



SECTION VI: 'BHP' INSTRUMENT HANGERS and ACCESSORIES

2013

JP042613

REBCO

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'BHP' (Bottom Hole Pressure) is a vital part of Wireline Operations. Monitoring the 'BHP' requires specialty tools. This Section identifies these Tools for the Wireline Operator.



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Product Code: 33

Type 'ROTFSB' Instrument Hanger Assembly: 2 3/8" - 4 1/2"

Rebco Type 'ROTFSB' Instrument Hanger is used to land and lock geophysical instruments in Type 'BF' Landing Nipples respectively, to allow recording of reservoir data.

The Instrument Hanger Assembly consists of Type 'ROTS-1/2' Lock Mandrel Sub-Assembly (DET 1) and a Hanger Sub (DET 2); offered with Amerada (3/4" - 16) Box connection and/or Sucker Rod (15/16" - 10) Box connection.



NOM SIZE	SEAL BORE SIZE	ASSEMBLY NUMBER		LOCK MANDREL SUB-ASS'Y	HANGER SUB	
		BOX THREAD			BOX THREAD	
		w/3/4" - 16	w/15/16" - 10		3/4" - 16	15/16" - 10
2 3/8"	1.781"	33251401217800	33251401217801	10142202370	330117810	330117800
	1.813"	33251401218100	33251401218101		330118110	330118100
	1.875"	33251401218700	33251401218701		330118710	330118700
2 7/8"	2.250"	33251401222500	33251401222501	10142202870	330122510	330122500
	2.313"	33251401223100	33251401223101		330123110	330123100
3 1/2"	2.562"	33251401225600	33251401225601	10142202560	330125610	330125600
	2.750"	33251401227500	33251401227501		330127510	330127500
	2.813"	33251401228100	33251401228101	10142203500	330128110	330128100
4 1/2"	3.688"	33251401136800	33251401136801	10141204500	330136810	330136800
	3.750"	33251401137500	33251401137501		330137510	330137500
	3.813"	33251401138100	33251401138101		330138110	330138100

Type 'ROTFWB' Instrument Hanger Assembly: 2 3/8" - 4 1/2"

Rebco Type 'ROTFWB' Instrument Hanger is used to land and lock geophysical instruments in Type 'BF' Landing Nipples respectively, to allow recording of reservoir data.

The Instrument Hanger Assembly consists of Type 'ROTW-1/2' Lock Mandrel Sub-Assembly (DET 1) and a Hanger Sub (DET 2); offered with Amerada (3/4" - 16) Box connection and/or Sucker Rod (15/16" - 10) Box connection.



NOM SIZE	SEAL BORE SIZE	ASSEMBLY NUMBER		LOCK MANDREL SUB-ASS'Y	HANGER SUB	
		BOX THREAD			BOX THREAD	
		w/3/4" - 16	w/15/16" - 10		3/4" - 16	15/16" - 10
2 3/8"	1.781"	33251701217800	33251701217801	10172202370	330117810	330117800
	1.813"	33251701218100	33251701218101		330118110	330118100
	1.875"	33251701218700	33251701218701		10172201870	330118710
2 7/8"	2.250"	33251701222500	33251701222501	10172202250	330122510	330122500
	2.313"	33251701223100	33251701223101	10172202310	330123110	330123100
3 1/2"	2.562"	33251701225600	33251701225601	10172202560	330125610	330125600
	2.750"	33251701227500	33251701227501	10172202750	330127510	330127500
	2.813"	33251701228100	33251701228101	10172202810	330128110	330128100
4 1/2"	3.688"	33251701136800	33251701136801	10171203680	330136810	330136800
	3.750"	33251701137500	33251701137501	10171203750	330137510	330137500
	3.813"	33251701138100	33251701138101	10171203810	330138110	330138100



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Type 'ROTRZB' Instrument Hanger Assembly: 2 3/8" - 4 1/2"

Rebco Type 'ROTRZB' Instrument Hanger is used to land and lock geophysical instruments in Type 'BR' Landing Nipples respectively, to allow recording of reservoir data.

The Instrument Hanger Assembly consists of Type 'ROTZ-1/2' Lock Mandrel Sub-Assembly (DET 1) and a Hanger Sub (DET 2); offered with Amerada (3/4" - 16) Box connection and/or Sucker Rod (15/16" - 10) Box connection.



NOM SIZE	SEAL BORE SIZE	ASSEMBLY NUMBER		LOCK MANDREL SUB-ASS'Y	HANGER SUB	
		BOX THREAD			BOX THREAD	
		w/3/4" - 16	w/15/16" - 10		3/4" - 16	15/16" - 10
2 3/8"	1.781"	33132201217800	33132201217801	10222202370	330117810	330117800
	1.813"	33132201218100	33132201218101		330118110	330118100
	1.875"	33132201218700	33132201218701		330118710	330118700
2 7/8"	2.250"	33132201222500	33132201222501	10222202870	330122510	330122500
	2.313"	33132201223100	33132201223101		330123110	330123100
3 1/2"	2.562"	33132201225600	33132201225601	10222202560	330125610	330125600
	2.750"	33132201227500	33132201227501	10222203500	330127510	330127500
	2.813"	33132201228100	33132201228101		330128110	330128100
4 1/2"	3.688"	33132201136800	33132201136801	10221204500	330136810	330136800
	3.750"	33132201137500	33132201137501		330137510	330137500
	3.813"	33132201138100	33132201138101		330138110	330138100

NOTE: *Rebco* Type 'ROTFSB', 'ROTFWB' and 'ROTRZB' Instrument Hangers are available in Sizes not shown and variety of Materials suitable for the Well Conditions.

Rebco Type 'ROTTSB' Instrument Hanger Assembly is available in Sizes not shown and variety of Materials suitable for the Well Conditions.



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RUNNING and PULLING ACCESSORIES for 'ROTFSB' and 'ROTTSB' Instrument Hanger

NOM SIZE	SEAL BORE SIZE	RUNNING (NO-GO LOCATING)			PULLING	
		'ROTC-1'	LOCATING RING	'ROTA' SHANK	'ROTA' PROBE ^{*1}	PULLING TOOL ^{*2}
2 3/8"	1.781"	41021202370	1680117900	4901196764	4100022370	4013012000
	1.813"		1680118000			
	1.875"		1680118100			
2 7/8"	2.250"	41021202870	1680118200	4901196765	4100022870	4013012500
	2.313"		1680118300			
	2.562"		1680119100			
3 1/2"	2.750"	41021203500	1680118400	4901196766	4100023500	4013013000
	2.813"		1680118500			
	3.688"		2200194500			
4 1/2"	3.750"	41021204500	2200194510	4901221646	4100024500	4013014000
	3.813"		2200194600			

RUNNING and PULLING ACCESSORIES for 'ROTFWB' and 'ROTRZB' Instrument Hanger

NOM SIZE	SEAL BORE SIZE	RUNNING	PULLING	
		'ROTC-1' ^{*3}	'BB' PROBE ^{*4}	PULLING TOOL ^{*2}
2 3/8"	1.781" - 1.875"	41021202370	4101012371	4013012000
2 7/8"	2.250"	41021202870	4101012871	4013012500
	2.313"			
3 1/2"	2.562"	41021202870	4101012560	4013012500
	2.750"	41021203500	4101013501	4013013000
	2.813"			
4 1/2"	3.688" - 3.813"	41021204500	4101014500	4013014000

- NOTES:**
- *1 - 'ROTA' or 'ROTAC' can be used
 - *2 - 'ROTRB', 'ROTSB', and 'ROTJDC' Pulling Tools can be used
 - *3 - To run 'ROTFWB' and 'ROTRZB' Instrument Hangers, 'ROTC-1' Running Tool should be with Thread Protector
 - *4 - 'BB' Probe comes in two lengths (Short and Long) to composite for some Lock Mandrel Sub-Assemblies which are available with different lengths of the Fishing Neck.

For Accessories shown above, see Sections where these Tools are listed.



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Product Code: 33

Type 'RNH' and 'ROH' Instrument Hanger Assembly: 2 3/8" - 5 1/2"

Rebco Type '**RNH**' Instrument Hanger Assembly is used to land and lock geophysical instruments in Type '**ROTRN**' Landing Nipples respectively, to allow recording of reservoir data.

Rebco Type '**ROH**' Instrument Hanger Assembly is used to land and lock geophysical instruments in Type '**ROTR**' Landing Nipples respectively, to allow recording of reservoir data.

The Instrument Hanger Assembly consists of **Lock Mandrel Assembly (DET 1)**, **Protector Sleeve (DET 3)** and a **Hanger Sub (DET 2)**; offered with Amerada (3/4" - 16) Box connection and/or Sucker Rod (15/16" - 10) Box connection.

NOTE: Lock Mandrel does not require Seal Stack or 'O' Ring Seal; instead, a Protector Sleeve is supplied to minimize the damage to the Packing Mandrel.

A list of Assembly Sizes shown are not limited to the availability of other Sizes required, or Materials to suit well conditions. Please specify when ordering.

RUNNING AND PULLING TOOLS REQUIRED: Select by Nominal Size - Seal Bore Size

Running Tool: Type '**ROTR**', Section III, Product Code 41, Page 5, 6, 7

Pulling Tool: Type '**ROTGR**', Section IV, Product Code 40, Page 20, 21

Type 'RNH' Instrument Hanger Assembly



NOM SIZE	SEAL BORE SIZE	ASSEMBLY NUMBER		LOCK MANDREL ASSEMBLY	PROTECTOR SLEEVE	HANGER SUB	
		BOX THREAD				BOX THREAD	
		w/3/4" - 16	w/15/16" - 10			3/4" - 16	15/16" - 10
2 3/8"	1.781"	3313100617830	3313100617831	10131017830	33004	33201317830	33201317831
	1.875"	3313100618730	3313100618731	18131018730	33006	33201318730	33201318731
	2.125"	3313100621230	3313100621231	10131021230	33007	33201321230	33201321231
2 7/8"	2.188"	3313100621830	3313100621831	10131021830	33008	33201321830	33201321831
	2.313"	3313100623130	3313100623131	18131023130	330010	33201323130	33201323131
3 1/2"	2.562"	3313100625630	3313100625631	10131025630	330011	33201325630	33201325631
	2.750"	3313100627530	3313100627531	10131027530	330012	33201327530	33201327531
	2.813"	3313100628130	3313100628131	10131028130	330012	33201328130	33201328131
4" 4 1/2"	3.437"	3313100634330	3313100634331	18131034330	330020	33201334330	33201334331
	3.688"	3313100636830	3313100636831	18131036830	330014	33201336830	33201336831
	3.813"	3313100638130	3313100638131	18131038130	330015	33201338130	33201338131
5" 5 1/2"	4.313"	3313100643130	3313100643131	18131043130	330017	33201343130	33201343131
	4.562"	3313100645630	3313100645631	18131045630	330018	33201345630	33201345631

Material - Norm Alloy (NACE MR-01-75, 1980 Rev.)

Parts for Lock Mandrels are available, see [Section XIV](#)



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Type 'ROH' Instrument Hanger Assembly



NOM SIZE	SEAL BORE SIZE	ASSEMBLY NUMBER		LOCK MANDREL ASSEMBLY	PROTECTOR SLEEVE	HANGER SUB	
		BOX THREAD				BOX THREAD	
		w/3/4" - 16	w/15/16" - 10			3/4" - 16	15/16" - 10
2 3/8"	1.781"	3313200617830	3313200617831	10132017830	33004	33201317830	33201317831
	1.875"	3313200618730	3313200618731	18132018730	33006	33201318730	33201318731
	2.125"	3313200621230	3313200621231	10132021230	33007	33201321230	33201321231
2 7/8"	2.188"	3313200621830	3313200621831	10132021830	33008	33201321830	33201321831
	2.313"	3313200623130	3313200623131	18132023130	330010	33201323130	33201323131
3 1/2"	2.562"	3313200625630	3313200625631	10132025630	330011	33201325630	33201325631
	2.750"	3313200627530	3313200627531	10132027530	330012	33201327530	33201327531
	2.813"	3313200628130	3313200628131	10132028130	330012	33201328130	33201328131
4"	3.437"	3313200634330	3313200634331	18132034330	330020	33201334330	33201334331
	3.688"	3313200636830	3313200636831	18132036830	330014	33201336830	33201336831
4 1/2"	3.813"	3313200638130	3313200638131	18132038130	330015	33201338130	33201338131
5"	4.313"	3313200643130	3313200643131	18132043130	330017	33201343130	33201343131
	4.562"	3313200645630	3313200645631	18132045630	330018	33201345630	33201345631

Material - Norm Alloy (NACE MR-01-75, 1980 Rev.)

Parts for Lock Mandrels are available, see [Section XIV](#)

Product Code: 33

Type 'XNH' and 'XOH' Instrument Hanger Assembly: 2 3/8" - 5 1/2"

Rebco Type 'XNH' Instrument Hanger Assembly is used to land and lock geophysical instruments in Type 'ROTXN' Landing Nipples respectively, to allow recording of reservoir data.

Rebco Type 'XOH' Instrument Hanger Assembly is used to land and lock geophysical instruments in Type 'ROTX' Landing Nipples respectively, to allow recording of reservoir data.

The Instrument Hanger Assembly consists of **Lock Mandrel Assembly (DET 1)**, **Protector Sleeve (DET 3)** and a **Hanger Sub (DET 2)**; offered with Amerada (3/4" - 16) Box connection and/or Sucker Rod (15/16" - 10) Box connection.

NOTE: Lock Mandrel does not require Seal Stack or 'O' Ring Seal; instead, a Protector Sleeve is supplied to minimize the damage to the Packing Mandrel.

A list of Assembly Sizes shown are not limited to the availability of other Sizes required, or Materials to suit well conditions. Please specify when ordering.

RUNNING AND PULLING TOOLS REQUIRED: Select by Nominal Size - Seal Bore Size

Running Tool: Type 'ROTX', [Section III](#), [Product Code 41](#), Page 9-10

Pulling Tool: Type 'ROTGR', [Section IV](#), [Product Code 40](#), Page 20, 21



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Type 'XNH' Instrument Hanger Assembly



NOM SIZE	SEAL BORE SIZE	ASSEMBLY NUMBER		LOCK MANDREL ASSEMBLY	PROTECTOR SLEEVE	HANGER SUB	
		BOX THREAD				BOX THREAD	
		w/3/4" - 16	w/15/16" - 10			3/4" - 16	15/16" - 10
1.900"	1.500"	3318100615030	3318100615031	10181015030	33001	33201815030	33201815031
2 1/16"	1.625"	3318100616230	3318100616231	10181016230	33002	33201816230	33201816231
2 3/8"	1.875"	3318100618730	3318100618731	10181018730	33005	33201818730	33201818731
2 7/8"	2.313"	3318100623130	3318100623131	10181023130	33009	33201823130	33201823131
3 1/2"	2.750"	3318100627530	3318100627531	10181027530	330012	33201827530	33201827531
	2.813"	3318100628130	3318100628131	10181028130	330012	33201828130	33201828131
	2.875"	3318100628730	3318100628731	10181028730	330012	33201828730	33201828731
4"	3.313"	3318100633130	3318100633131	18181033130	330013	33201833130	33201833131
4 1/2"	3.813"	3318100638130	3318100638131	18181038130	330015	33201838130	33201838131
5"	4.313"	3318100643130	3318100643131	18181043130	330017	33201843130	33201843131
5 1/2"	4.562"	3318100645630	3318100645631	18181045630	330018	33201845630	33201845631

Material - Norm Alloy (NACE MR-01-75, 1980 Rev.)

Parts for Lock Mandrels are available, see [Section XIV](#)

Type 'XOH' Instrument Hanger Assembly



NOM SIZE	SEAL BORE SIZE	ASSEMBLY NUMBER		LOCK MANDREL ASSEMBLY	PROTECTOR SLEEVE	HANGER SUB	
		BOX THREAD				BOX THREAD	
		w/3/4" - 16	w/15/16" - 10			3/4" - 16	15/16" - 10
1.900"	1.500"	3318200615030	3318200615031	10182015030	33001	33201815030	33201815031
2 1/16"	1.625"	3318200616230	3318200616231	10182016230	33002	33201816230	33201816231
2 3/8"	1.875"	3318200618730	3318200618731	10182018730	33005	33201818730	33201818731
2 7/8"	2.313"	3318200623130	3318200623131	10182023130	33009	33201823130	33201823131
3 1/2"	2.750"	3318200627530	3318200627531	10182027530	330012	33201827530	33201827531
	2.813"	3318200628130	3318200628131	10182028130	330012	33201828130	33201828131
	2.875"	3318200628730	3318200628731	10182028730	330012	33201828730	33201828731
4"	3.313"	3318200633130	3318200633131	18182033130	330013	33201833130	33201833131
4 1/2"	3.813"	3318200638130	3318200638131	18182038130	330015	33201838130	33201838131
5"	4.313"	3318200643130	3318200643131	18182043130	330017	33201843130	33201843131
5 1/2"	4.562"	3318200645630	3318200645631	18182045630	330018	33201845630	33201845631

Material - Norm Alloy (NACE MR-01-75, 1980 Rev.)

Parts for Lock Mandrels are available, see [Section XIV](#)



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Product Code: 33

Type '**ROTRNS**' Soft Set Bomb (Instrument) Hanger Assembly: w/3/4" - 16 Box Thread

Rebco Type '**ROTRNS**' Soft Set Bomb (Instrument) Hanger is designed to set Instruments into Type '**ROTR**' and Type '**ROTRN**' Landing Nipples of the same size. The Soft Set Bomb (Instrument) Hanger does not require jarring to be set into the Landing Nipple.

Two types of **Running Tools** are offered: **Hydraulic** or **Mechanical**. The choice is determined by the Operator or the Well conditions.



NOM SIZE	SEAL BORE SIZE	ASSEMBLY NUMBER	RUNNING TOOL		PULLING TOOL Type ' ROTGR '	PULLING PRONG
			HYDRAULIC	MECHANICAL		
			Type ' ROTHR '	Type ' ROTMR '		
2 3/8"	1.875"	3313101418730	4106132000	4109131870	40051318700	49111211
	2.125"	3313101421230				
2 7/8"	2.188"	3313101421830	4106132500	4109132310	40051321800	49111212
	2.313"	3313101423130			40051323100	
3 1/2"	2.562"	3313101425630	4106132500	4109132310	40051323100	49111212
	2.750"	3313101427530	4106132000	4109132750	40051327500	49111213
	2.813"	3313101428130	4106132000			
4 1/2"	3.688"	3313101436830	4106133500	4109133500	40051331202	49111380
	3.813"	3313101438130	4106134500	4109134500	40051336804	49111231

Material - Norm Alloy (NACE MR-01-75, 1980 Rev.)

NOTE: *Rebco* Type '**ROTRNS**' Instrument Hangers are available in Sizes not shown and variety of Materials suitable for the Well Conditions.

Product Code: 33

Type '**ROTXNS**' Soft Set Bomb (Instrument) Hanger Assembly: w/3/4" - 16 Box Thread

Rebco Type '**ROTXNS**' Soft Set Bomb (Instrument) Hanger is designed to set Instruments into Type '**ROTX**' and Type '**ROTXN**' Landing Nipples of the same size. The Soft Set Bomb (Instrument) Hanger does not require jarring to be set into the Landing Nipple.

Two types of **Running Tools** are offered: **Hydraulic** or **Mechanical**. The choice is determined by the Operator or the Well conditions.

NOTE: *Rebco* Type '**ROTXNS**' Instrument Hangers are available in Sizes not shown and variety of Materials suitable for the Well Conditions.



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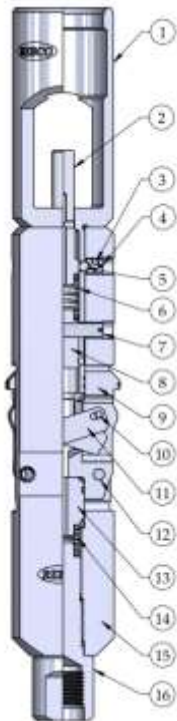
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Type 'ROTXNS' Soft Set Bomb (Instrument) Hanger Assembly: w/3/4" - 16 Box Thread

NOMINAL SIZE	2"	2 1/2"	3"	3"
NIPPLE SEAL BORE SIZE	1.875"	2.313"	2.750"	2.813"
ASSEMBLY NUMBER	3318101418730	3318101423130	3318101427530	3318101428130



DET	PART NAME	QTY	PART NO	PART NO	PART NO	PART NO
1	FISHING NECK	1	3318131	3318160	331898	331898
2	LOCK	1	3318132	3318132	331891	331891
3 *	BALL	2	1834010	1834010	1834010	1834010
4	BALL RETAINER	2	3318104	3318104	331892	331892
5 *	BALL	2	1836014	1836014	1836018	1836018
6	SPRING	1	9000130	9000130	9000132	9000132
7	PIN	1	3318102	3318102	331897	331897
8	SUPPORT	1	3318135	3318135	331896	331896
9	DOG SET	1	331865	331870	331872	3318153
10	LATCH PIN	2	3318137	3318161	3318110	3318110
11	LATCH	2	3318138	3318163	331893	3318156
12	DOG PIN	2	3318139	3318162	3318101	3318101
13	PLUNGER	1	3318140	3318140	331894	331894
14	SPRING	1	9000131	9000131	9000131	9000131
15	HOUSING	1	3318141	3318159	3318100	3318158
16	BOTTOM SUB	1	3318146	3318148	3318150	3318150
REDRESS KIT (* Included as part of Kit)			3318101424200	3318101424250	3318101424300	3318101424300

ENGINEERING DATA:

MAXIMUM OD – No-Go	1.865"	2.307"	2.745"	2.807"
BOTTOM THREAD CONNECTION	3/4" - 16	3/4" - 16	3/4" - 16	3/4" - 16
FISHING NECK ID	1.38"	1.81"	2.31"	2.31"
LENGTH	15.5"	15.75"	17.18"	17.18"
WEIGHT lbs (kg)	5.7 (2.58)	7.7 (3.49)	11.7 (5.31)	12.0 (5.44)
MATERIAL*	Norm Alloy*	Norm Alloy*	Norm Alloy*	Norm Alloy*

ACCESSORIES:

Running Tool	Mechanical - Type 'ROTMR'	4109131870	4109132310	4109132750	4109132750
	Hydraulic - Type 'ROTHR'	4106132000	4106132500	4106133000	4106133000
Pulling Tool – Type 'ROTGR'		40051318700	40051323100	40051327500	40051327500
Pulling Prong		49111211	49111212	49111213	49111213

Material - Norm Alloy (NACE MR-01-75, 1980 Rev.)

Note: Bottom thread connection with 15/16" - 10 available, please specify.



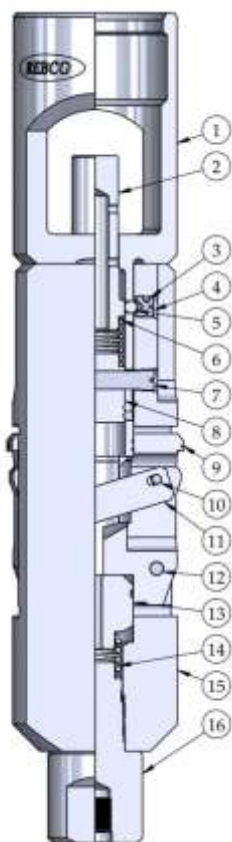
SECTION VI: 'BHP' INSTRUMENT HANGERS and ACCESSORIES

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JP042613

REBCO

Type 'ROTXNS' Soft Set Bomb (Instrument) Hanger Assembly: Continued



NOMINAL SIZE	4 1/2"
NIPPLE SEAL BORE SIZE	3.813"
ASSEMBLY NUMBER	3318101438130

DET	PART NAME	QTY	PART NO
1	FISHING NECK	1	3318175
2	LOCK	1	3318180
3 *	BALL	2	1834010
4	BALL RETAINER	2	331892
5 *	BALL	2	1836018
6	SPRING	1	9000133
7	PIN	1	3318182
8	SUPPORT	1	3318181
9	DOG SET	1	3318178
10	LATCH PIN	2	3318183
11	LATCH	2	3318165
12	DOG PIN	2	3318185
13	PLUNGER	1	3318168
14	SPRING	1	9000134
15	HOUSING	1	3318177
16	BOTTOM SUB	1	3318171
REDRESS KIT (* Included as part of Kit)			3318101424381

ENGINEERING DATA:

MAXIMUM OD - No-Go	3.807"
BOTTOM THREAD CONNECTION	3/4" - 16
FISHING NECK ID	3.12"
LENGTH	19.25"
WEIGHT lbs (kg)	25.6 (11.61)
MATERIAL*	Norm Alloy*

ACCESSORIES:

Running Tool	Mechanical - Type 'ROTMR'	4109134500
	Hydraulic - Type 'ROTHR'	4106134500
Pulling Tool - Type 'ROTGR'		40051336804
Pulling Prong		49111231

*Norm Alloy (NACE MR-01-75, 1980 Rev.)

Note: Bottom thread connection with 15/16" - 10 available, please specify.



SECTION VI: 'BHP' INSTRUMENT HANGERS and ACCESSORIES

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REBCO

'BHP ACCESSORIES:

Product Code: 110



Type '**FO**' Collar Stop Tool Assembly as a Stop: **1 1/4" – 4 1/2"**

Rebco Type '**FO**' Collar Stop Tool is designed to locate in the collar recess of the API Upset and Non-upset Tubing. The instruments can be set on top.

The **Collar Stop** is lowered in the tubing to the desired depth; by lifting upwards, the springs are tripped, allowing the Collar Stop Collet to expand into the collar recess. Downward jarring on the Fishing Neck will free the Running Tool and at the same time force the body to lock the Collet in place.

The special feature of *Rebco's* Type '**FO**' Collar Stop is that there is no welding. The Collet is machined from one piece of stock material.

See [Section II, Service Tools, Page II-23](#) for Selection.

Product Code: 164



Type '**SS**' Tubing Slip Stop Assembly as a Stop: **1 1/4" – 4 1/2"**

Rebco Type '**SS**' Tubing Slip Stop is designed to be set in the API or Premium Tubing. The instruments can be set on top.

The **Slip Stop** is lowered in the tubing to the desired depth; a rapid downward movement expands the Slips and sets the Stop. Downward jarring drives the serrated Slips against the tubing wall and releases the Running Tool.

See [Section II, Service Tools, Page II-24](#) for Selection.

Product Code: 33



Type '**DO**' Collar Lock Assembly as a Stop: **2" – 3"**

Rebco Type '**DO**' Collar Lock is set into the Tubing Collar to act as an anchor for instruments and other tools to rest upon.

Running Tools and Retrieving Tools are available, please enquire.



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REBCO

Product Code: 114

Rebco Type '**RQHS**' Hook Type Quick Lock System was primarily designed to be a convenience Tool. Using these Tools eliminates the conventional makeup of the Tool String. The Hook(s) feature can be considerable time savers when several wells in the field are to be surveyed.

Type 'A' – 15/16" – 10 PIN to 'RQHS' and 3/4" – 16 PIN to 'RQHS'



PART NUMBER	ENGINEERING					
	MAX OD	PIN CONNECTION	FISHING NECK	LENGTH	MATERIAL	WEIGHT Lbs (kgs)
114002	1.25"	15/16" – 10	1.187"	5.00"	Stainless	1.0 (.5)
114005					Alloy	
1140020					Inconel®	
114003	1.25"	3/4" – 16 (Amerada)	1.187"	5.00"	Stainless	1.0 (.5)
114004					Alloy	
1140021					Inconel®	

Type 'B' – 15/16" – 10 BOX to 'RQHS' and 3/4" – 16 BOX to 'RQHS'



PART NUMBER	ENGINEERING					
	MAX OD	BOX CONNECTION	FISHING NECK	LENGTH	MATERIAL	WEIGHT Lbs (kgs)
114001	1.25"	15/16" – 10	None	4.00"	Stainless	.8 (.35)
114009					Alloy	
1140022					Inconel®	
114006	1.25"	3/4" – 16 (Amerada)	None	4.00"	Stainless	.8 (.35)
114007					Alloy	
1140023					Inconel®	

Type 'A' & 'B' – 15/16" – 10 to 'RQHS' and 3/4" – 16 to 'RQHS'



ASS'Y NUMBER	ENGINEERING					
	MAX OD	PIN to BOX CONNECTION	FISHING NECK	LENGTH	MATERIAL	WEIGHT Lbs (kgs)
11406201215	1.25"	15/16" – 10	1.187"	5.00"	Stainless	1.8 (.85)
11406201210					Alloy	
11406201218					Inconel®	
11406201225	1.25"	3/4" – 16 (Amerada)	1.187"	5.00"	Stainless	1.8 (.85)
11406201220					Alloy	
11406201228					Inconel®	

Note: Any combination is available, also, 3/4" to 1 1/4" Nominal Size Stem can be ordered with '**RQHS**' Connection in various lengths.

CAUTION: Recommended **MAXIMUM PULL** to be less than shown; before the **Hook** stretches to failure. Jarring should be avoided.

Stainless	1,600 lbs (725 kgs)
Alloy	2,100 lbs (952 kgs)
Inconel®	2,700 lbs (1,225 kgs)



SECTION VI: 'BHP' INSTRUMENT HANGERS and ACCESSORIES

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REBCO

Product Code: 113

Type 'BW' Bomb Well (Instrument Carrier) Assembly is designed to protect the instruments from being damaged. The spring in the Bomb Well gives the instrument (Suspended) added protection from jarring and impact during wireline operation.

When ordering it is important to know the **OD** and the **length** of the Instrument.



Product Code: 111

Type 'JO' Unlatching Tool Assembly with 'J' Head is used to set instruments into the well bore on top of pre-set Stop.

To RUN: Attach the 'J' Head to the Instrument, or Instrument Carrier (Bomb Well). The running tool's 'JAY' slot allows the 'J' Head to be unlatched by the weight of the tool string and left down hole. 'J' Head's fishing neck is used to retrieve the instruments at later date with appropriate Pulling Tool.

NOMINAL SIZE	2"	
ASSEMBLY NUMBER For 2 3/8" - 3 1/2" Tubing Size	4107202000	4107202001

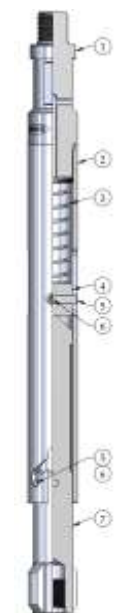
DET	PART NAME	QTY	PART NO	PART NO
1	TOP SUB	1	111001	111002
2	SPRING	1	9000182	9000182
3	'J' CYLINDER	1	111003	111004
4	PLUNGER	1	111005	111006
5	PIN	2	9111441500	9111441620
6	SET SCREW (N/S)	2	185506210312	185506210312
7	'J' HEAD	1	111007	111008

ENGINEERING DATA: **RUNNING TOOL * (DET 1-6)**

MAXIMUM OD	1.50"	1.62"
PIN THREAD CONNECTION	15/16" - 10	15/16" - 10
FISHING NECK	1.375"	1.375"
LENGTH	15.19"	15.19"
MATERIAL	Alloy	Alloy

ENGINEERING DATA: **'J' HEAD (DET 7)**

FISHING NECK	1.187"	1.375"
MAXIMUM OD	1.75"	1.75"
LENGTH	9.12"	9.12"
BOX THREAD CONNECTION	3/4" - 16	3/4" - 16



Assembly



'J' Head

Running Tool: See **Section III**, Page III-16 for selection of Sizes

'J' Heads with 15/16" - 10 Box Thread are available.



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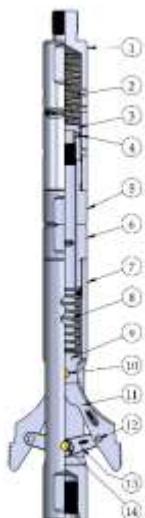
REBCO

Product Code: 110

Type 'HD' Hold-Down (No-Blow) Tool Assembly: 1 1/2" - 5 1/2" with Amerada Connections

Rebco Type 'HD' Hold-Down Tool, or sometimes called **No-Blow Tool**, stops the instruments from being blown up the tubing when the well is flowing. The Tool also reduces the number of Stems required to keep the instruments in place.

NOMINAL SIZE	1 1/2"	2 3/8"	2 7/8"	3 1/2"
ASSEMBLY NUMBER	11006032060	11006031870	11006032870	11006033500



DET	PART NAME	QTY	PART NO	PART NO	PART NO	PART NO
1	TOP SUB	1	110068	110068	110068	110068
2	SPRING	1	9000189	9000189	9000189	9000189
3	NUT	1	110067	110067	110067	110067
4	PIN	1	18810208751	18810208751	18810208751	18810208751
5	TOP RETAINER	1	110066	110066	110066	110066
6	HOUSING RETAINER	1	110064	110064	110064	110064
7	BODY HOUSING	1	110061	110061	1100617	1100611
8	SPRING	1	9000189	9000189	9000189	9000190
9	PUSH ROD	1	110065	110065	110065	1100619
10	DOG AXLE	1	9110140905	9110140905	9110140905	9110140905
11	DOG	2	1100618	110062	1100613	1100614
12	CAM PIN	2	110069	110069	110069	110069
13	CAM	2	110063	110063	1100612	1100616
14	CAM AXLE	1	9110131250	9110131250	9110131250	9110131250

ENGINEERING DATA:

MAXIMUM OD	BODY	1.25"	1.25"	1.25"	1.25"
	DOGS RETRACTED	1.25"	1.28"	1.29"	1.49"
	DOGS EXPANDED	1.81"	2.30"	2.51"	3.27"
PIN-BOX THREAD CONNECTION		3/4" - 16	3/4" - 16	3/4" - 16	3/4" - 16
LENGTH	DOGS RETRACTED	15.49"	15.49"	15.84"	15.85"
	DOGS EXPANDED	14.86"	14.86"	14.86"	14.86"
WEIGHT REQUIRED TO RETRACT DOGS - lbs (kg)		9.0 (4.08)	9.0 (4.08)	10.0 (4.54)	11.0 (4.99)
MATERIAL		Stainless	Stainless	Stainless	Stainless
WEIGHT - lbs (kg)		4.0 (1.81)	4.0 (1.81)	4.0 (1.81)	3.9 (1.77)

NOMINAL SIZE	4 1/2"	5 1/2"
ASSEMBLY NUMBER	11006034500	11006035500



DET	PART NAME	QTY	PART NO	PART NO
1	TOP SUB	1	1100620	1100620
2	SPRING	2	900025	900025
3	NUT	1	1100623	1100623
4	TOP RETAINER	1	1100621	1100621
5	HOUSING RETAINER	1	1100622	1100622
6	BODY HOUSING	1	1100625	1100625
7	PUSH ROD	1	1100624	1100624
8	DOG AXLE	2	9110141050	9110141050
9	CAM	4	1100626	1100633
10	DOG	4	1100615	1100632
11	CAM PIN	4	9111430500	9111430500
12	BOLT RETAINER	2	18581111250	18581111250

ENGINEERING DATA:

MAXIMUM OD	BODY	1.75"	1.75"
	DOGS RETRACTED	1.92"	1.97"
	DOGS EXPANDED	4.29"	5.22"
PIN-BOX THREAD CONNECTION		3/4" - 16	3/4" - 16
LENGTH	DOGS RETRACTED	26.2"	26.2"
	DOGS EXPANDED	24.5"	24.5"
WEIGHT REQUIRED TO RETRACT DOGS - lbs (kg)		25-30 (11.4)	25-30 (11.4)
MATERIAL		Stainless	Stainless
WEIGHT - lbs (kg)		12.8 (5.81)	12.8 (5.81)



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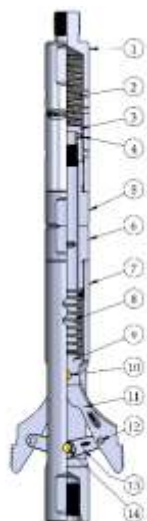
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REBCO

Type 'HD' Hold-Down (No-Blow) Tool Assembly: **1 1/2" - 5 1/2"** with 15/16" - 10 Connections

NOMINAL SIZE	1 1/2"	2 3/8"	2 7/8"	3 1/2"
ASSEMBLY NUMBER	11006032061	11006031871	11006032871	11006033501



DET	PART NAME	QTY	PART NO	PART NO	PART NO	PART NO
1	TOP SUB	1	110029	110029	110029	110029
2	SPRING	1	9000189	9000189	9000189	9000189
3	NUT	1	110067	110067	110067	110067
4	PIN	1	18810208751	18810208751	18810208751	18810208751
5	TOP RETAINER	1	110066	110066	110066	110066
6	HOUSING RETAINER	1	110064	110064	110064	110064
7	BODY HOUSING	1	110031	110031	1100627	1100628
8	SPRING	1	9000189	9000189	9000189	9000190
9	PUSH ROD	1	110065	110065	110065	1100619
10	DOG AXLE	1	9110140905	9110140905	9110140905	9110140905
11	DOG	2	1100618	110062	1100613	1100614
12	CAM PIN	2	110069	110069	110069	110069
13	CAM	2	110063	110063	1100612	1100616
14	CAM AXLE	1	9110131250	9110131250	9110131250	9110131250

ENGINEERING DATA:

MAXIMUM OD	BODY	1.25"	1.25"	1.25"	1.25"
	DOGS RETRACTED	1.25"	1.28"	1.29"	1.49"
	DOGS EXPANDED	1.81"	2.30"	2.51"	3.27"
PIN-BOX THREAD CONNECTION		15/16" - 10	15/16" - 10	15/16" - 10	15/16" - 10
LENGTH	DOGS RETRACTED	17.51"	17.51"	17.86"	17.87"
	DOGS EXPANDED	16.88"	16.88"	16.88"	16.88"
WEIGHT REQUIRED TO RETRACT DOGS - lbs (kg)		9.0 (4.08)	9.0 (4.08)	10.0 (4.54)	11.0 (4.99)
MATERIAL		Stainless	Stainless	Stainless	Stainless
WEIGHT - lbs (kg)		4.1 (1.86)	4.1 (1.86)	4.1 (1.86)	4.0 (1.81)

NOMINAL SIZE	4 1/2"	5 1/2"
ASSEMBLY NUMBER	11006034501	11006035501



DET	PART NAME	QTY	PART NO	PART NO
1	TOP SUB	1	1100635	1100635
2	SPRING	2	900025	900025
3	NUT	1	1100623	1100623
4	TOP RETAINER	1	1100621	1100621
5	HOUSING RETAINER	1	1100622	1100622
6	BODY HOUSING	1	1100634	1100634
7	PUSH ROD	1	1100624	1100624
8	DOG AXLE	2	9110141050	9110141050
9	CAM	4	1100626	1100633
10	DOG	4	1100615	1100632
11	CAM PIN	4	9111430500	9111430500
12	BOLT RETAINER	2	18581111250	18581111250

ENGINEERING DATA:

MAXIMUM OD	BODY	1.75"	1.75"
	DOGS RETRACTED	1.92"	1.97"
	DOGS EXPANDED	4.29"	5.22"
PIN-BOX THREAD CONNECTION		15/16" - 10	15/16" - 10
LENGTH	DOGS RETRACTED	26.32"	26.32"
	DOGS EXPANDED	24.62"	24.62"
WEIGHT REQUIRED TO RETRACT DOGS - lbs (kg)		25-30 (11.4)	25-30 (11.4)
MATERIAL		Stainless	Stainless
WEIGHT - lbs (kg)		12.9 (5.85)	12.9 (5.85)



SECTION VI: 'BHP' INSTRUMENT HANGERS and ACCESSORIES

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REBCO

Product Code: 115



Type '**AO**' Shock Absorber Assembly: **1 1/4" – 1 1/2"**

Rebco Type '**AO**' Shock Absorber is used to suppress the shock transmitted to the instruments while being run into the well to be set.

Shock Absorber Assembly connections can vary to suit application. The Materials and other Sizes are available, please specify when ordering.

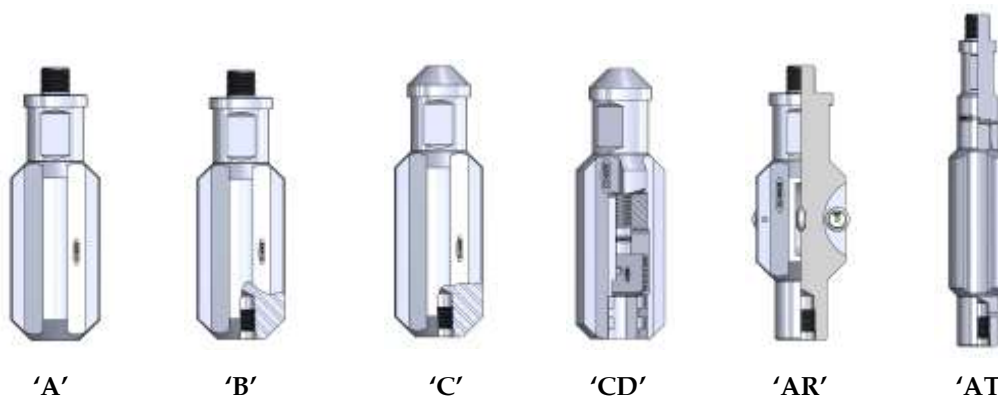
NOM SIZE	ASSEMBLY NUMBER		ENGINEERING DATA:			
	PIN - BOX CONNECTION		MAX OD	FN OD	LENGTH	WEIGHT lbs (kgs)
	3/4" - 16	15/16" - 10				
1 1/4"	115002012501	115002012500	1.250"	1.187"	18.75"	4.3 (1.95)
1 1/2"	115002015001	115002015000	1.500"	1.375"	19.0"	5.8 (2.63)

NOTE: Shock Absorber Connections with **Rebco 'RQLD'** are available.

Product Code: 118

CENTRALIZERS are used to keep the Tool String centered, and also as a **No-Go** stop when used to set the Instrumentation.

Rebco offers several Types of Centralizers: Size Range (OD) up to 7" (177.8 mm)



'A'

'B'

'C'

'CD'

'AR'

'AT'

How to ORDER: Type, as shown above. Part Number and number of flutes is determined by Type of Centralizer (No-Go), and OD to three decimal places. Material is Alloy, unless specified.

TYPE	PART NO.	DESCRIPTION
'A'	11800-	Blind Bottom with Pin, Fishing Neck
'B'	11801-	Top and Bottom Thread, Fishing Neck
'C'	11802-	Blind Fishing Neck, Bottom Box
'CD'	1180203-	Blind Fishing Neck with 'RQLD' Female
'AR'	1180013-	Roller OD, with Pin-Box, Fishing Neck
'AT'	1180015-	Teflon® Sleeve, Pin-Box, Fishing Neck



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REBCO

Product Code: 116



Type **'BA'** Adjustable Belly Spring Centralizer Assembly: **1 1/2" - 1 7/8"**

Rebco Type **'BA'** Adjustable Belly Spring Centralizer keeps the instrumentation centered for easier retrieval.

Centralizer Body is Stainless Steel, and the Springs - (Coil, 2) (Belly, 3) are Inconel®.

NOM SIZE	ASSEMBLY NUMBER	ENGINEERING DATA:					
		CONNECTION	MAX OD	RANGE OD	FN OD	LENGTH	WEIGHT lbs (kgs)
1 1/2"	116010015060	15/16" - 10	1.500"	1 1/2" - 8 1/2"	1.375"	45.7"	19.3 (8.75)
1 7/8"	116010018760	15/16" - 10	1.875"	1 7/8" - 9"	1.375"	45.7"	21.5 (9.75)

Type **'BS'** Fixed OD Range Belly Spring Centralizer Assembly: **1 1/2"**

Rebco Type **'BS'** Belly Spring Centralizers are non-adjustable, therefore, the OD Range needs to be specified.

The Assembly is shorter in design; length, compared to Type **'BA'**.

Type **'BS'** Belly Spring Centralizers are available with 3 or 6 Belly Springs.

Thread connections can be with Amerada (3/4" - 16) or 15/16" - 10. To suit Instrumentation.

Please specify when ordering.

Reference Assembly Number - **1160114_**

