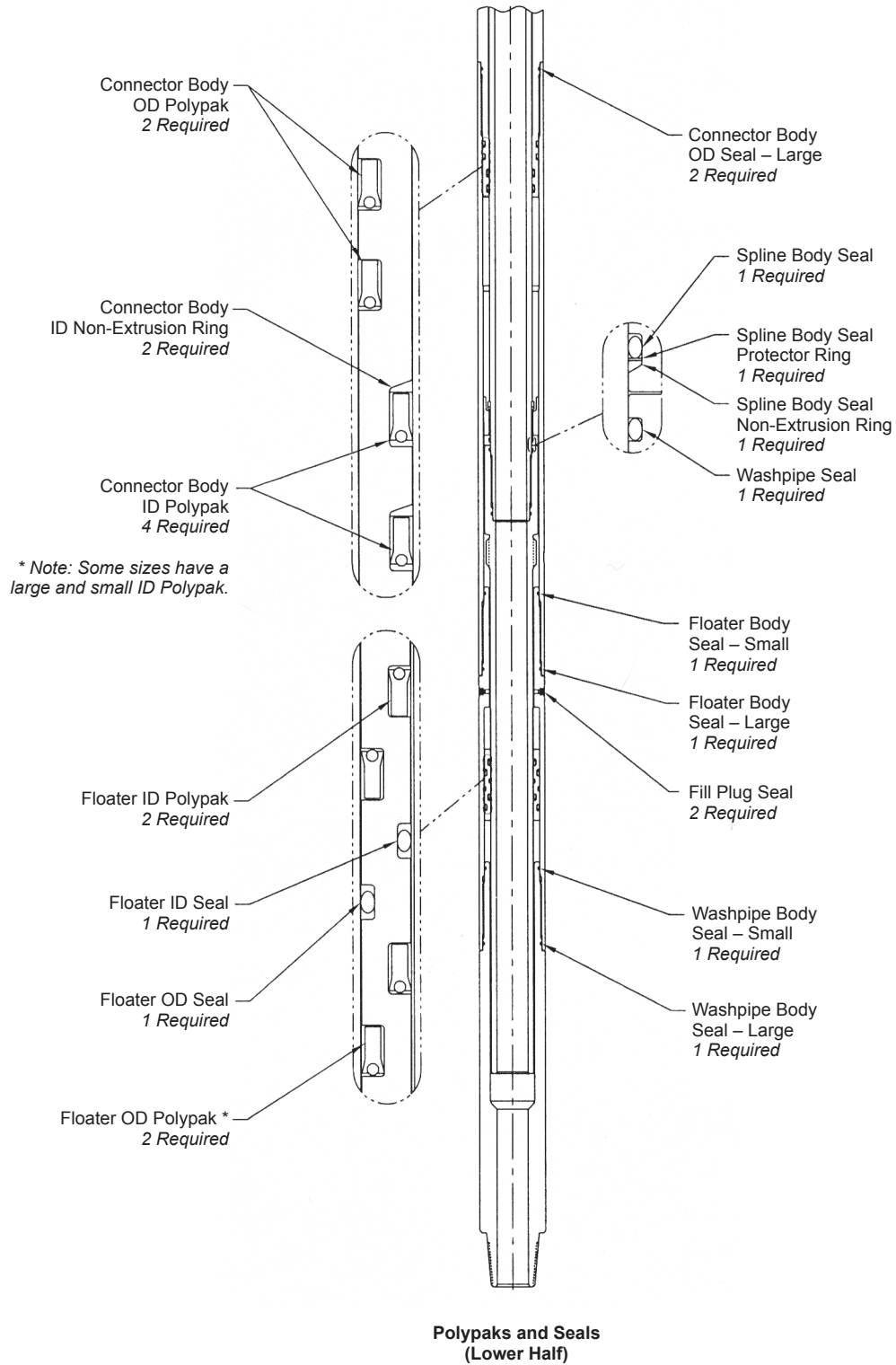
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TOOL JOINT CONNECTION	2-3/8	2-3/8	2-7/8 PAC	2-3/8	2-7/8	2-3/8	2-7/8
	API EUE	API Reg		API IF	API Reg	API EUE	API IF
OUTSIDE DIAMETER — INCHES	3-1/16	3-1/8	3-1/8	3-3/4	3-3/4	3-3/4	4-1/4
INSIDE DIAMETER — INCHES	1-1/2	1	1-1/2	1-1/2	1-1/4	1-7/8	2
COMPLETE ASSEMBLY	611-306	611-312	611-313	611-375	611-377	611-376	611-425
COMPONENTS							
MANDREL	BD15	BD10	BD15	BD11	BD11	BD18	BD16
MANDREL SEAL	...	...	...	568-225	568-225	...	568-229
No. Req'd	...	...	...	1	1	...	1
MANDREL EXTENSION	BD25	BD20	BD25	BD21	BD21	BD28	BD26
MANDREL	568-225	568-224	568-225	...	...	568-229	...
EXTENSION SEAL	No. Req'd	1	1	...	...	1	...
MANDREL	BD205-2	BD205-2	BD205-2	BD201-2	BD201-2	AQ29003	BX144-3
EXTENSION POLYPAK	No. Req'd	1	2	2	2	2	2
MANDREL	...	...	...	...	...	...	...
EXTENSION WIPER	No. Req'd	...	...	...	...	...	...
MANDREL	BD35	BD30	BD35	...	...	...	...
IMPACT SLEEVE							
SPLINE BODY	BD45	BD40	BD45	BD41	BD41	BD48	BD46
SPLINE BODY SEAL	568-230	568-230	568-230	568-234	568-234	568-235	568-238
No. Req'd.	1	1	1	1	1	1	1
SPLINE BODY	BD205-1	BD205-1	BD205-1	BD202-3	BD202-3	BX144-3	BD202-2
POLYPAK	No. Req'd	2	2	2	2	2	2
BALANCE BODY	BD55	BD50	BD55	BD51	BD51	BD58	BD56
CONNECTOR BODY	BD65	BD60	BD65	BD61	BD61	BD68	BD66
CONNECTOR BODY	568-230	568-230	568-230	568-234	568-234	568-235	568-238
SEAL (LARGE)	No. Req'd	2	2	2	2	2	2
CONNECTOR BODY	568-228	568-228	568-228	568-232	568-232	568-233	568-236
SEAL (SMALL)	No. Req'd	2	2	1	1	1	1
CONNECTOR	...	...	...	BD71	BD71	BD78	BD76
BODY WIPER							
CONNECTOR BODY ID	BD205-3	BD200-3	BD205-3	BD201-3	BD201-3	BD208-3	AQ29003
POLYPAK (SMALL)	No. Req'd	3	3	4	4	4	4
CONNECTOR BODY ID	...	...	...	...	...	...	...
POLYPAK (LARGE)	No. Req'd	...	...	...	...	...	...
CONNECTOR BODY	...	...	...	AQ29003	AQ29003	AQ29003	BX144-3
OD POLYPAK	No. Req'd	...	...	2	2	2	2
CONNECTOR BODY	8-228	8-228	8-228	L375-34	L375-34	L375-36	...
SEAL PROTECTOR RING	No. Req'd	2	2	2	2	2	...
CONNECTOR BODY ID	L365-32	L365-30	L365-32	BD231	BD231	L365-36	BD236
NON-EXTRUSION RING	No. Req'd	1	2	2	2	2	2
CONNECTOR BODY ID	...	AG1000-30.13	**	**	**	**	**
SETTING TOOL							
CONNECTOR BODY OD	...	BD240	...	...	...	...	...
NON-EXTRUSION RING	No. Req'd	1	...	...	...	...	...
(LARGE)	...	...	...	...	...	...	...
CONNECTOR BODY OD	L366-33.5	BD250	L366-33.5	...	...	...	...
NON-EXTRUSION RING	No. Req'd	2	1	2	...	...	...
(SMALL)	...	...	...	...	...	...	...
PRESSURE BODY	BD-85	BD80	BD85	BD81	BD81	BD88	BD86

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TOOL JOINT CONNECTION		2-3/8 API EUE	2-3/8 API Reg	2-7/8 PAC	2-3/8 API IF	2-7/8 API Reg	2-3/8 API EUE	2-7/8 API IF
OUTSIDE DIAMETER — INCHES		3-1/16	3-1/8	3-1/8	3-3/4	3-3/4	3-3/4	4-1/4
INSIDE DIAMETER — INCHES		1-1/2	1	1-1/2	1-1/2	1-1/4	1-7/8	2
COMPLETE ASSEMBLY		611-306	611-312	611-313	611-375	611-377	611-376	611-425
COMPONENTS								
FLOATER BODY		BD95	BD90	BD95	BD91	BD91	BD98	BD96
FLOATER BODY		568-230	568-230	568-230	568-234	568-234	568-235	568-238
SEAL (LARGE)	No. Req'd 1		1	1	1	1	1	1
FLOATER BODY		568-228	568-228	568-228	568-232	568-232	568-233	568-236
SEAL (SMALL)	No. Req'd 1		1	1	1	1	1	1
FLOATER BODY		AG10002	AG10002	AG10002	AG10002	AG10002	AG10002	AG10002
FILL PLUG	No. Req'd 2		2	2	2	2	2	2
FLOATER BODY		568-006	568-006	568-006	568-006	568-006	568-006	568-006
FILL PLUG SEAL	No. Req'd 2		2	2	2	2	2	2
FLOATER		BD115	BD110	BD115	BD111	BD111	BD118	BD116
FLOATER SEAL		568-228	568-228	568-228	568-232	568-232	568-233	568-236
(LARGE)	No. Req'd 3		1	3	1	1	1	
FLOATER SEAL		568-226	568-224	568-226	568-228	568-230	568-230	568-232
(SMALL)	No. Req'd 3		1	3	1	1	1	1
FLOATER OD			BD200-4	...	BD201-2	BD201-2	AQ29003	BX144-3
POLYPAK	No. Req'd ...		2	...	2	2	2	2
FLOATER ID			BD200-3	...	BD201-3	BD201-3	BD208-3	AQ29003
POLYPAK	No. Req'd ...		2	...	2	2	2	2
FLOATER OD			...	...	8-232	8-232	...	...
PARBAK RING	No. Req'd ...		...	...	1	1	...	...
FLOATER ID		8-226	...	8-226	8-228	8-228	...	...
PARBAK RING	No. Req'd 3		...	3	1	1	...	...
FLOATER		BD295	BD290	BD295	BD291	BD291	BD298	BD296
POSITIONING TOOL								
SEAL BODY		BD125	BD120	BD125	BD121	BD121	BD128	BD126
SEAL BODY SEAL		568-225	568-130	568-225	568-227	568-227	568-143	568-231
	No. Req'd 1		1	1	1	1	1	1
NON-EXTRUSION		BD265-001	BD260	L365-30.25	L370-5	L370-5	BD268	L370-9
RING	No. Req'd 1		1	1	1	1	1	1
SEAL		BD285-001	8-130	L375-30.25	8-227	8-227	8-143	L376-9
PROTECTOR RING	No. Req'd 1		1	1	1	1	1	1
SETTING TOOL		AG1000-30.25	AG1000-29.25	AG1000-30.25	AG1000-33.5	AG1000-33.5	AG1000-35.5	AG1000-37
CONE		BD135	BD130	BD135	BD131	BD131	BD138	BD136
BYPASS RING		BD155	BD150	BD155	BD151	BD151	BD158	BD156
WASHPIPE		BD165	BD160	BD165	BD161	BD161	BD168	BD166
WASHPIPE			568-130	...	568-227	568-227	568-143	568-231
SEAL (LARGE)	No. Req'd ...		1	...	1	1	1	1
WASHPIPE		568-224	568-221	568-224	568-225	568-225	568-228	568-229
SEAL (SMALL)	No. Req'd 1		1	1	1	1	1	1
WASHPIPE BODY		BD175	BD170	BD175	BD171	BD171	BD178	BD176
WASHPIPE BODY		568-230	568-230	568-230	568-234	568-234	568-235	568-238
SEAL (LARGE)	No. Req'd 1		1	1	1	1	1	1
WASHPIPE BODY		568-228	568-228	568-228	568-232	568-232	568-233	568-236
SEAL (SMALL)	No. Req'd 1		1	1	1	1	1	1

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TOOL JOINT CONNECTION	2-3/8 API EUE	2-3/8 API Reg	2-7/8 PAC	2-3/8 API IF	2-7/8 API Reg	2-3/8 API EUE	2-7/8 API IF
OUTSIDE DIAMETER — INCHES	3-1/16	3-1/8	3-1/8	3-3/4	3-3/4	3-3/4	4-1/4
INSIDE DIAMETER — INCHES	1-1/2	1	1-1/2	1-1/2	1-1/4	1-7/8	2
COMPLETE ASSEMBLY	611-306	611-312	611-313	611-375	611-377	611-376	611-425

COMPONENTS

REDRESS KITS *	BD185	BD180	BD185	BD181	BD181	BD188	BD186
COMPLETE O-RING KIT	BD195	BD190	BD195	BD191	BD191	BD198	BD196
COMPLETE POLYPAK KIT	BD205	BD200	BD205	BD201	BD201	BD208	BD206

Consists of:

SPLINE BODY		BD205-1	BD205-1	BD205-1	BD202-3	BD202-3	BX144-3	BD202-2
POLYPAK	No. Req'd	2	2	2	2	2	2	2
MANDREL EXTENSION		BD205-2	BD205-2	BD205-2	BD201-2	BD201-2	AQ29003	BX144-3
POLYPAK	No. Req'd	1	2	1	2	2	2	2
CONNECTOR BODY		BD205-3	BD200-3	BD205-3	BD201-3	BD201-3	BD208-3	AQ29003
ID POLYPAK (SMALL)	No. Req'd	3	3	3	4	4	4	4
CONNECTOR BODY ID		...	...	...	...	...	...	...
POLYPAK (LARGE)	No. Req'd	...	...	...	...	...	...	...
CONNECTOR BODY OD POLYPAK	No. Req'd	...	...	...	AQ29003	AQ29003	AQ29003	BX144-3
FLOATER OD		...	BD200-4	...	BD201-2	BD201-2	AQ29003	BX144-3
POLYPAK	No. Req'd	...	2	...	2	2	2	2
FLOATER ID		...	BD200-3	...	BD201-3	BD201-3	BD208-3	AQ29003
POLYPAK	No. Req'd	...	2	...	2	2	2	2
MANDREL EXTENSION ASSEMBLY SLEEVE †	No. Req'd	BD205-6	BD200-6	BD205-6	BD201-6	BD201-6	BD208-6	BD206-6
		1	1	1	1	1	1	1

JAR LUBE		49842-A	49842-B	49842-C	49842-D
	Bowen No.	49842-A	49842-B	49842-C	49842-D
		1 Gallon	5 Gallons	20 Gallons	55 Gallons

* Redress Kits include O-Ring Packing Sets, Polypak Kits, and Connector Body Wipers

** To be advised by engineering

† Mandrel Extension Assembly Sleeve is not included in the Redress Kit. Must be purchased separately.

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TOOL JOINT CONNECTION		2-7/8	3-1/2	4-1/2	6-5/8
		API EUE	API IF	API IF	API Reg
OUTSIDE DIAMETER — INCHES		4-1/2	4-3/4	6-1/4	7-3/4
INSIDE DIAMETER — INCHES		2-3/8	2-1/4	2-1/4	3-1/16
COMPLETE ASSEMBLY		611-450	611-475	611-625	611-775
COMPONENTS					
MANDREL		BD19	BD12	BD13	BD14
MANDREL SEAL		568-238	568-232	568-236	568-348
	No. Req'd	1	1	1	1
MANDREL EXTENSION		BD29	BD22	BD23	BD24
MANDREL		...	...	568-234	568-341
EXTENSION SEAL	No. Req'd	...	...	1	1
MANDREL		BD209-2	BD202-2	BD203-2	BD204-2
EXTENSION POLYPAK	No. Req'd	2	2	2	2
MANDREL		...	...	BD223	BD224
EXTENSION WIPER	No. Req'd	...	...	...	1
MANDREL			BD32	...	...
IMPACT SLEEVE					
SPLINE BODY		BD49	BD42	BD43	BD44
SPLINE BODY SEAL		568-240	568-242	568-250	568-362
	No. Req'd	1	1	1	1
SPLINE BODY		BD209-1	BD202-1	BD203-1	BD204-1
POLYPAK	No. Req'd	2	2	2	2
BALANCE BODY		BD59	BD52	BD53	BD54
CONNECTOR BODY		BD69	BD62	BD63	BD64
CONNECTOR BODY		568-240	568-242	568-253	568-362
SEAL (LARGE)	No. Req'd	2	2	2	2
CONNECTOR BODY		568-239	568-239	568-250	568-361
SEAL (SMALL)	No. Req'd	1	1	1	1
CONNECTOR		BD79	BD72	BD73	BD74
BODY WIPER					
CONNECTOR BODY		BX144-3	BD202-3	BD203-3	...
ID POLYPAK (SMALL)	No. Req'd	4	2	4	...
CONNECTOR BODY		...	BD202-4	...	BD204-3
ID POLYPAK (LARGE)	No. Req'd	...	2	...	4
CONNECTOR BODY		BD209-4	BD202-5	BD203-5	BD204-2
OD POLYPAK	No. Req'd	2	2	2	2
CONNECTOR		L375-41	...	...	BD274
BODY SEAL	No. Req'd	2	...	2	2
PROTECTOR RING					
CONNECTOR BODY ID		L365-41	BD232	BD233	BD234
NON-EXTRUSION RING	No. Req'd	2	2	2	2
CONNECTOR BODY					
ID NON-EXTRUSION			AG1000-40	**	AG1000-52
RING SETTING TOOL					
CONNECTOR BODY		...	...	...	...
OD NON-EXTRUSION	No. Req'd	...	...	...	...
RING (LARGE)					
CONNECTOR BODY		...	...	...	...
OD NON-EXTRUSION	No. Req'd	...	...	...	...
RING (SMALL)					
PRESSURE BODY		BD89	BD82	BD83	BD84
FLOATER BODY		BD99	BD92	BD93	BD94

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TOOL JOINT CONNECTION		2-7/8 API EUE	3-1/2 API IF	4-1/2 API IF	6-5/8 API REG
OUTSIDE DIAMETER — INCHES		4-1/2	4-3/4	6-1/4	7-3/4
INSIDE DIAMETER — INCHES		2-3/8	2-1/4	2-1/4	3-1/16
COMPLETE ASSEMBLY		611-450	611-475	611-625	611-775
COMPONENTS					
FLOATER BODY		568-240	568-242	568-253	568-362
SEAL (LARGE)	No. Req'd	1	1	1	1
FLOATER BODY		568-238	568-239	568-250	568-361
SEAL (SMALL)	No. Req'd	1	1	1	1
FLOATER BODY		AG10002	AG10002	AG10002	AG10002
FILL PLUG	No. Req'd	2	2	2	2
FLOATER BODY		568-006	568-006	568-006	568-006
FILL PLUG SEAL	No. Req'd	2	2	2	2
FLOATER		BD119	BD112	BD113	BD114
FLOATER SEAL (LARGE)	568-238 No. Req'd	2	568-341 2	568-351 2	568-361 2
FLOATER SEAL (SMALL)	568-235 No. Req'd	1	568-337 1	268-343 1	568-349 1
FLOATER OD POLYPAK		BD209-2 No. Req'd	BD202-2 2	BD203-2 2	BD204-4 2
FLOATER ID POLYPAK		BX144-3 No. Req'd	BD202-3 2	BD203-3 2	BD204-3 2
FLOATER OD PARBAK RING		... No. Req'd			
FLOATER ID PARBAK RING		... No. Req'd			
FLOATER		BD299	BD292	BD293	BD294
POSITIONING TOOL					
SEAL BODY		BD129	BD122	BD123	BD124
SEAL BODY SEAL	No. Req'd	568-234 1	568-234 1	568-341 1	568-347 1
NON-EXTRUSION RING		L370-12 No. Req'd	L370-12 1	L365-44 1	BD264 1
SEAL		L376-12	L388-12	L375-44	BD284
PROTECTOR RING	No. Req'd	1	1	1	1
SETTING TOOL		AG1000-38	AG1000-40	AG1000-44	AG1000-50
CONE		BD139	BD132	BD133	BD134
BYPASS RING		BD159	BD152	BD153	BD154
WASHPIPE		BD169	BD162	BD163	BD164
WASHPIPE SEAL (LARGE)	No. Req'd	568-234 1	568-234 1	568-238 1	568-347 1
WASHPIPE SEAL (SMALL)	No. Req'd	569-232 1	568-232 1		
WASHPIPE BODY		BD179	BD172	BD173	BD174
WASHPIPE BODY SEAL (LARGE)	No. Req'd	568-240 1	568-242 1	568-253 1	568-362 1
WASHPIPE BODY SEAL (SMALL)	No. Req'd	568-238 1	568-239 1	568-250 1	568-361 1
REDRESS KITS *		BD189	BD182	BD183	BD184
COMPLETE O-RING KIT		BD199	BD192	BD193	BD194

* Redress Kits include O-Ring Packing Sets, Polypak Kits, and Connector Body Wipers

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TOOL JOINT CONNECTION		2-7/8 EUE	3-1/2	4-1/2	5-1/2	6-5/8
		API Reg	API IF	API IF	API Reg	API Reg
OUTSIDE DIAMETER — INCHES		4-1/2	4-3/4	6-1/4	6-3/4	7-3/4
INSIDE DIAMETER — INCHES		2-3/8	2-1/4	2-1/4	2-3/4	3-1/16
COMPLETE ASSEMBLY		611-450	611-475	611-625	611-675	611-775
COMPONENTS						
COMPLETE		BD209	BD202	BD203	BD207	BD204
POLYPAK KIT						
<i>Consists of:</i>						
SPLINE BODY		BD209-1	BD202-1	BD203-1	**	BD204-1
POLYPAK	No. Req'd.	2	2	2	...	2
MANDREL		BD209-2	BD202-2	BD203-2	**	BD204-2
EXTENSION POLYPAK	No. Req'd.	2	2	2	...	2
CONNECTOR BODY ID	No. Req'd.	BX144-3	BD202-3	BD203-3	**	BD204-3
POLYPAK (SMALL)	No. Req'd.	4	2	4	...	4
CONNECTOR BODY ID	No. Req'd.	...	BD202-4	...	**	...
POLYPAK (LARGE)	No. Req'd....	...	2	...	...	...
CONNECTOR BODY		BD209-4	BD202-5	BD203-5	**	BD204-2
OD POLYPAK	No. Req'd.	2	2	2	...	2
FLOATER OD		BD209-2	BD202-2	BD203-2	**	BD204-4
POLYPAK	No. Req'd.	2	2	2	...	2
FLOATER ID		BX144-3	BD202-3	BD203-3	**	BD204-3
POLYPAK	No. Req'd.	2	2	2	...	2
MANDREL		BD209-6	BD202-6	BD203-6	**	BD204-6
EXTENSION	No. Req'd.	1	2	1	...	1
ASSEMBLY SLEEVE †						
JAR LUBE						
		49842-A	49842-B	49842-C	49842-D	
Bowen No.		49842-A	49842-B	49842-C	49842-D	
		1 Gallon	5 Gallons	20 Gallons	55 Gallons	

** To be advised by engineering

† Mandrel Extension Assembly Sleeve is not included in the Redress Kit. Must be purchased separately.

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SUPERIOR HYDRAULIC FISHING JAR STRENGTH DATA

CHART A — SPECIFICATIONS

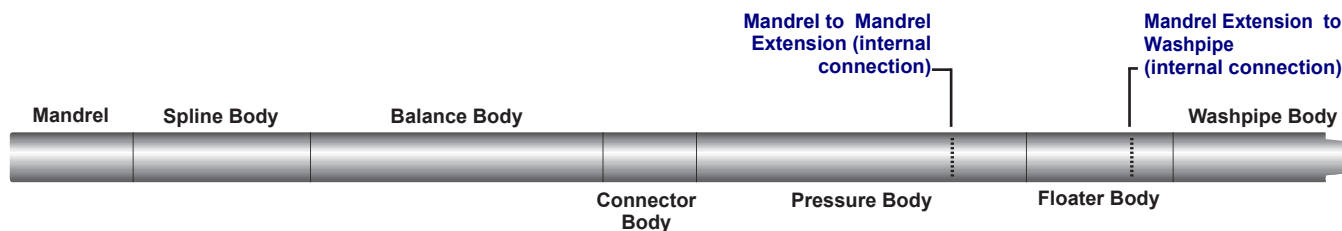
COMPLETE ASSEMBLY	611-306	611-312	611-313	611-375	611-377	611-376
OUTSIDE DIAMETER (INCHES)	3-1/16	3-1/8	3-1/8	3-3/4	3-3/4	3-3/4
INSIDE DIAMETER (INCHES)	1-1/2	1	1-1/2	1-1/2	1-1/4	1-7/8
CONNECTION	2-3/8 API EUE	2-3/8 API REG	2-7/8 PAC	2-3/8 API IF	2-7/8 API REG	2-3/8 API EUE
LENGTH (FEET & INCHES)	10' - 0"	10' - 0"	10' - 0"	12' - 8"	12' - 8"	12' - 8"
STROKE (INCHES)	10	10	10	10	10	10
FLOATER POSITION (INCHES)	MEASURED DISTANCE FROM FLOATER TO END OF FLOATER BODY					
STANDARD TEMPERATURE	8	8	8	9	9	8-3/4
HIGH TEMPERATURE	9-3/4	9-3/4	9-3/4	11	11	10-3/4
DRILL COLLAR WEIGHT RANGE (LBS)	300 – 4,000	300 – 4,000	300 – 4,000	400 – 6,000	400 – 6,000	400 – 6,000
PUMP OPEN AREA (SQ IN)	3	3	3	4	4	4

CHART B — STRENGTH AND TEST DATA

COMPLETE ASSEMBLY	611-306	611-312	611-313	611-375	611-377	611-376
JAR TESTER LOW TEST PULL LOAD MINIMUM / MAXIMUM (LBS)	7,000/12,000	9,000/12,000	7,000/12,000	12,000/16,000	12,000/16,000	12,000/16,000
JAR TESTER STANDARD PULL TEST (LBS)	18,000	30,000	18,000	35,000	35,000	35,000
FIELD LOAD — MAX PULL LOAD	36,000	55,000	36,000	72,000	72,000	51,000
LIFT LOAD AFTER JARRING						
JAR FULLY EXTENDED	185,000	253,000	185,000	330,000	330,000	285,000
TENSILE @ YIELD (LBS)						
TORQUE @ YIELD (FT-LBS)	4,200	7,500	4,200	14,500	14,500	9,650

CHART C — RECOMMENDED TIGHTENING TORQUES (FT-LBS)

COMPLETE ASSEMBLY	611-306	611-312	611-313	611-375	611-377	611-376
SPLINE BODY TO BALANCE BODY	2,100	2,700	2,100	3,500	3,650	3,500
BALANCE BODY TO CONNECTOR BODY	2,100	2,700	2,100	3,500	3,650	3,500
CONNECTOR BODY TO PRESSURE BODY	2,100	2,700	2,100	3,500	3,650	3,500
MANDREL TO MANDREL EXTENSION	500	600	500	700	700	700
PRESSURE BODY TO FLOATER BODY	2,100	2,700	2,100	3,500	3,650	3,500
MANDREL EXTENSION TO WASHPIPE	500	600	500	700	700	700
FLOATER BODY TO WASHPIPE BODY	2,100	2,700	2,100	3,500	3,650	3,500



Superior Hydraulic Fishing Jars

SUPERIOR HYDRAULIC FISHING JAR STRENGTH DATA

CHART A — SPECIFICATIONS

COMPLETE ASSEMBLY	611-425	611-450	611-475	611-625	611-775
OUTSIDE DIAMETER (INCHES)	4-1/4	4-1/2	4-3/4	6-1/4	7-3/4
INSIDE DIAMETER (INCHES)	2	2-3/8	2-1/4	2-1/4	3
CONNECTION	2-7/8 API IF	2-7/8 API EUE	3-1/2 API IF	4-1/2 API IF	6-5/8 API REG
LENGTH (FEET & INCHES)	13' - 6"	13' - 6"	13' - 6"	13' - 6"	15' - 0"
STROKE (INCHES)	12	12	12	12	12
FLOATER POSITION (INCHES)	MEASURED DISTANCE FROM FLOATER TO END OF FLOATER BODY				
STANDARD TEMPERATURE	9	9	10-3/4	10-3/4	11
HIGH TEMPERATURE	11	11	11-1/2	11-1/2	12-1/2
DRILL COLLAR WEIGHT RANGE (LBS)	400 – 6,000	400 – 6,000	500 – 8000	8,500 – 15,000	12,200 – 21,000
PUMP OPEN AREA (SQ IN)	6	7-1/2	7	11	16

CHART B — STRENGTH AND TEST DATA

COMPLETE ASSEMBLY	611-425	611-450	611-475	611-625	611-775
JAR TESTER LOW TEST PULL LOAD MINIMUM / MAXIMUM (LBS)	12,000/16,000	12,000/16,000	15,000/20,000	18,000/26,000	18,000/26,000
JAR TESTER STANDARD PULL TEST (LBS)	35,000	30,000	50,000	100,000	100,000
FIELD LOAD — MAX PULL LOAD	75,000	60,000	100,000	200,000	275,000
LIFT LOAD AFTER JARRING					
JAR FULLY EXTENDED	375,000	360,000	505,000	1,000,000	1,600,000
TENSILE @ YIELD (LBS)					
TORQUE @ YIELD (FT-LBS)	18,500	12,000	18,100	40,800	79,000

CHART C — RECOMMENDED TIGHTENING TORQUES (FT-LBS)

COMPLETE ASSEMBLY	611-425	611-450	611-475	611-625	611-775
SPLINE BODY TO BALANCE BODY	5,000	5,000	9,090	20,000	39,000
BALANCE BODY TO CONNECTOR BODY	5,000	5,000	9,090	20,000	39,000
CONNECTOR BODY TO PRESSURE BODY	5,000	5,000	9,090	20,000	39,000
MANDREL TO MANDREL EXTENSION	1,500	1,500	1,800	7,000	12,500
PRESSURE BODY TO FLOATER BODY	5,000	5,000	9,090	20,000	39,000
MANDREL EXTENSION TO WASHPIPE	1,500	1,500	1,000	4,800	10,500
FLOATER BODY TO WASHPIPE BODY	5,000	5,000	9,090	20,000	39,000

