

SUPREME FISHING JAR

Operation and Service Manual



1st Printing, December 10th, 2014

The design and tool specifications in this Operation & Service Manual were in effect at the time this manual was revised and approved for printing. All information regarding tool use, design, and strength capabilities are based on ideal conditions and are not meant to imply a guarantee, but only to be used as a reference guide. Gotco International reserves the right to change the designs, specifications, or discontinue products without notice.



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General Description:

The Gotco Supreme Fishing Jar is a straight pull jarring tool that contains a special piston that allows for metering oil from one side of the piston to the other. This allows for better control of the jarring action, during fishing operations. The operator controls the intensity of the jarring blow, by the amount of straight pull load applied. If the operator applies a light pull load, it will result in a lighter jarring load, while a heavier applied pulling load will result in a heavier jarring load. Therefore, by just adjusting the pull load, the jarring load will also be adjusted accordingly. When the Jar needs to be reset or "re-cocked," a very light load is required, due to the design of the valve at the piston. This allows the operator to deliver a series of quick and rapid blows, during fishing operations.

The Supreme Jar has operating chambers that are both sealed and isolated from each other to prevent contamination of the piston/valve section of the Jar. The impact sections of the Jar are protected with heavy, anti-galling grease, which also lubricates the splines inside the tool. The metering section utilizes a special grade of hydraulic oil, for metering and lubrication of the tool. The Jar is also hydrostatically pressure balanced and the inside diameter accommodates passage of wireline tools.

Applications:

The Supreme Fishing Jar should be placed in the string when jarring is required. This includes when working in shallow, directional or deviated holes.

Caution: *The Gotco Supreme* Amplifier should be located above all the drill collars, heavy weight drill pipe, or any other concentrated mass, that is *immediately above the Supreme* Jar. This weight will be used to provide the necessary impact at the stuck point when jarring. The working string, above the Amplifier, should not have a weight per foot change for at least 1,000 feet of string directly above the Superior Amplifier. The only exception is for a lighter joint screwed directly into the Amplifier for flexibility, when required for "bending." The jarring results will be much better, if there is no significant .weight above the Amplifier. Excess mass or weight above the Amplifier can cause the impact to occur, resulting in damage to the Amplifier, Jar, Bottom Hole Assembly components, or the fish being retrieved. When working in oversized or deviated holes, the Supreme Jar and Amplifier should be isolated from these areas, by using a more flexible joint of string. This will help to reduce damage to the equipment and protect the tools from fatigue failure and bending loads.

It is recommended that not less than two (2) joints of drill collars and not less than four (4) joints of heavy-wt. drill pipe be run between the Supreme Fishing Jar and the Supreme Amplifier, or between the Jar and the working string. If this can't be avoided, then avoid high-impact jarring loads.

Fishing, Milling, Wash-over

During "fishing operations," the Supreme Fishing jar should be placed immediately below a string of heavy mass, such as drill collars, heavy weight pipe, etc. Due to the integral mandrel design, the Supreme Fishing Jar can be used for milling and wash-over operations.

Coring Operations:

When the Gotco Supreme Jar is used, it only requires a moderate pull to deliver a sufficient impact to break up the core, during coring operations.

Formation Testing:

The Gotco Supreme Jar can be used in "drill stem testing." The seals used in the Jar will handle higher pressures than are normally encountered in drill stem testing. The Gotco Supreme Jar is a good tool to use for freeing open-hole or hook-wall packers, if they become stuck during jarring. Normally, one or two blows with the Jar will free up the packer. Hook-wall Packers may require a higher impact to free it.



Operation:

Examine all parts of the Gotco Supreme Fishing Jar, before use to ensure it has been assembled properly and has been filled with "jar oil." It is necessary to test the tool in a "tester," prior to use in the field. Check all connections for the proper tightening torque. (See the section for "Recommended Tightening Torque.")

Preliminary Procedures:

Caution: The Gotco Supreme Fishing Jar is shipped in the closed or "cocked" position. The Jar should not be left suspended from the elevator, especially if there is any significant weight below it. *This can cause the Jar to fire causing damage to the rig or bodily harm*.

The Supreme Fishing Jar should be opened carefully and assembled in the string below the concentrated mass. (See "Application" on preceding page.) It is also recommended that the Gotco Supreme Jar be ran with the Gotco Supreme Amplifier, to achieve maximum jarring effectiveness.

Jarring Procedures:

The Gotco Supreme Jar should be assembled, filled, and tested, prior to use in the field. (See "Operation" above.)

WARNING: The maximum,

recommended loads should not be exceeded during the pull cycle of the Jar, at any time. (See the Strength and Test Data Charts in this manual for pull loads.) It is recommended that a low, initial pull load of 30% to 50% of the max. load is to be used. The Operator can see the effects of the jarring action, prior to increasing the jarring load.

If a Supreme Amplifier is being used, the minimum applied pull load should be the minimum pull required (above mass weight of string) to obtain effective blows as given in the Strength Data Charts.

Jarring Procedure:

- 1. Initial blow: set the string down to ensure the jar is fully closed. Raise the string, applying the desired overpull on the Jar.
- 2. Set the break and wait for the Jar to strike a blow. This could take a few seconds to several minutes, depending on certain hole conditions.
- 3. Close the Jar and repeat the process, increasing the load as required to free the stuck fish.

<u>Caution</u>: Do not exceed the published, maximum load!

Troubleshooting:

Typical Operational Difficulties:

Unable to strike the initial blow:

- 1. Make sure the Jar is fully closed or cocked.
- 2. Lower the string further to apply more closing force, before applying pull load.
- 3. If the pumps are running, the pump pressure will be exerting an opening force on the Jar. To calculate the additional force needed to close the Jar, multiply the pump pressure x the pump open area. (See Chart, "Specifications) and apply the additional force.

4. If additional weight cannot be applied, and the Jar is still not cocked, it may be necessary to reduce the pump pressure temporarily, to get the Jar to cock.

After Jarring Procedures:

Normally, the Gotco Supreme Jar will come out of the hole in the open position.

Caution: If the Jar comes out of the hole in the closed position, It should not be left hanging from the elevators. If the Jar is allowed to fall the length of it's "free stroke," bodily harm or damage to the rig or workstring could occur.

To prevent corrosion, all exposed seal surfaces should be cleaned and greased, prior to closing the Jar for storage. All the balance ports should be flushed out, along with the I.D. and the area around the washpipe and floater, located inside the washpipe body. Clean the tool joints and coat with a good anti-gall tool joint grease. Replace all thread protectors.

Maintenance:

The Gotco Supreme Fishing Jar should be disassembled, cleaned, inspected and re-outfitted, after prolonged field use.

Equipment Required:

1. A suitable vise and tong.

- 2. Over-head crane with a 1 ton (2,000 pound) minimum lifting capacity.
- 3. Pipe wrenches of various sizes for outside diameters and internal parts.
- 4. Chain wrenches of suitable sizes.
- 5. Nylon lift straps for lifting heavy parts.



- 6. A suitable belt pulley assembly that can be suspended from a hoist. This will be used for rotating threaded parts during assembly and disassembly.
- 7. A suitable "Jar Tester" for various sizes of Gotco Supreme Jars.
- 8. Gotco Fishing Jar Service Kit.
- 9. The required packing "Assembly Sleeves," for the size Jar being dressed.
- 10. Floater Positioning Tool for the size of Jar being dressed.
- 11. All the required replaceable spare parts, such as O-rings, Wipers, Copper rings, etc.

<u>Caution</u>: The Supreme Jar could contain residual pressure, so care should be taken when draining oil from the tool, to avoid bodily harm.

Disassembly Procedures:

- **Note:** The Jar should always be in the open position, prior to disassembly. This postures the piston (cone, bypass ring) assembly in the relief area.
- 1. Position the Jar in a floor vise with the Connector Body centered in the vise. Support the Mandrel end of the Jar with a support stand.
- 2. Loosen the Pressure Body and back off the connection. Place a pan beneath, to catch oil in the pressure chamber. Exercise CAUTION at this point, due to possible residual pressure that could be trapped inside. Allow the oil to drain from the Pressure Body. Do not reuse this oil.
- 3. Remove the Pressure Body, Floater Body and Washpipe Body as an assembly and set it aside for disassembly later.

Support all parts with the belt pulley, as they are being removed.

- 4. Unscrew and remove the Washpipe and set it aside.
- 5. Remove the Seal Body, Piston Assembly, and By-pass Body. Protect these parts by wrapping them with cloth, bubble-wrap or some other method, and set them aside.
- 6. Reposition the Jar in the vise and clamp it in the vise on the Spline Body. Support the Jar at the Balance Body location, with a support stand.
- 7. Remove the Connector Body and set it aside.

Caution: The Mandrel Extension has ring grooves on the shaft that could hang up on the Connector Body I.D. seals, during disassembly. This is for the 4-3/4 O.D. tool only. If this occurs, then install the "Assembly-Sleeve," with the large end pointed downward, toward the end of the Mandrel Extension. Hold the Assy Sleeve in position until the Connector Body has covered the sleeve completely. Now, the Connector Body can be removed.

- 8. Remove the Assembly Sleeve installation rings and set aside for later use. Remove the Mandrel Extension and set it aside on a pallet.
- 9. Remove the Impact Sleeve, if equipped with one, and set it aside.
- 10. Remove the Mandrel from the Spline Body and set on a pallet.
- 11. Remove the Spline Body from the Vise.
- 12. Position the Pressure Body, Floater Body and Washpipe Body

in the vise, clamping on the Floater Body.

- 13. Remove the Washpipe Body and catch any oil that may have spilled over into the Washpipe Body during disassembly. Set it on a pallet.
- 14. Remove the Pressure Body, collecting any oil that may be still remaining inside. Set it on a pallet.
- 15. Remove the Floater from the Floater Body and set it aside on a pallet.

Disassembly has been completed.

Inspection of Parts:

Steam clean or high pressure wash parts prior to inspection. Inspect all seals and wipers and look for unusual or suspect wear patterns. Worn seals can cause premature seal failure and improper performance during jarring operations.

Note: All seals should be replaced when doing a complete disassembly or being repaired.

Caution: It is highly recommended that Magnetic Particle Testing is performed, in order to locate fatigue cracks that can lead to tool failure during use. Inspect all other parts for signs of wear, especially on the spline areas, critical i.d. bores, bearing faces on the connections, sealing surfaces and impact surfaces. Check all the shoulders on the connection joints. Also, check for wear that was caused by excessive torque on tools that have been used in heavy torsional operations, such as milling jobs.



Inspection of Critical Parts:

Piston Assembly:

Inspect the Piston (Cone, By-pass body ring and Seal Body) for galling or abrasions.

Note: There is a slight interference between the piston (cone) and the Pressure Body, so light marking or very light scratches can be expected. If these marks or scratches can be felt by your fingers, then it most likely needs to be replaced. Inspect the back of the cone for wear or pitting. The O.D. of the Cone is a sealing surface and must have a finish of at least 16 ms, to be acceptable. Also, inspect the Seal Body for any pits or scratches on the sealing surfaces. Check that the oil passage groove is clean.

Pressure Body:

Examine the finished, i.d. bore for galling and pitting. If there appears to be any significant damage, the parts will need to be replaced or possibly reworked with chrome plating and grinding. This will need to be done by the manufacturing facility of Gotco International.

Spline Body:

All of the splines inside the Spline Body need to be checked for damage such as heavy wear, burrs or rounded edges. Remove burrs with a file or grinder.

Mandrel:

All of the splines on the Mandrel need to be checked for damage such as heavy wear, burrs or rounded edges. Remove burrs with a file or grinder.

<u>Caution:</u> Wear protective eyewear and gloves when using power tools for removing burrs from the spline areas.

Impact Surfaces:

Impact loads occur mainly on the male end of the Spline Body and the Impact Sleeve, on the large O.D. end. (If equipped with an Impact Sleeve.) These areas need to be inspected for imperfections caused by high impact loads. Any upset can be removed with a file or hand, die grinder, using the proper bit. Also check for visual signs of cracking or any other damage.

Assembly Procedures: Preparation: (SEE SETTING TOOL

(SEE SETTING TOOL INSTRUCTIONS, AT THE END OF THIS SECTION))

Clean and inspect all parts, prior to assembly.

Install all the seals and wipers in their proper location, paying close attention to orientation of these parts. All of the seals should be coated with jar oil, prior to assembly. (See the Illustrations in this Manual)

- 1. Place the Spline Body in the vise and clamp it down securely. Apply anti-galling grease to the inside of the splines and at the top end of the Spline Body, past the seal gland areas.
- 2. Install the Mandrel through the Spline Body. Ensure the splines on the Mandrel or properly aligned with the splines on the Spline Body. Grease the splines on the Mandrel first.
- 3. Install the Mandrel Extension onto the end of the Mandrel and torque it to the specified value, as shown in the *Strength Data Charts* in this manual. *Note: Some Jars require a Jar*

Impact Sleeve. If your assembly does, then install it before the Mandrel Extension is screwed onto the Mandrel. Install the sleeve with the larger O.D. going on first. Make sure the threads are coated with a suitable, high-quality thread compound. Keep the thread compound between the O-ring seals on the connection, to avoid contaminating the hydraulic oil.

4. Install the Balance Body onto the Spline Body. The balance holes should be pointed away from the Spline Body. Coat the threads with thread compound.

Use the Mandrel Assembly Sleeve or split rings on/ or in the <u>Mandrel Extension grooves, or</u> <u>shoulder area</u>. Install the split rings or Mandrel Assembly Sleeve with the largest O.D. end toward the Balance Body. (*See page 8, for illustration of the Assembly Sleeve.*)

- 5. Install the Connector Body over the Mandrel Extension, with the "low-pressure" seal end, with Oring on the O.D. only, pointed upward, toward the Balance Body. Lubricate the length of the Mandrel Extension with Jar oil, for easier assembly. Screw the threaded end into the Balance Body and tighten. <u>Remove the "Installation Sleeve or split rings" from the grooves on the Mandrel Extension</u>.
- 6. Install the By-pass Body with the larger diameter end, pointed upward, toward the Connector Body. The SJ-46 (4-3/4 OD x 2-1/4 ID) uses a <u>split</u> By-pass Ring that requires it to be seated in grooves on the Mandrel Extension, and the Piston Cone pushed over its smaller diameter end. The Counter-bored end pointed upward, toward the Connector Body.
- 7. Install the Piston "Cone," with the counter-bored end pointed upward toward the Connector Body.
- (Continues on the next page)



- 8. Install the Seal Body <u>with the oil</u> <u>groove facing up</u>. (Note stenciling on the O.D. of the part.)
- 9. Screw on the Washpipe to the Mandrel Extension. Apply thread compound to the threads of the Mandrel Extension. Torque to the values given in the "**Strength and Data Chart**" in this Manual.
- Remove all excess thread compound from the Washpipe, Mandrel Extension and Connector Body pin outer diameter. Apply clean jar lube on the cone and seal body assembly.
- 11. Install the Pressure Body.
- Note: The Pressure Body is stenciled or marked with "Connector Body End" and "Floater Body End," as to avoid confusion. Please assemble in the proper direction. Use a high quality thread compound on the Connector Body threads, prior to assembly.
- 12. Install the Floater Body. Make sure the threads are coated with thread compound. <u>Do not coat</u> <u>excessively</u>, to avoid contaminating the Jar lube oil.
- 13. Coat the O.D. and I.D. of the Floater with clean Jar Lube. Install the Floater and position it with the <u>Floater Positioning Tool</u>. (See page 8, for illustration of this tool.)This will locate the end of the Floater the proper distance from the end of the Floater Body. See Chart "A" Supreme Jar Strength Data Section, in this manual to properly locate the Floater.
- 14. Install the Washpipe Body. Coat threads with thread compound.

15. Tighten all the external part joints to the recommended tightening torque specified. See the Strength and Data Tables, Chart "C," in this manual.

Filling the Supreme Jar with Oil:

- **Note:** After assembling the Jar, it should remain fully open, with the Mandrel extended, until it has been filled with jar oil. After the filling has been done, and the jar has been tested, the <u>Floater should be checked prior</u> to using the jar in service.
- 1. Place the Jar in the vise with the Mandrel end approximately 24" lower than the floater body, where the fill plugs are located.
- 2. Attach the fill plug adapters, provided with the Service Kit.
- 3. Attach the Volume Pump Oil Supply Hose to the bottom fill plug port, in the in the Floater Body.
- 4. Attach the Oil Return Hose to the upper or top Fill Plug port.
- 5. Fill the Jar with oil. Observe the return line, to see when the air bubbles cannot be seen.
- **Note:** It may take several minutes before oil can be seen in the return line. The main oil chamber needs to fill before air can be purged from the system.
- 6. When you start to see oil in the return line, slowly elevate the low end of the Mandrel end of the Jar to aid in purging air. Raise the Jar about (6) inches at a time, pausing the pumping action occasionally for purging air out of the system. Continue this process, until the Jar is basically horizontal with no more air bubbles are visible in the line.

7. Once the Jar is full of oil, install the fill plug in the top fill plug port first. Then rotate the Jar 180 degrees and install the other Fill Plug.

Testing the Supreme Jar:

- <u>Note:</u> Have all necessary data and test loads prior to testing. See Chart "B", Strength and Data Section in this Manual.
- 1. Install Jar Tester Subs onto the Jar and place it into the Tester. (Hoist)
- 2. Set the Jar Tester loads as required.
- 3. Conduct the low-load test, recording the time for each pull cycle. Stroke one (1) time for the Low-Load Test and five (5) times for the High-Load Test.

Note: See Table #1, this Manual

- 4. Re-adjust the Jar Tester for a "High-Test Load" and record the test for each pull cycle. After the fifth pull test, the pull-through time should be within the specified times shown.
- 5. Repeat the "Low-Pull" Test, after the High-Pull Test, since the jar is now heated up, to verify that the Low Pull Test is still valid.
- **Caution:** The first couple of pulls during the Low-Test Pull can be very slow and take several minutes to complete. This is because the Jar is still cool, but after a few strokes, the jar oil will start to heat up, getting a little bit thinner, allowing for the pull times to be faster.

See the Parts List for ordering information.

Part Number Type of Connection required.



GOTCO SUPREME FISHING JARS

SETTING TOOL INSTRUCTIONS:

It is recommended that you use the proper "Setting Tool," when installing the Copper Non-Extrusion Rings, Protector Rings and O-ring Seals in the high-pressure sealing areas. This is normally in the Connector Body and Seal Body parts. The illustration below represents either of these locations and the technique is the same for any area on the Supreme Fishing Jar or the Supreme Amplifier assemblies.







GOTCO SUPREME FISHING JARS

USING THE ASSEMBLY SLEEVE TOOL:

Use the Mandrel Assembly Sleeve or split rings on/ or in the <u>Mandrel Extension grooves</u>, or <u>shoulder area</u>. Install the split rings or Mandrel Assembly Sleeve with the largest O.D. end toward the Balance Body. Remove the assembly sleeve, once the Connector Body has been slid over the Mandrel Extension and screwed on to the Balance Body.



USING THE FLOATER POSITIONING TOOL:

Coat the O.D. and I.D. of the Floater with clean Jar Lube. Install the Floater and position it with the <u>Floater Positioning Tool</u>. This will locate the end of the Floater the proper distance from the end of the Floater Body. See Chart "A" Supreme Jar Strength Data Section, in this manual to properly locate the Floater.





Star	Standard Testing Times for the GOTCO Supreme Fishing Jars Perform one (1) low pull test, followed by five (5) test pull sequences.									
SIZE	SIZE		REACTION	STD		ON TIME				
O.D. (ins)	I.D. (ins)	(lbs)	TIME	TEST PULL	AFTER FI MINIMUM	FTH PULL MAXIMUM				
			(Record)	(lbs)	(sec)	(sec)				
3-1/16	1-1/2	7,000 - 12,000		18,000	20	2				
3-1/8	1	9,000 - 12,000		30,000	30	2				
3-1/8	1-1/2	7,000 - 12,000		18,000	30	2				
3-3/4	1-1/4	12,000 - 16,000		35,000	35	2				
3-3/4	1-1/2	12,000 - 16,000		35,000	35	2				
3-3/4	1-7/8	12,000 - 16,000		35,000	35	2				
4-1/4	2	12,000 - 16,000		35,000	35	2				
4-1/2	2-3/8	12,000 - 16,000		30,000	35	2				
4-3/4	2-1/4	15,000 - 20,000		50,000	45	2				
6-1/4	2-1/4	18,000 - 26,000		100,000	45	2				
6-1/2	2-1/4	18,000 - 26,000]	100,000	45	2				
7-3/4	3-1/16	18,000 - 26,000		100,000	45	2				
8	3-1/16	18,000 - 26,000		100,000	45	2				

The low test pull should not exceed ten (10) minutes for all sizes

Table 1



Gotco Supreme Fishing Jar Strength and Testing Data

CHART "A" - SPECIFICATIONS

COMPETE ASSEMBLY	SJ-306	SJ-31	SJ-313	SJ-36	SJ-377	SJ-376
O.D (ins)	3-1/16	3-1/8	3-1/8	3-3/4	3-3/4	3-3/4
I.D (ins)	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 (ft. & ins)	10' - 0''	10' - 0''	10' - 0''	12' - 8"	12' - 8"	12' - 8"
Stroke (ins)	10	10	10	10	10	10
Floater Position (ins)	MEA	SURED DISTANC	E FROM THE FLO	ATER TO END OF	F THE FLOATER E	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	300-4,000	300-4,000	300-4,000	400 - 6,000	400 - 6,000	400 - 6,000
(lbs)						
Pump Open Area (sq. ins)	3	3	3	4	4	4

CHART "B" - STRENGTH AND TEST DATA

COMPETE ASSEMBLY	SJ-306	SJ-31	SJ-313	SJ-36	SJ-377	SJ-376
Jar Tester Low Test Pull Load	7,000 - 12,000	9,000 - 12,000	7,000 - 12,000	12,000 -	12,000 -	12,000 -
MIN/MAX (lbs)				16,000	16,000	16,000
Jar Tester Standard Pull Test	18,000	30,000	18,000	35,000	35,000	35,000
(lbs)						
Field Load – MAX Pull Load	36,000	55,000	36,000	72,000	72,000	51,000
Lift Load after Jarring	185,000	253,000	185,000	330,000	330,000	285,000
Jar Fully Extended						
Tensile @ Yield (lbs)						
Torque @ Yield (ftlbs)	4,200	7,500	4,200	14,500	14,500	9,650

The above strengths are based on theoretical yield strengths and are considered to be accurate to within (+-) 20%. Also, these loads are based on the loads being in line with the axis of the Jar and does not take into account any additional combined stresses.

CHART "C" - RECOMMENDED TIGHTENING TORQUES (ft.-lbs)

			-~~)			
COMPETE ASSEMBLY	SJ-306	SJ-31	SJ-313	SJ-36	SJ-377	SJ-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

These values represent the maximum allowable makeup torque values for these connections. Torque values this high are not always required for each every fishing job and lower values should be considered to save wear on the threads. A good thread compound should be used on these connections.





Gotco Supreme Fishing Jar Strength and Testing Data

CHART "A" - SPECIFICATIONS

COMPETE ASSEMBLY	SJ-42	SJ-44	SJ-46	SJ-62	SJ-76
O.D (ins)	4-1/4	4-1/2	4-3/4	6-1/4	7-3/4
I.D (ins)	2	2-3/8	2-1/4	2-1/4	3-1/16
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 (ft. & ins)	13' – 6"	13' – 6"	13' – 6"	13' – 6"	15' – 0"
Stroke (ins)	12	12	12	12	12
Floater Position (ins)	MEASURED D	ISTANCE FROM	THE FLOATER TO	OEND OF THE FL	OATER 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	400 - 6,000	400 - 6,000	500 - 8,000	8,500 - 15,000	12,200 - 21,000
(lbs)					
Pump Open Area (sq. ins)	6	7-1/2	7	11	16

CHART "B" - STRENGTH AND TEST DATA

COMPETE ASSEMBLY	SJ-42	SJ-44	SJ-46	SJ-62	SJ-76
Jar Tester Low Test Pull Load	12,000 -	12,000 -	15,000 -	18,000 -	18,000 -
MIN/MAX (lbs)	16,000	16,000	20,000	26,000	26,000
Jar Tester Standard Pull Test	35,000	30,000	50,000	100,000	100,000
(lbs)					
Field Load – MAX Pull Load	75,000	60,000	100,000	200,000	275,000
Lift Load after Jarring	375,000	360,000	505,000	1,00,000	1,600,000
Jar Fully Extended					
Tensile @ Yield (lbs)					
Torque @ Yield (ftlbs)	18,500	12,000	18,100	40,800	79,000

The above strengths are based on theoretical yield strengths and are considered to be accurate to within (+-) 20%. Also, these loads are based on the loads being in line with the axis of the Jar and does not take into account any additional combined stresses.

CHART "C" - RECOMMENDED TIGHTENING TORQUES (ft.-lbs)

COMPETE ASSEMBLY	SJ-42	SJ-44	SJ-46	SJ-62	SJ-76
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

These values represent the maximum allowable makeup torque values for these connections. Torque values this high are not always required for each every fishing job and lower values should be considered to save wear on the threads. A good thread compound should be used on these connections.





















SUPREME FISHING JARS

SIZE		2-3/8	2-3/8	2-7/8	2-3/8	2-7/8	2-3/8
CONNECTIONS		EUE	API REG	PAC	I.F.	API REG	EUE
OUTSIDE DIA.	INCHES	3-1/16	3-1/8	3-1/8	3-3/4	3-3/4	3-3/4
INSIDE DIAM.	INCHES	1-1/2	1	1-1/2	1-1/2	1-1/4	1-7/8
COMPLETE	PART#	SJ-306	SJ-31	SJ-313	SJ-36	SJ-377	SJ-376
ASSEMBLY	XREF#	611-306	611-312	611-313	611-375	611-377	611-376

MACHINED REPLACEMENT PARTS

MANDREL	PART#	SJ-306-2	SJ-31-2	SJ-313-2	SJ-36-2	SJ-377-2	SJ-376-2
	XREF#	BD15	BD10	BD15	BD11	BD11	BD18
MANDREL	PART#	SJ-306-2X	SJ-31-2X	SJ-313-2X	SJ-36-2X	SJ-377-2X	SJ-376-2X
EXTENSION	XREF#	BD25	BD20	BD25	BD21	BD21	BD28
MANDREL	PART#	SJ-313-2-IS	SJ-31-2-IS	SJ-313-2-IS	SJ-36-2-IS	SJ-36-2-IS	SJ-376-IS
IMPACT	XREF#	BD35	BD30	BD35			
SLEEVE							
FLOATER	PART#	SJ-313-3	SJ-31-3	SJ-313-3	SJ-36-3	SJ-36-3	SJ-376-3
	XREF#	BD115	BD110	BD115	BD111	BD111	BD118
SPLINE BODY	PART#	SJ-313-4	SJ-31-4	SJ-313-4	SJ-36-4	SJ-36-4	SJ-376-4
	XREF#	BD45	BD40	BD45	BD41	BD41	BD48
BALANCE	PART#	SJ-313-5	SJ-31-5	SJ-313-5	SJ-36-5	SJ-36-5	SJ-376-5
BODY	XREF#	BD55	BD50	BD55	BD51	BD51	BD58
WASHPIPE	PART#	SJ-306-6	SJ-31-6	SJ-313-6	SJ-36-6	SJ-377-6	SJ-376-6
BODY	XREF#	BD175	BD170	BD175	BD171	BD171	BD178
CONE	PART#	SJ-313-7	SJ-31-7	SJ-313-7	SJ-36-7	SJ-36-7	SJ-376-7
	XREF#	BD135	BD130	BD135	BD131	BD131	BD138
WASHPIPE	PART#	SJ-306-8	SJ-31-8	SJ-313-8	SJ-36-8	SJ-377-8	SJ-376-8
	XREF#	BD165	BD160	BD165	BD161	BD161	BD168
CONNECTOR	PART#	SJ-313-9	SJ-31-9	SJ-313-9	SJ-36-9	SJ-36-9	SJ-376-9
BODY	XREF#	BD65	BD60	BD65	BD61	BD61	BD68
PRESSURE	PART#	SJ-313-10	SJ-31-10	SJ-313-10	SJ-36-10	SJ-36-10	SJ-376-10
BODY	XREF#	BD85	BD80	BD85	BD81	BD81	BD88
FLOATER	PART#	SJ-313-11	SJ-31-11	SJ-313-11	SJ-36-11	SJ-36-11	SJ-376-11
BODY	XREF#	BD95	BD90	BD95	BD91	BD91	BD98
BYPASS RING	PART#	SJ-313-12	SJ-31-12	SJ-313-12	SJ-36-12	SJ-36-12	SJ-376-12
	XREF#	BD155	BD150	BD155	BD151	BD151	BD158
SEAL BODY	PART#	SJ-313-13	SJ-31-13	SJ-313-13	SJ-36-13	SJ-36-13	SJ-376-13
	XREF#	BD125	BD120	BD125	BD121	BD121	BD128
FLOATER	PART#	SJ-313-FPT	SJ-31-FPT	SJ-313-FPT	SJ-36-FPT	SJ-36-FPT	SJ-376-FPT
POSITIONING	XREF#	BD295	BD290	BD295	BD291	BD291	BD298
TOOL							
SETTING TOOL	PART#	SJ-313-17	SJ-31-17	SJ-313-17	SJ-36-17	SJ-36-17	SJ-376-17
CONN. BODY	XREF#						
I.D.							
SETTING TOOL	PART#	SJ-313-18	SJ-31-18	SJ-313-18	SJ-36-18	SJ-36-18	SJ-376-18
SEAL. BODY	XREF#						
I.D.		ļ					
MANDREL EXT.	PART#	SJ-313-SLV	SJ-31-SLV	SJ-313-SLV	SJ-36-SLV	SJ-36-SLV	SJ-376-SLV
ASSEMBLY	XREF#	BD205-6	BD200-6	BD205-6	BD201-6	BD201-6	BD208-6
SLEEVE	1						

**Setting Tools are Optional Equipment.

* See Ordering Instructions in this Section.



SUPREME FISHING JARS

SIZE CONNECTIONS		2-7/8 APLLE.	2-7/8 EUE	3-1/2 APLLE.	4-1/2 APLLE.	5-1/2 API REG	5-1/2 API REG
OUTSIDE DIA.	INCHES	4-1/4	4-1/2	4-3/4	6-1/4	6-3/4	7-3/4
INSIDE DIAM.	INCHES	2	2-3/8	2-1/4	2-1/4	2-3/4	3-1/16
COMPLETE	PART#	SJ-42	SJ-44	SJ-46	SJ-62	SJ-66	SJ-76
ASSEMBLY	XREF#	611-425	611-450	611-475	611-625	611-675	611-775

MACHINED REPLACEMENT PARTS

MANDREL	PART#	SJ-42-2	SJ-44-2	SJ-46-2	SJ-62-2	SJ-66-2	SJ-76-2
	XREF#	BD16	BD19	BD12	BD13	BD17	BD14
MANDREL	PART#	SJ-42-2X	SJ-44-2X	SJ-46-2X	SJ-62-2X	SJ-66-2X	SJ-76-2X
EXTENSION	XREF#	BD26	BD29	BD22	BD23	BD27	BD24
MANDREL	PART#	SJ-42-2-IS	SJ-44-2-IS	SJ-46-2-IS	SJ-62-2-IS	SJ-66-2-IS	SJ-76-IS
IMPACT	XREF#			BD32		Bd37	
SLEEVE							
FLOATER	PART#	SJ-42-3	SJ-44-3	SJ-46-3	SJ-62-3	SJ-66-3	SJ-76-3
	XREF#	BD116	BD119	BD112	BD113	BD117	BD114
SPLINE BODY	PART#	SJ-42-4	SJ-44-4	SJ-46-4	SJ-62-4	SJ-66-4	SJ-76-4
	XREF#	BD46	BD49	BD42	BD43	BD47	BD44
BALANCE	PART#	SJ-42-5	SJ-44-5	SJ-46-5	SJ-62-5	SJ-66-5	SJ-76-5
BODY	XREF#	BD56	BD59	BD52	BD53	BD57	BD54
WASHPIPE	PART#	SJ-42-6	SJ-44-6	SJ-46-6	SJ-62-6	SJ-66-6	SJ-76-6
BODY	XREF#	BD176	BD179	BD172	BD173	BD177	BD174
CONE	PART#	SJ-42-7	SJ-44-7	SJ-46-7	SJ-62-7	SJ-66-7	SJ-76-7
	XREF#	BD136	BD139	BD132	BD133	BD137	BD134
WASHPIPE	PART#	SJ-42-8	SJ-44-8	SJ-46-8	SJ-62-8	SJ-66-8	SJ-76-8
	XREF#	BD166	BD169	BD162	BD163	BD167	BD164
CONNECTOR	PART#	SJ-42-9	SJ-44-9	SJ-46-9	SJ-62-9	SJ-66-9	SJ-76-9
BODY	XREF#	BD66	BD69	BD62	BD63	BD67	BD64
PRESSURE	PART#	SJ-42-10	SJ-44-10	SJ-46-10	SJ-62-10	SJ-66-10	SJ-76-10
BODY	XREF#	BD86	BD89	BD82	BD83	BD87	BD84
FLOATER	PART#	SJ-42-11	SJ-44-11	SJ-46-11	SJ-62-11	SJ-66-11	SJ-76-11
BODY	XREF#	BD96	BD99	BD92	BD99	BD97	BD94
BYPASS RING	PART#	SJ-42-12	SJ-44-12	SJ-46-12	SJ-62-12	SJ-66-12	SJ-76-12
	XREF#	BD156	BD159	BD152	BD153	BD157	BD154
SEAL BODY	PART#	SJ-42-13	SJ-44-13	SJ-46-13	SJ-62-13	SJ-66-1	SJ-76-13
	XREF#	BD126	BD129	BD122	BD123	BD127	BD124
FLOATER	PART#	SJ-42-FPT	SJ-44-FPT	SJ-46-FPT	SJ-62-FPT	SJ-66-FPT	SJ-76-FPT
POSITIONING	XREF#	BD296	BD299	BD292	BD293	BD297	BD294
TOOL							
SETTING TOOL	PART#	SJ-42-17	SJ-44-17	SJ-46-17	SJ-62-17	SJ-66-17	SJ-76-17
CONN. BODY	XREF#						
I.D.							
SETTING TOOL	PART#	SJ-42-18	SJ-44-18	SJ-46-18	SJ-62-18	SJ-66-18	SJ-76-18
SEAL. BODY	XREF#						
I.D.							
MANDREL EXT.	PART#	SJ-42-SLV	SJ-44-SLV	SJ-46-SLV	SJ-62-SLV	SJ-66-SLV	SJ-76-SLV
ASSEMBLY	XREF#	BD206-2	BD209-6	BD202-6	BD203-6		BD204-6
SLEEVE							

**Setting Tools are Optional Equipment.

* See Ordering Instructions in this Section.



SUPREME FISHING JARS

SIZE		2-3/8	2-3/8	2-7/8	2-3/8	2-7/8	2-3/8
CONNECTIONS		EUE	API REG	PAC	I.F.	API REG	EUE
OUTSIDE DIA.	INCHES	3-1/16	3-1/8	3-1/8	3-3/4	3-3/4	3-3/4
INSIDE DIAM.	INCHES	1-1/2	1	1-1/2	1-1/2	1-1/4	1-7/8
COMPLETE	PART#	SJ-306	SJ-31	SJ-313	SJ-36	SJ-377	SJ-376
ASSEMBLY	XREF#	611-306	611-312	611-313	611-375	611-377	611-376

O-RINGS, WIPERS, AND PARBAK RINGS

MANDREL	PART#				G-2-225	G-2-225	
SEAL	XREF#				568225 (1)	568225 (1)	
MANDREL EXT.	PART#	G-2-225	G-2-224	G-2-225			G-2-229
SEAL	XREF#	568225 (1)	568224 (1)	568225 (1)			568229 (1)
MANDREL EXT.	PART#						
WIPER	XREF#						
SPLINE BODY	PART#	G-2-230	G-2-230	G-2-230	G-2-234	G-2-234	G-2-235
SEAL	XREF#	568230(1)	568230(1)	568230(1)	568234 (1)	568234 (1)	568235 (1)
CONN. BODY	PART#	G-2-230	G-2-230	G-2-230	G-2-234	G-2-234	G-2-235
SEAL –(LARGE)	XREF#	568230 (2)	568230 (2)	568230 (2)	568234 (2)	568234 (2)	568235 (2)
CONN. BODY	PART#	G-2-228	G-2-228	G-2-228	G-2-232	G-2-232	G-2-233
SEAL – (SMALL)	XREF#	568228 (2)	568228 (2)	568228 (2)	568232 (1)	568232 (1)	568233 (1)
CONN BODY	PART#		. ,		SJ-36-9W	SJ-36-9W	SJ-376-9W
WIPER	XREF#				BD71 (1)	BD71 (1)	BD78 (1)
FLOATER	PART#	G-2-230	G-2-230	G-2-230	G-2-234	G-2-234	G-2-235
BODY SEAL	XREF#	568230	568230	568230	568234	568234	568235
(LARGE)	AKEI'#	(1)	(1)	(1)	(1)	(1)	(1)
FLOATER	PART#	G-2-228	G-2-228	G-2-228	G-2-232	G-2-232	G-2-233
BODY SEAL	XREF#	568228	568228	568228	568232	568232	568233
(SMALL)	ΛΚΕΓ#	(1)	(1)	(1)	(1)	(1)	(1)
FLOATER	PART#	G-2-006	G-2-006	G-2-006	G-2-006	G-2-006	G-2-006
BODY FILL	XREF#	568006	568006	568006	G-2-006 568006	568006	568006
PLUG SEAL	AKEF#	(2)	(2)	(2)	(2)	(2)	(2)
FLOG SEAL	DADT						
	PART# XREF#	G-2-228 568228 (3)	G-2-228 568228 (1)	G-2-228 568228 (3)	G-2-232 568232 (1)	G-2-232 568232 (1)	G-2-233
(LARGE) FLOATER SEAL	PART#	G-2-226	G-2-224	G-2-226	G-2-228	G-2-230	568233 (1) G2-230
		~ = == ~			~ = == -		
(SMALL)	XREF#	568226 (3)	568224 (1)	568226 (3)	568228 (1)	568230 (1)	568230 (1)
SEAL BODY	PART#	G-2-225	G-2-130	G-2-225	G-2-227	G-2-227	G-2-143
SEAL-	XREF#	568225 (1)	568130(1)	568225 (1)	568227 (1)	568227 (1)	568143 (1)
WASHPIPE	PART#		G-2-130		G-2-227	G-2-227	G-2-143
SEAL-(LARGE)	XREF#		568130(1)		568227 (1)	568227 (1)	568143 (1)
WASHPIPE	PART#	G-2-224	G-2-221	G-2-224	G-2-225	G-2-225	G-2-228
SEAL-(SMALL)	XREF#	568224 (1)	568221 (1)	568224 (1)	568225 (1)	568225 (1)	568228 (1)
W'PIPE BODY	PART#	G-2-230	G-2-230	G-2-230	G-2-234	G-2-234	G-2-235
SEAL- (LARGE).	XREF#	568230(1)	568230(1)	568230(1)	568234 (1)	568234 (1)	568235 (1)
W'PIPE BODY	PART#	G-2-228	G-2-228	G-2-228	G-2-232	G-2-232	G-2-233
SEAL-(SMALL)	XREF#	568228 (1)	568228 (1)	568228 (1)	568232 (1)	568232 (1)	568233 (1)
						~ ~ ~ ~ ~	
FLOATER O.D.	PART#				G-8-232	G-8-232	
PARBAK RING	XREF#				8-232	8-232	
FLOATER I.D.	PART#	G-8-226		G-8-226	G-8-228	G-8-228	
PARBAK RING	XREF#	8-226	•••••	8-226	8-228	8-228	
I ANDAN NINU	AREI'#	3		3	0-220	0-220 1	
O DINC	DADT#	5 SJ-313-20	SJ-31-20	SJ-313-20	-	SJ-36-20	SJ-376-20
O-RING	PART#				SJ-36-20		
PACKING SET	XREF#	BD195	BD190	BD195	BD191	BD191	BD198

* See Ordering Instructions in this Section.

* WIPERS ARE NOT PART OF THE "O-RING PACKING SET."



SUPREME FISHING JARS

SIZE		2-7/8	2-7/8	3-1/2	4-1/2	5-1/2	5-1/2
CONNECTIONS		API I.F.	EUE	API I.F.	API I.F.	API REG	API REG
OUTSIDE DIA.	INCHES	4-1/4	4-1/2	4-3/4	6-1/4	6-3/4	7-3/4
INSIDE DIAM.	INCHES	2	2-3/8	2-1/4	2-1/4	2-3/4	3-1/16
COMPLETE	PART#	SJ-42	SJ-44	SJ-46	SJ-62	SJ-66	SJ-76
ASSEMBLY	XREF#	611-425	611-450	611-475	611-625	611-675	611-775

O-RINGS, WIPERS, AND PARBAK RINGS

MANDREL	PART#	G-2-229	G-2-238	G-2-232	G-2-236		G-2-348
SEAL	XREF#	568229 (1)	568238 (1)	568232 (1)	568236 (1)		568348 (1)
MANDREL EXT.	PART#				G-2-234		G-2-341
SEAL	XREF#				568234 (1)		568341 (1)
MANDREL EXT.	PART#				SJ-62-2X-W		SJ-76-2X-W
WIPER	XREF#				BD223		BD224
SPLINE BODY	PART#	G-2-238	G-2-240	G-2-242	G-2-250		G-2-362
SEAL	XREF#	568238 (1)	568240 (1)	568242 (1)	568250 (1))	568362 (1)
CONN. BODY	PART#	G-2-238	G-2-240	G-2-242	G-2-253		G-2-362
SEAL –(LARGE)	XREF#	568238 (2)	568240 (2)	568242 (2)	568253 (2))	568362 (2)
CONN. BODY	PART#	G-2-236	G-2-239	G-2-239	G-2-250)	G-2-361
SEAL – (SMALL)	XREF#	568236	568239 (1)	568239 (1)	568250 (1)		568361 (1)
CONN BODY	PART#	SJ-42-9W	SJ-44-9W	SJ46-9W	SJ-62-9W	SJ-66-9W	SJ-76-9W
WIPER	XREF#	BD76 (1)	BD79 (1)	BD72 (1)	BD73 (1)	BD77 (1)	BD74 (1)
FLOATER	PART#	G-2-238	G-2-240	G-2-242	G-2-253		G-2-362
BODY SEAL	XREF#	568238	568240	568242	568253		568362
(LARGE)	AILE #	(1)	(1)	(1)	(1)		(1)
FLOATER	PART#	(1)	G-2-238	G-2-239	G-2-250		G-2-361
BODY SEAL	XREF#	568236	568238	568239	568250		568361
(SMALL)	AILE #	(1)	(1)	(1)	(1)		(1)
FLOATER	PART#		G-2-006	G-2-006	G-2-006		G-2-006
BODY FILL	XREF#		568006	568006	568006		568006
PLUG SEAL	inter #		(2)	(2)	(2)		(2)
FLOATER SEAL	PART#	G-2-236	G-2-238	G-2-341	G-2-351		G-2-361
(LARGE)	XREF#	568236(1)	568238 (1)	568341 (1)	568351 (1)		568361 (1)
FLOATER SEAL	PART#	G-2-232	G-2-235	G-2-337	G-2-343		G-2-349
(SMALL)	XREF#	568232 (1)	568235 (1)	568337 (1)	568343 (1)		568349 (1)
SEAL BODY	PART#	G-2-231	G-2-234	G-2-234	G-2-341		G-2-347
SEAL-	XREF#	568231(1)	568234 (1)	568234 (1)	568341 (1)		568347 (1)
WASHPIPE	PART#	G-2-231	G-2-234	G-2-234	G-2-238		G-2-347
SEAL-(LARGE)	XREF#	568231(1)	568234 (1)	568234 (1)	568238 (1)		568347 (1)
WASHPIPE	PART#	G-2-229	G-2-232	G-2-232			
SEAL-(SMALL)	XREF#	568229(1)	568232 (1)	5682232 (1))		
W'PIPE BODY	PART#	G-2-238	G-2-240	G-2-242	G-2-253		G-2-362
SEAL- (LARGE).	XREF#	568238 (1)	568240(1)	568242 (1)	568253 (1)		568362 (1)
W'PIPE BODY	PART#	G-2-236	G-2-238	G-2-239	G-2-250	G-2-232	G-2-361
SEAL-(SMALL)	XREF#	568236(1)	568238 (1)	568239 (1)	568250(1)	568232 (1)	568361 (1)
FLOATER O.D.	PART#						
PARBAK RING	XREF#						
FLOATER I.D.	PART#						
PARBAK RING	XREF						
O-RING	PART#	SJ-42-20	SJ-44-20	SJ-46-20	SJ-62-20	SJ-66-20	SJ-76-20
PACKING SET	XREF#	BD196	BD199	BD192	BD193	BD197	BD194

* See Ordering Instructions in this Section.

* WIPERS ARE NOT PART OF THE "O-RING PACKING SET."



SUPREME FISHING JARS

SIZE		2-3/8	2-3/8	2-7/8	2-3/8	2-7/8	2-3/8
CONNECTIONS		EUE	API REG	PAC	I.F.	API REG	EUE
OUTSIDE DIA.	INCHES	3-1/16	3-1/8	3-1/8	3-3/4	3-3/4	3-3/4
INSIDE DIAM.	INCHES	1-1/2	1	1-1/2	1-1/2	1-1/4	1-7/8
COMPLETE	PART#	SJ-306	SJ-31	SJ-313	SJ-36	SJ-377	SJ-376
ASSEMBLY	XREF#	611-306	611-312	611-313	611-375	611-377	611-376

FILL PLUGS REQUIRED:

FLOATER	PART#	G-329	G-329	G-329	G-329	G-329	G-329
BODY-	XREF#	AG10002	AG10002	AG10002	AG10002	AG10002	AG10002
FILL PLUG		(2)	(2)	(2)	(2)	(2)	(2)

**ALL FILL PULGS REQUIRE AN O-RING, SEE THE "O-RING PART LIST ON THE PREVIOUS PAGE.

SUPREME FISHING JARS

SIZE		2-7/8	2-7/8	3-1/2	4-1/2	5-1/2	5-1/2
CONNECTIONS		API I.F.	EUE	API I.F.	API I.F.	API REG	API REG
OUTSIDE DIA.	INCHES	4-1/4	4-1/2	4-3/4	6-1/4	6-3/4	7-3/4
INSIDE DIAM.	INCHES	2	2-3/8	2-1/4	2-1/4	2-3/4	3-1/16
COMPLETE	PART#	SJ-42	SJ-44	SJ-46	SJ-62	SJ-66	SJ-76
ASSEMBLY	XREF#	611-425	611-450	611-475	611-625	611-675	611-775

FILL PLUGS REQUIRED:

FLOATER	PART#	G-329	G-329	G-329	G-329	G-329	G-329
BODY-	XREF#	AG10002	AG10002	AG10002	AG10002	AG10002	AG10002
FILL PLUG		(2)	(2)	(2)	(2)	(2)	(2)

**ALL FILL PULGS REQUIRE AN O-RING, SEE THE "O-RING PART LIST ON THE PREVIOUS PAGE.

PARTS LIST CONTINUES ON THE NEXT PAGE.



SUPREME FISHING JARS

POLYPAK PARTS LIST

GOTCO ASS'Y		SJ-306	SJ-31	SJ-313	SJ-36	SJ-377	SJ-376
POLYPAK KITS #		SJ-313-PPK	SJ-31-PPK	SJ-313-PPK	SJ-36-PPK	SJ-377-PPK	SJ-376-PPK
XREF#		BD205	BD200	BD205	BD201	BD201	BD208
MANDREL	PART#	SJ-306-2X	SJ-31-2X	SJ-313-2X	SJ-36-2X	SJ-377-2X	SJ-376-2X
EXTENSION	GOTCO#	PPK-022	PPK-022	PPK-022	PPK-018	PPK-018	PPK-015
	XREF#	BD205-2	BD205-2	BD205-2	BD201-2	BD201-2	AQ29003
	QTY	1	2	1	2	2	2
FLOATER I.D.	PART#		SJ-31-3		SJ-36-3	SJ-377-3	SJ-376-3
	GOTCO#		PPK-024		PPK-019	PPK-019	PPK-026
	XREF#		BD200-3		BD201-3	BD201-3	BD208-3
	QTY		2		2	2	2
FLOATER O.D.	PART#		SJ-31-3		SJ-36-3	SJ-377-3	SJ-376-3
	GOTCO#		PPK-025		PPK-018	PPK-018	PPK-015
	XREF#		BD200-4		BD201-2	BD201-2	AQ29003
	QTY		2		2	2	2
SPLINE BODY	PART#	SJ-306-4	SJ-31-4	SJ-313-4	SJ-36-4	SJ-377-4	SJ-376-4
	GOTCO#	PPK-021	PPK-021	PPK-021	PPK-011	PPK-011	PPK-014
	XREF#	BD205-1	BD205-1	BD205-1	BD202-3	BD202-3	BX144-3
	QTY	2	2	2	2	2	2
CONNECTOR	PART#	SJ-306-9	SJ-31-9	SJ-313-9	SJ-36-9	SJ-377-9	SJ-376-9
BODY I.D.	GOTCO#	PPK-023	PPK-024	PPK-023	PPK-019	PPK-019	PPK-026
SMALL	XREF#	BD205-3	BD200-3	BD205-3	BD201-3	BD201-3	BD208-3
	QTY	3	3	3	4	4	4
CONNECTOR	PART#						
BODY I.D.	GOTCO#						
LARGE	XREF#						
	QTY						
CONNECTOR	PART#				SJ-36-9	SJ-377-9	SJ-376-9
BODY O.D.	GOTCO#				PPK-015	PPK-015	PPK-015
	XREF#				AQ29003	AQ29003	AQ29003
	QTY				2	2	2

POLYPAK PARTS LIST CONTINUES ON THE NEXT PAGE.



SUPREME FISHING JARS

POLYPAK PARTS LIST

GOTCO ASS'Y		SJ-42	SJ-44	SJ-46	SJ-62	SJ-66	SJ-76
POLYPAK KITS #		SJ-42-PPK	SJ-44-PPK	SJ-46-PPK	SJ-62-PPK	SJ-66-PPK	SJ-76-PPK
XREF#		BD206	BD209	BD202	BD203	BD207	BD204
MANDREL	PART#	SJ-42-2X	SJ-44-2X	SJ-44-2X	SJ-62-2X		SJ-76-2X
EXTENSION	GOTCO#	PPK-014	PPK-028	PPK-010	PPK-006		PPK-002
	XREF#	BX144-3	BD209-2	BD202-2	BD203-2		BD204-2
	QTY	2	2	2	2		2
FLOATER I.D.	PART#	SJ-42-3	SJ-44-3	SJ-46-3	SJ-62-3		SJ-76-3
	GOTCO#	PPK-015	PPK-014	PPK-011	PPK-007		PPK-003
	XREF#	AQ29003	BX144-3	BD202-3	BD203-3		BD204-3
	QTY	2	2	2	2		2
FLOATER O.D.	PART#	SJ-42-3	SJ-44-3	SJ-46-3	SJ-62-3		SJ-73-3
	GOTCO#	PPK-014	PPK-028	PPK-010	PPK-006		PPK-004
	XREF#	BX144-3	BD209-2	BD202-2	BD203-2		BD204-4
	QTY	2	2	2	2		2
SPLINE BODY	PART#	SJ-42-4	SJ-44-4	SJ-46-4	SJ-62-4		SJ-76-4
	GOTCO#	PPK-010	PPK-027	PPK-009	PPK-005		PPK-001
	XREF#	BD202-2	BD209-1	BD202-1	BD203-1		BD204-1
	QTY	2	2	2	2		2
CONNECTOR	PART#	SJ-42-9	SJ-44-9	SJ-46-9	SJ-62-9		SJ-76-9
BODY I.D.	GOTCO#	PPK-015	PPK-014	PPK-011	PPK-007		PPK-003
SMALL	XREF#	AQ29003	BX144-3	BD202-3	BD203-3		BD204-3
	QTY	4	4	2	4		4
CONNECTOR	PART#			SJ-46-9			
BODY I.D.	GOTCO#			PPK-012			
LARGE	XREF#			BD202-4			
	QTY			2			
CONNECTOR	PART#	SJ-42-9	SJ-44-9	SJ-46-9	SJ-62-9		SJ-76-9
BODY O.D.	GOTCO#	PPK-014	PPK-029	PPK-013	PPK-008		PPK-002
	XREF#	BX144-3	BD209-4	BD202-5	BD203-5		BD204-2
	QTY	2	2	2	2		2



SUPREME FISHING JARS

SIZE		2-3/8	2-3/8	2-7/8	2-3/8	2-7/8	2-3/8
CONNECTIONS		EUE	API REG	PAC	I.F.	API REG	EUE
OUTSIDE DIA.	INCHES	3-1/16	3-1/8	3-1/8	3-3/4	3-3/4	3-3/4
INSIDE DIAM.	INCHES	1-1/2	1	1-1/2	1-1/2	1-1/4	1-7/8
COMPLETE	PART#	SJ-306	SJ-31	SJ-313	SJ-36	SJ-377	SJ-376
ASSEMBLY	XREF#	611-306	611-312	611-313	611-375	611-377	611-376

COPPER RINGS, NON-EXTRUSION & SEAL PROTECTOR RINGS

CONN. BODY	PART#	G-8-228	G-8-228	G-8-228	XXXX	XXXX	FJ-236-13
SEAL PROT.	XREF#	8-228	8-228	8-228	L375-34	L375-34	L375-36
RING		(2)	(2)	(2)	(2)	(2)	(2)
CONN. BODY ID	PART#	FJ-31-12	XXXX	FJ-31-12	SJ-36-9-12	SJ-36-9-12	FJ-236-12
NON-EXT. RING	XREF#	L365-32(1)	L365-30.5 (2)	L365-32(1)	BD231 (2)	BD231 (2)	L365-36 (2)
CONN. BODY OD	PART#		SJ-31-9-12A				
NON-EXT. RING	XREF#		BD240				
(LARGE)			(1).				
CONN. BODY OD	PART#	XXXX	SJ-31-9-12B	XXXXX			
NON-EXT. RING	XREF#	L366.33-5	BD250	L366-33.5			
(SMALL)		(2)	(1)	(2)			
SEAL BODY,	PART#	SJ-306-13-12	SJ-31-13-12	XXXXX	XXXX	XXXXX	SJ-376-13-12
NON-EXT. RING	XREF#	BD265-001	BD260	L365-30.25	L370-5	L370-5	BD268
		(1)	(1)	(1)	(1)	(1)	12)
SEAL BODY,	PART#	SJ-306-13-13	G-8-130	XXXXX	G-8-227	G-8-227	G-8-143
PROT. RING	XREF#	BD285-001	8-130	L375-30.25	8-227	8-227	8-143
		(1)	(1)	(1)	(1)	(1)	(1)

SUPREME FISHING JARS

SIZE		2-7/8	2-7/8	3-1/2	4-1/2	5-1/2	5-1/2
CONNECTIONS		API I.F.	EUE	API I.F.	API I.F.	API REG	API REG
OUTSIDE DIA.	INCHES	4-1/4	4-1/2	4-3/4	6-1/4	6-3/4	7-3/4
INSIDE DIAM.	INCHES	2	2-3/8	2-1/4	2-1/4	2-3/4	3-1/16
COMPLETE	PART#	SJ-42	SJ-44	SJ-46	SJ-62	SJ-66	SJ-76
ASSEMBLY	XREF#	611-425	611-450	611-475	611-625	611-675	611-775

COPPER RINGS, NON-EXTRUSION & SEAL PROTECTOR RINGS

CONN. BODY	PART#		FJ-46-13		SJ-62-9-13	 SJ-76-9-13
SEAL PROT.	XREF#		L375-41		BD273	 BD274
RING			(2)		(2)	(2)
CONN. BODY ID	PART#	SJ-42-9-12	FJ-46-12	SJ-46-9-12	SJ-62-9-12	 SJ-76-9-12
NON-EXT. RING	XREF#	BD236 (2)	L365-41 (2)	BD232 (2)	BD233 (2)	 BD234 (2)
CONN. BODY OD	PART#					
NON-EXT. RING	XREF#					
(LARGE)						
CONN. BODY OD	PART#					
NON-EXT. RING	XREF#					
(SMALL)						
SEAL BODY,	PART#	FJ-42-3-12	XXXXX	XXXXX	XXXXX	 SJ-76-13-12
NON-EXT. RING	XREF#	L370-9 (1)	L370-12(1)	L370-12 (1)	L365-44 (1)	 BD264 (1)
SEAL BODY,	PART#	FJ-42-3-13	XXXXX	XXXXX	XXXXX	 SJ-76-13-13
PROT. RING	XREF#	L376-9 (1)	L376-12(1)	L388-12 (1)	L375-44 (1)	 BD284 (1)



SUPREME FISHING JARS

SIZE		2-3/8	2-3/8	2-7/8	2-3/8	2-7/8	2-3/8
CONNECTIONS		EUE	API REG	PAC	I.F.	API REG	EUE
OUTSIDE DIA.	INCHES	3-1/16	3-1/8	3-1/8	3-3/4	3-3/4	3-3/4
INSIDE DIAM.	INCHES	1-1/2	1	1-1/2	1-1/2	1-1/4	1-7/8
COMPLETE	PART#	SJ-306	SJ-31	SJ-313	SJ-36	SJ-377	SJ-376
ASSEMBLY	XREF#	611-306	611-312	611-313	611-375	611-377	611-376

Jar Oil Required (Gallons per Assembly)

JAR OIL (Lube)	PART#	SJ-FL-1	SJ-FL-5	SJ-FL-20	SJ-FL-55	SJ-FL-55	SJ-FL-55
REQUIRED	XREF#	49844-A	49844-B	49844-C	49844-D	49844-D	49844-D
PER ASSEMBLY		1 Gallon	5 Gallons	20 Gallons	55 Gallons	55 Gallons	55 Gallons

SUPREME FISHING JARS

SIZE CONNECTIONS		2-7/8 API I.F.	2-7/8 EUE	3-1/2 API I.F.	4-1/2 API I.F.	5-1/2 API REG	5-1/2 API REG
OUTSIDE DIA.	INCHES	4-1/4	4-1/2	4-3/4	6-1/4	6-3/4	7-3/4
INSIDE DIAM.	INCHES	2	2-3/8	2-1/4	2-1/4	2-3/4	3-1/16
COMPLETE	PART#	SJ-42	SJ-44	SJ-46	SJ-62	SJ-66	SJ-76
ASSEMBLY	XREF#	611-425	611-450	611-475	611-625	611-675	611-775

Jar Oil Required (Gallons per Assembly)

JAR OIL (Lube)	PART#	SJ-FL-55	SJ-FL-55	SJ-FL-55	SJ-FL-55	SJ-FL-55	SJ-FL-55
JAR OIL (Lube)	PAR1#	SJ-FL-33	SJ-FL-33	SJ-FL-33	SJ-FL-33	SJ-FL-33	SJ-FL-33
REQUIRED	XREF#	49844-D	49844-D	49844-D	49844-D	49844-D	49844-D
PER ASSEMBLY		55 Gallons					

SERVICE KIT

Service Kit, Complete Assembly	Gotco P/N: SK-100	Service Kit is required for
Consists of:	Logan Ref. P/N: 26000-055	filling the Jar with oil.
Seal Protector Ring Installation Tool	Hose Fitting, 1/4'	" -19 NPT Pin
O-Ring Installation Tool	Exhaust Hose, 6 l	Ft.
Fill Plug Wrench, T30 Torx Head	Pump Hose	
Fill Plug Wrench, Allen Head	Volume Pump	
Pipe Nipple, 1/4" x 1"	Metal Box	
Line Filter	Fill Plug Adapter	r, 7/16" -20 NF
1/4" Male Coupler	Fill Plug Adapter	r, 5/8"-18 NF
1/4" Female Coupler	O-Ring G-2-010	
3/8" Box x 1/4" Galvanized Box Coupler	O-Ring, 70 Duro;	; G-2-005
1/8" Box x 1/4" Pin Hex Bushing		

LEGAL NOTICE:

All references to "Logan Oil Tool" part numbers in this manual are for the sole purpose of identifying interchangeable parts. Referencing these parts and tools does not imply that Gotco International is in any way affiliated with Logan Oil Tools. Gotco International does not represent any Logan Oil Tool Products.



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