

## Lubricated Fishing Bumper Subs

### LUBRICATED FISHING BUMPER SUBS

#### Overview

The Lubricated Fishing Bumper Sub is a dependable accessory that is suitable for all fishing operations, especially harsh, downhole applications and deep workover operations. It can also meet the demands of tools that require sharp, sustained bumping action to actuate or release them. The tool enables the operator to release the fishing tool in the event it becomes impossible to pull the fish. It can provide the necessary impact in either direction and deliver the required torque.

#### Construction

The Lubricated Fishing Bumper Sub is constructed from specially high-strength, heat-treated alloy steel to withstand severe stress caused by tension, jarring, and torque.

The tool permits a vertical stroke, either upward or downward, whether it is rotating or not.

The Lubricated Fishing Bumper Sub is composed of six major parts: a mandrel, mandrel body, middle body, knocker, washpipe, and a washpipe body. Critical seal points between the mandrel and washpipe are fitted with seal/ring assemblies that increase the life of the rings and prevent O-ring extrusion.

#### Operation

The Lubricated Fishing Bumper Sub is typically run directly above the spear, overshot, screw-in sub, or safety joint. When lift load is applied, the bumper sub will slide open until the knocker hits the mandrel body. Slacking weight off the work string to the fishing bumper sub will cause the mandrel body to slide back down the mandrel until the bottom shoulder of the mandrel body hits the top shoulder of the mandrel.

#### To Apply a Downward Blow

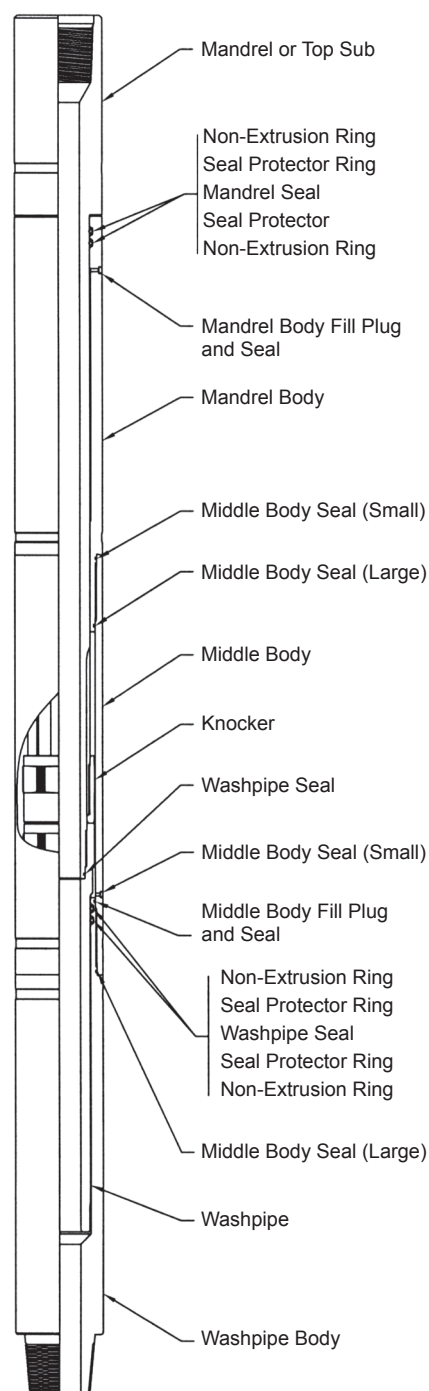
At the surface, mark the pipe to indicate the open and closed positions of the Lubricated Fishing Bumper Sub. Raise the fishing string to open the bumper sub and allow for extra string stretch. Sharply drop the string and stop with the brake approximately four to six inches above the closed position of the bumper sub to deliver a sharp downward blow. To deliver a solid downward blow, drop the full weight of the fishing string without braking.

#### To Apply an Upward Blow

At the surface, mark the pipe to indicate the open and closed positions of the Lubricated Fishing Bumper Sub. Raise the fishing string to open the bumper sub and allow for additional string stretch. Drop the string by the amount of the stretch only and stop it with the brake. As the pipe recoils at the bottom of the hole, the bumper sub will deliver a sharp upward blow.

#### When ordering, please specify:

- (1) Name and number of assembly or part
- (2) Connections, if other than standard
- (3) Outside diameter, if other than standard
- (4) Name and number of any desired spares



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<b>CONNECTION</b>	1-13/16	1-1/4	2-3/8	2-7/8	2-3/8	2-3/8	2-7/8
	WILSON FJ	API Reg	API Reg	API Reg	API IF	EUE	API IF
<b>OUTSIDE DIAMETER</b>	1-13/16	2-1/4	3-1/8	3-3/4	3-3/4	3-3/4	4-1/4
<b>INSIDE DIAMETER</b>	3/8	3/8	1	1-1/4	1-1/2	1-7/8	1-15/16
<b>STROKE LENGTH</b>	10	10	15-1/2	15-1/2	15-1/2	15-1/2	15-1/2
<b>COMPLETE ASSEMBLY</b>	<b>607-181</b>	<b>607-225</b>	<b>607-312</b>	<b>607-375</b>	<b>607-376</b>	<b>607-377</b>	<b>607-425</b>
Bowen No.	54781	41490	43501	43509	43470	43521	43531
<b>TOP SUB</b>	<b>AJ1000</b>	...	...	...	...	...	...
Bowen No.	36811	...	...	...	...	...	...
<b>MANDREL BODY</b>	<b>AJ2000</b>	<b>AJ2001</b>	<b>AJ2002</b>	<b>AJ2003</b>	<b>AJ2004</b>	<b>AJ2005</b>	<b>AJ2006</b>
Bowen No.	36742	41491	43502	43510	43471	43522	43532
<b>MIDDLE BODY</b>	<b>AJ3000</b>	<b>AJ3001</b>	<b>AJ3002</b>	<b>AJ3003</b>	<b>AJ3004</b>	<b>AJ3005</b>	<b>AJ3006</b>
Bowen No.	36744	41492	43503	43511	43472	43523	43533
<b>WASHPIPE BODY</b>	<b>AJ4000</b>	<b>AJ4001</b>	<b>AJ4002</b>	<b>AJ4003</b>	<b>AJ4004</b>	<b>AJ4005</b>	<b>AJ4006</b>
Bowen No.	54783	41493	43504	43512	43473	43524	43534
<b>MANDREL</b>	<b>AJ5000</b>	<b>AJ5001</b>	<b>AJ5002</b>	<b>AJ5003</b>	<b>AJ5004</b>	<b>AJ5005</b>	<b>AJ5006</b>
Bowen No.	53721	41520	43506	43514	43475	43526	43536
<b>WASHPIPE</b>	...	<b>AJ6001</b>	<b>AJ6002</b>	<b>AJ6003</b>	<b>AJ6004</b>	<b>AJ6005</b>	<b>AJ6006</b>
Bowen No.	...	41495	43505	43513	43474	43525	43535
<b>NON-EXTRUSION RING</b>	<b>L365-19</b>	<b>L365-24</b>	<b>L365-32</b>	<b>L365-35</b>	<b>L365-36</b>	<b>L365-37.5</b>	<b>L365-40</b>
Bowen No.	365-19	365-24	365-32	365-35	365-36	365-37.5	365-40
No. Req'd	4	8	8	8	8	8	8
<b>SEAL PROTECTOR RING</b>	<b>L375-19</b>	<b>L375-24</b>	<b>L375-32</b>	<b>L375-35</b>	<b>L375-36</b>	<b>L375-37.5</b>	<b>L375-40</b>
Bowen No.	375-19	375-24	375-32	375-35	375-36	375-37.5	375-40
No. Req'd	4	8	8	8	8	8	8
<b>MANDREL BODY FILL PLUG</b>	<b>AG10000</b>	<b>AG10002</b>	<b>AG10002</b>	<b>AG10002</b>	<b>AG10002</b>	<b>AG10002</b>	<b>AG10002</b>
Bowen No.	617	329	329	329	329	329	329
<b>MIDDLE BODY FILL PLUG</b>	<b>AG10000</b>	<b>AG10000</b>	<b>AG10004</b>	<b>AG10000</b>	<b>AG10000</b>	<b>AG10000</b>	<b>AG10000</b>
Bowen No.	617	617	10641	617	617	617	617
<b>KNOCKER</b>	...	<b>AJ7001</b>	<b>AJ7002</b>	<b>AJ7003</b>	<b>AJ7004</b>	<b>AJ7005</b>	<b>AJ7006</b>
Bowen No.	...	41845	43508	43516	39845	43528	43538

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- (1) Name and number of assembly or part
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- (4) Name and number of any desired spares

#### Recommended Spare Parts:

- (1) 1 Service Kit
- (2) 6 Seal Packing Sets
- (3) 4 Middle Body Fill Plugs
- (4) 4 Mandrel Body Fill Plugs
- (5) 16 Main Mandrel Non-Extrusion Rings
- (6) 16 Main Mandrel Seal Protector Rings
- (7) 1 Seal Ring Setting Tool

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<b>SERVICE KIT</b>		<b>26000-055</b>	<b>26000-055</b>	<b>26000-055</b>	<b>26000-055</b>	<b>26000-055</b>	<b>26000-055</b>	<b>26000-055</b>
	Bowen No.	55403	55403	55403	55403	55403	55403	55403
<b>SETTING TOOL</b>		<b>AG1000-19</b>	<b>AG1000-24</b>	<b>AG1000-32</b>	<b>AG1000-35</b>	<b>AG1000-36</b>	<b>AG1000-37.5</b>	<b>AG1000-40</b>
	Bowen No.	22709-19	22709-24	22709-32	22709-35	22709-36	22709-37.5	22709-40
<b>SEAL PACKING</b>		<b>28000-013</b>	<b>28000-014</b>	<b>28000-015</b>	<b>28000-016</b>	<b>28000-017</b>	<b>28000-018</b>	<b>28000-019</b>
<i>Consists of:</i>	Bowen No.	54784	41846	43519	43517	39720	43529	43539
<b>MAIN MANDREL &amp; WASHPIPE BODY SEAL</b>		<b>568-211</b>	<b>568-219</b>	<b>568-329</b>	<b>568-332</b>	<b>568-333</b>	<b>568-334</b>	<b>568-337</b>
	Bowen No.	568211	568219	568329	568332	568333	568334	568337
	No. Req'd	4	4	4	4	4	4	4
<b>MIDDLE BODY SEAL LARGE</b>		<b>568-029</b>	<b>568-224</b>	<b>568-231</b>	<b>568-235</b>	<b>568-235</b>	<b>568-236</b>	<b>568-239</b>
	Bowen No.	568029	568224	568231	568235	568235	568236	568239
	No. Req'd	2	2	2	2	2	2	2
<b>MIDDLE BODY SEAL SMALL</b>		<b>568-027</b>	<b>568-222</b>	<b>568-229</b>	<b>568-233</b>	<b>568-233</b>	<b>568-233</b>	<b>568-237</b>
	Bowen No.	568027	568222	568229	568233	568233	568233	568237
	No. Req'd	2	2	2	2	2	2	2
<b>WASHPIPE SEAL</b>		...	<b>568-210</b>	<b>568-220</b>	<b>568-222</b>	<b>568-223</b>	<b>568-229</b>	<b>568-227</b>
	Bowen No.	...	568210	568220	568222	568223	568229	568227
<b>MIDDLE BODY FILL PLUG SEAL</b>		<b>568-005</b>	<b>568-005</b>	...	<b>568-005</b>	<b>568-005</b>	<b>568-005</b>	<b>568-005</b>
	Bowen No.	568005	568005	...	568005	568005	568005	568005
<b>MANDREL BODY FILL PLUG SEAL</b>		<b>568-005</b>	<b>568-006</b>	<b>568-006</b>	<b>568-006</b>	<b>568-006</b>	<b>568-006</b>	<b>568-006</b>
	Bowen No.	568005	568006	568006	568006	568006	568006	568006

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#### Recommended Spare Parts:

- (1) 1 Service Kit
- (2) 6 Seal Packing Sets
- (3) 4 Middle Body Fill Plugs
- (4) 4 Mandrel Body Fill Plugs
- (5) 16 Main Mandrel Non-Extrusion Rings
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- (7) 1 Seal Ring Setting Tool



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CONNECTION	2-7/8	3-1/2 API	3-1/2 API	4-1/2 API	4-1/2 API	5-1/2 API	6-5/8 API
	EUE	IF or FH	IF	FH	IF or FH	Reg	Reg
OUTSIDE DIAMETER	4-1/2	4-3/4	4-3/4	6	6-1/4	6-3/4	7-3/4
INSIDE DIAMETER	2-3/8	2	2-1/4	2-13/16	3-1/8	2-3/4	3-1/2
STROKE LENGTH	15-1/2	15-1/2	15-1/2	18	18	18	18
<b>COMPLETE ASSEMBLY</b>	<b>607-450</b>	<b>607-475</b>	<b>607-476</b>	<b>607-600</b>	<b>607-625</b>	<b>607-675</b>	<b>607-775</b>
Bowen No.	42700	39727	...	39732	39737	39778	39752
<b>TOP SUB</b>	...	...	...	...	...	...	...
Bowen No.	...	...	...	...	...	...	...
<b>MANDREL BODY</b>	<b>AJ2007</b>	<b>AJ2008</b>	<b>AJ2008</b>	<b>AJ2009</b>	<b>AJ2010</b>	<b>AJ2011</b>	<b>AJ2012</b>
Bowen No.	42701	39861	39861	30541	34966	33244	34992
<b>MIDDLE BODY</b>	<b>AJ3007</b>	<b>AJ3008</b>	<b>AJ3008</b>	<b>AJ3009</b>	<b>AJ3010</b>	<b>AJ3011</b>	<b>AJ3012</b>
Bowen No.	42702	33156	33156	30542	34967	33245	34993
<b>WASHPIPE BODY</b>	<b>AJ4007</b>	<b>AJ4008</b>	<b>AJ40085</b>	<b>AJ4009</b>	<b>AJ4010</b>	<b>AJ4011</b>	<b>AJ4012</b>
Bowen No.	42703	39728	...	39733	39738	39779	39753
<b>MANDREL</b>	<b>AJ5007</b>	<b>AJ5008</b>	<b>AJ50085</b>	<b>AJ5009</b>	<b>AJ5010</b>	<b>AJ5011</b>	<b>AJ5012</b>
Bowen No.	42705	39860	...	30545	34970	33248	34996
<b>WASHPIPE</b>	<b>AJ6007</b>	<b>AJ6008</b>	<b>AJ60085</b>	<b>AJ6009</b>	<b>AJ6010</b>	<b>AJ6011</b>	<b>AJ6012</b>
Bowen No.	42704	39729	...	39734	39739	39780	39754
<b>NON-EXTRUSION RING</b>	<b>L365-43</b>	<b>L365-42</b>	<b>L365-42</b>	<b>L365-50.25</b>	<b>L365-53</b>	<b>L365-54</b>	<b>L365-61</b>
Bowen No.	365-43	365-42	365-42	365-50.25	365-53	365-54	365-61
No. Req'd	8	8	8	8	8	8	8
<b>SEAL PROTECTOR RING</b>	<b>L375-43</b>	<b>L375-42</b>	<b>L375-42</b>	<b>L375-50.25</b>	<b>L375-53</b>	<b>L375-54</b>	<b>L375-61</b>
Bowen No.	375-43	375-42	375-42	375-50.25	375-53	375-54	375-61
No. Req'd	8	8	8	8	8	8	8
<b>MANDREL BODY FILL PLUG SEAL</b>	<b>AG10002</b>	<b>AG10002</b>	<b>AG10002</b>	<b>AG10002</b>	<b>AG10002</b>	<b>AG10002</b>	<b>AG10002</b>
Bowen No.	329	329	329	329	329	329	329
<b>MIDDLE BODY FILL PLUG SEAL</b>	<b>AG10000</b>	<b>AG10000</b>	<b>AG10000</b>	<b>AG10000</b>	<b>AG10000</b>	<b>AG10000</b>	<b>AG10000</b>
Bowen No.	617	617	617	617	617	617	617
<b>KNOCKER</b>	<b>AJ7007</b>	<b>AJ7008</b>	<b>AJ7008</b>	<b>AJ7009</b>	<b>AJ7010</b>	<b>AJ7011</b>	<b>AJ7012</b>
Bowen No.	42708	39863	39863	30546	34972	33250	34998

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#### Recommended Spare Parts:

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<b>CONNECTION</b>		2-7/8 EUE	3-1/2 API IF or FH	3-1/2 API IF	4-1/2 API FH	4-1/2 API IF or FH	5-1/2 API Reg	6-5/8 API Reg
<b>OUTSIDE DIAMETER</b>		4-1/2	4-3/4	4-3/4	6	6-1/4	6-3/4	7-3/4
<b>INSIDE DIAMETER</b>		2-3/8	2	2-1/4	2-13/16	3-1/8	2-3/4	3-1/2
<b>STROKE LENGTH</b>		15-1/2	15-1/2	15-1/2	18	18	18	18
<b>COMPLETE ASSEMBLY</b>		<b>607-450</b>	<b>607-475</b>	<b>607-476</b>	<b>607-600</b>	<b>607-625</b>	<b>607-675</b>	<b>607-775</b>
	Bowen No.	42700	39727	...	39732	39737	39778	39752
<b>SERVICE KIT</b>		<b>26000-055</b>	<b>26000-055</b>	<b>26000-055</b>	<b>26000-055</b>	<b>26000-055</b>	<b>26000-055</b>	<b>26000-055</b>
	Bowen No.	55403	55403	55403	55403	55403	55403	55403
<b>SETTING TOOL</b>		<b>AG1000-43</b>	<b>AG1000-42</b>	<b>AG1000-42</b>	<b>AJ8000</b>	<b>AG1000-53</b>	<b>AG1000-54</b>	<b>AG1000-61</b>
	Bowen No.	22709-43	22709-42	22709-42	10572	22709-53	22709-54	22709-61
<b>SEAL PACKING</b>		<b>28000-020</b>	<b>28000-021</b>	<b>28000-021</b>	<b>28000-022</b>	<b>28000-023</b>	<b>28000-024</b>	<b>28000-025</b>
<i>Consists of:</i>	Bowen No.	42709	39730	...	39735	39740	39781	39755
<b>MAIN MANDREL &amp; W.P. BODY SEAL</b>		<b>568-340</b>	<b>568-339</b>	<b>568-339</b>	<b>568-347</b>	<b>568-426</b>	<b>568-427</b>	<b>568-434</b>
	Bowen No.	568340	568339	568339	568347	568426	568427	568434
	No. Req'd	4	4	4	4	4	4	4
<b>MIDDLE BODY SEAL LARGE</b>		<b>568-242</b>	<b>568-242</b>	<b>568-242</b>	<b>568-250</b>	<b>568-253</b>	<b>568-256</b>	<b>568-261</b>
	Bowen No.	568242	568242	568242	568250	568253	568256	568261
	No. Req'd	2	2	2	2	2	2	2
<b>MIDDLE BODY SEAL SMALL</b>		<b>568-239</b>	<b>568-239</b>	<b>568-239</b>	<b>568-247</b>	<b>568-251</b>	<b>568-254</b>	<b>568-260</b>
	Bowen No.	568239	568239	568239	568247	568251	568254	568260
	No. Req'd	2	2	2	2	2	2	2
<b>WASHPipe SEAL</b>		<b>568-231</b>	<b>568-229</b>	<b>568-229</b>	<b>568-236</b>	<b>568-239</b>	<b>568-238</b>	<b>568-246</b>
	Bowen No.	568231	568229	...	568236	568239	568238	568246
<b>MIDDLE BODY FILL PLUG SEAL</b>		<b>568-005</b>	<b>568-005</b>	<b>568-005</b>	<b>568-005</b>	<b>568-005</b>	<b>568-005</b>	<b>568-005</b>
	Bowen No.	568005	568005	568005	568005	568005	568005	568005
<b>MANDREL BODY FILL PLUG SEAL</b>		<b>568-006</b>	<b>568-006</b>	<b>568-006</b>	<b>568-006</b>	<b>568-006</b>	<b>568-006</b>	<b>568-006</b>
	Bowen No.	568006	568006	568006	568006	568006	568006	568006

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