

BRADLEY CATALOG



- A** *Wireline Core Barrels*
- B** *Underground Wireline Core Barrels*
- C** *Wireline Drill Rods and Casing*
- D** *Adaptors*
- E** *Water Equipment*
- F** *Recovery Tools*
- G** *Hoisting Tools*
- H** *Wedging Tools*
- I** *Miscellaneous*

BRADLEY LOCATIONS

Bradley Manufacturing provides quality diamond drilling products and personalized service for the exploration and mining industries throughout the world.

This catalogue is designed to facilitate locating drilling products with corresponding part numbers. In the event that a particular product could not be found or if additional technical information is required, please contact the nearest Bradley sales representative.

MANUFACTURING



BRADLEY MANUFACTURING

MANUFACTURING PLANT

Rouyn-Noranda, QUEBEC
270, boul. Industriel
Canada J9X 6T3
Tel.: (819) 797-1771
Fax: (819) 797-9289
manufacturing@bradley.ca
www.bradley.ca

CANADIAN DIVISIONS

Val-d'Or, QUEBEC
155, rue des Distributeurs J9P 6Y1
Tel.: (819) 825-6131
Fax: (819) 825-2897
manufacturing@bradley.ca

Timmins, ONTARIO
Highway 101 West
P.O. Box 1590 P4N 7W7
Tel.: (705) 267-2723
Fax: (705) 268-2774
manufacturing@bradley.ca

Sudbury, ONTARIO
Coniston Industrial Park
Coniston P0M 1M0
Tel.: (705) 694-0455
Fax: (705) 694-0957
manufacturing@bradley.ca

Delta, BRITISH COLUMBIA
Unit 6, 7950 Huston Road
V4G 1C2
Tel.: (604) 946-6590
Fax: (604) 946-6594
delta@bradley.ca

U.S.A. DIVISION

Salt Lake City, UTAH
1939 South 4130 West, Suite H
84104
Tel.: (801) 973-7979
Fax: (801) 973-7666
saltlake@bradley.ca

AUSTRALIAN DIVISION

Elizabeth South, AUSTRALIA
Cnr. Trimmer Rd & Walsh St.
5112
Tel.: 6188-287-1088
Fax: 6188-287-2198
adelaide@bradleymfg.com.au

Wireline Core Barrels and Overshot “Knuckle Head”

A W/L	A-2	A-3
B W/L	A-4	A-5
N W/L	A-6	A-7
H W/L	A-8	A-9
HW WL	A-10	A-11
P W/L	A-12	A-13

Wireline Accessories: A-14 to A-17

Wireline Overshots “Roller Type”

A W/L	A-18
B W/L	A-19
N W/L	A-20
H W/L	A-21

Wireline Core Barrels and Overshot Triple Tube

B W/L	A-22	A-23
N W/L	A-24	A-25
H W/L	A-26	A-27
HW W/L	A-28	A-29
P W/L	A-30	A-31

Conversion Kits (W/L Wireline to W/L Triple Tube): A-32

Pump Out Assemblies: A-33

Wireline Core Barrels and Overshot Thin Wall “Knuckle Head”

ATW	A-34	A-35
BTW	A-36	A-37
NTW	A-38	A-39
N W/L 2	A-40	A-41
HTW	A-42	A-43

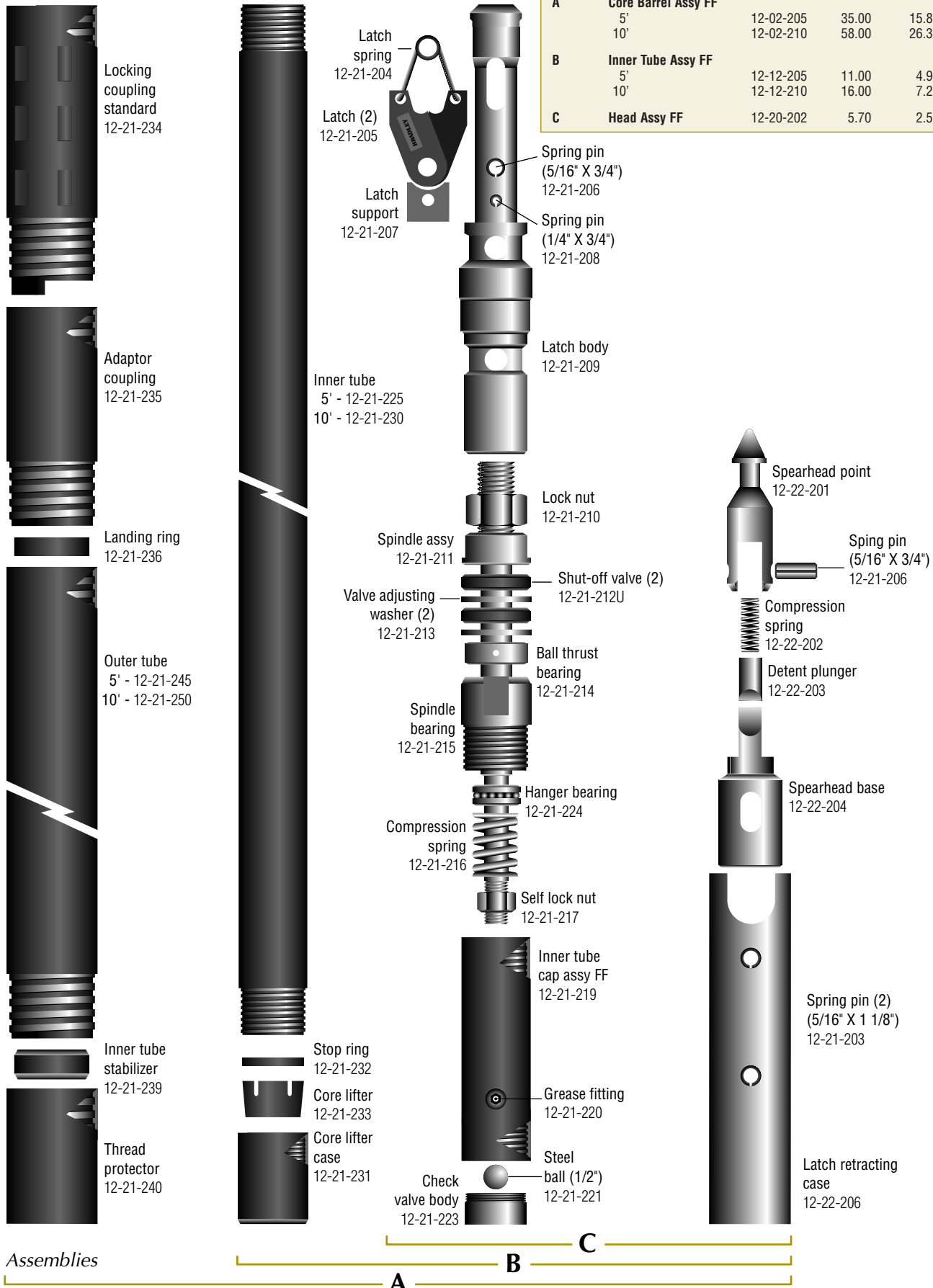
Thin Wall Wireline Accessories: A-44 to A-46

Conversion Kits (W/L Wireline to Thin Wall): A-47

Core Barrels Double Tube Swivel Thin Wall

ATW	A-48
BTW	A-49
NTW	A-50

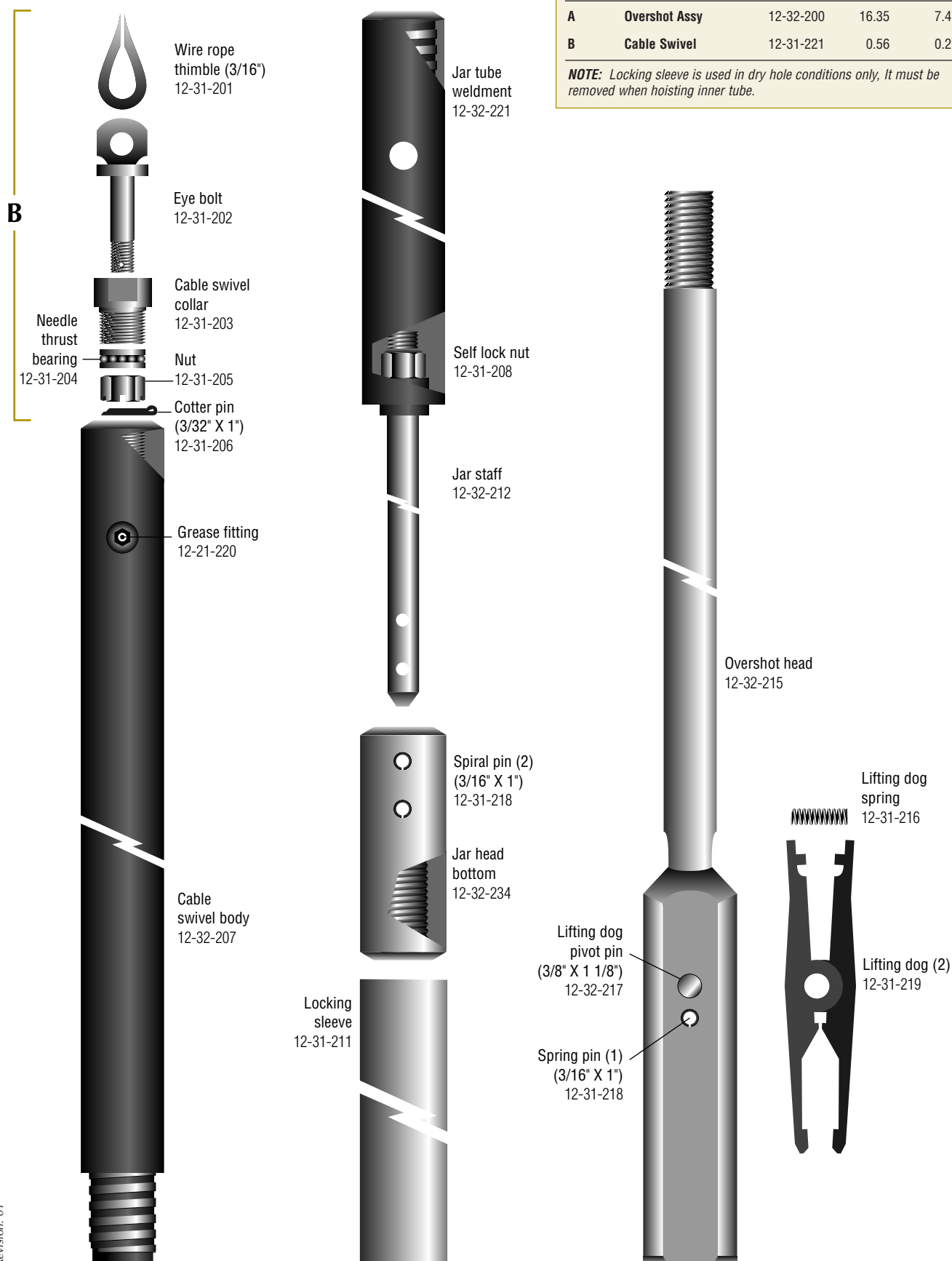
Core Barrel Assembly Options: A-51



ASSEMBLIES

Group	Description	Part N ^o .	Weight	
			lb	kg
A	Overshot Assy	12-32-200	16.35	7.4
B	Cable Swivel	12-31-221	0.56	0.2

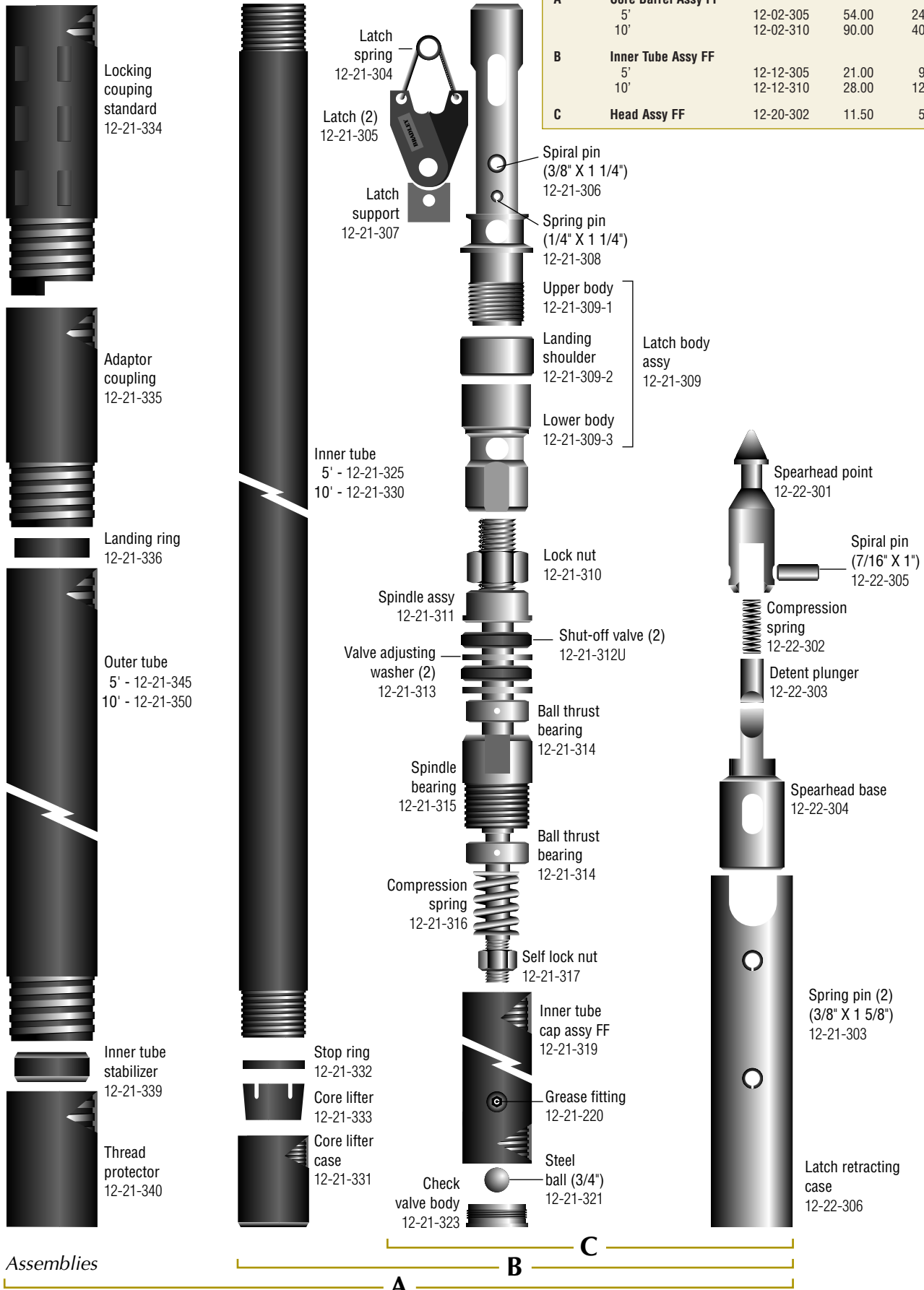
NOTE: Locking sleeve is used in dry hole conditions only, It must be removed when hoisting inner tube.



B2620 - Revision: 01

Assemblies

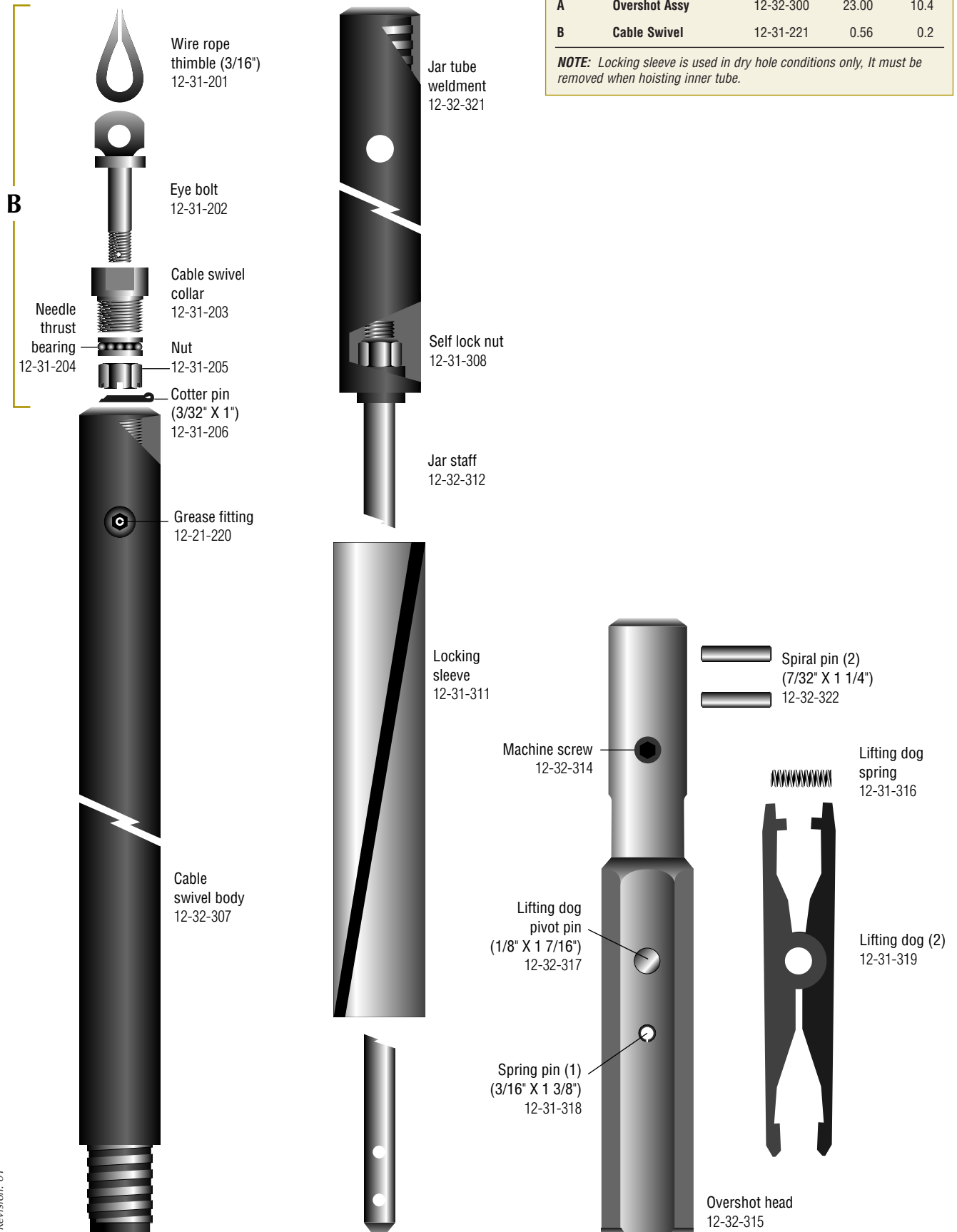
A



ASSEMBLIES

Group	Description	Part N ^o .	Weight	
			lb	kg
A	Overshot Assy	12-32-300	23.00	10.4
B	Cable Swivel	12-31-221	0.56	0.2

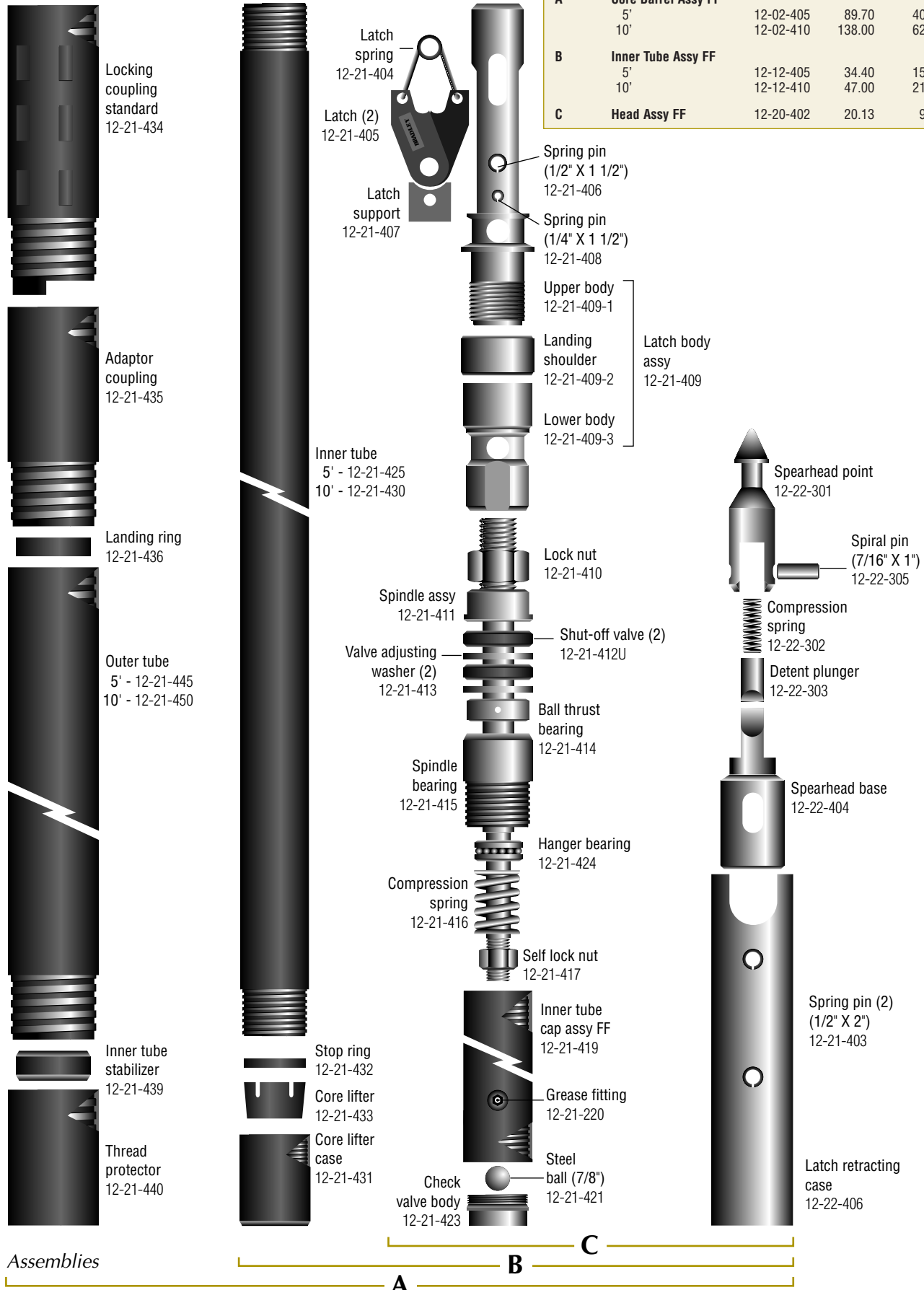
NOTE: Locking sleeve is used in dry hole conditions only, It must be removed when hoisting inner tube.



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Assemblies

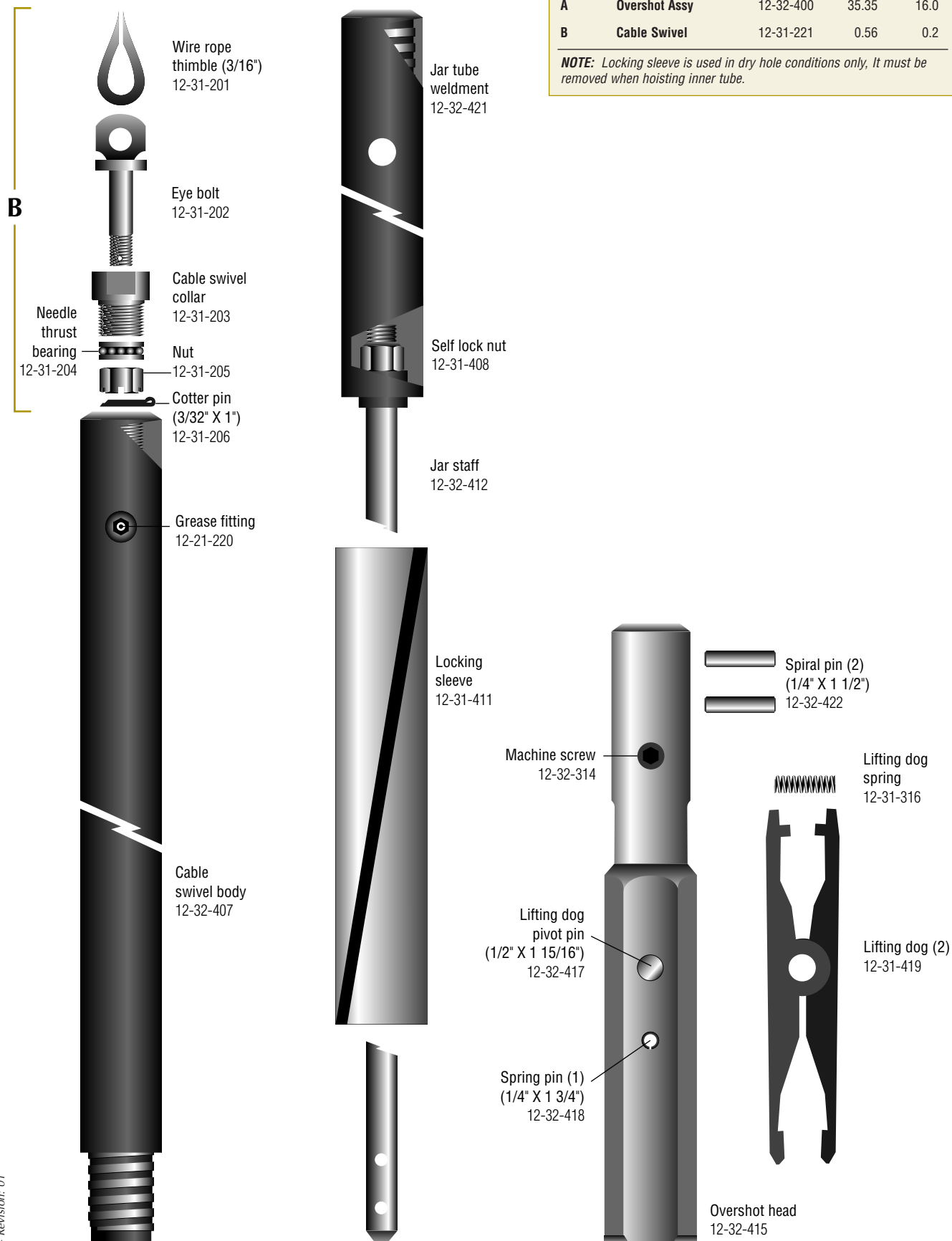
A



ASSEMBLIES

Group	Description	Part N°.	Weight	
			lb	kg
A	Overshot Assy	12-32-400	35.35	16.0
B	Cable Swivel	12-31-221	0.56	0.2

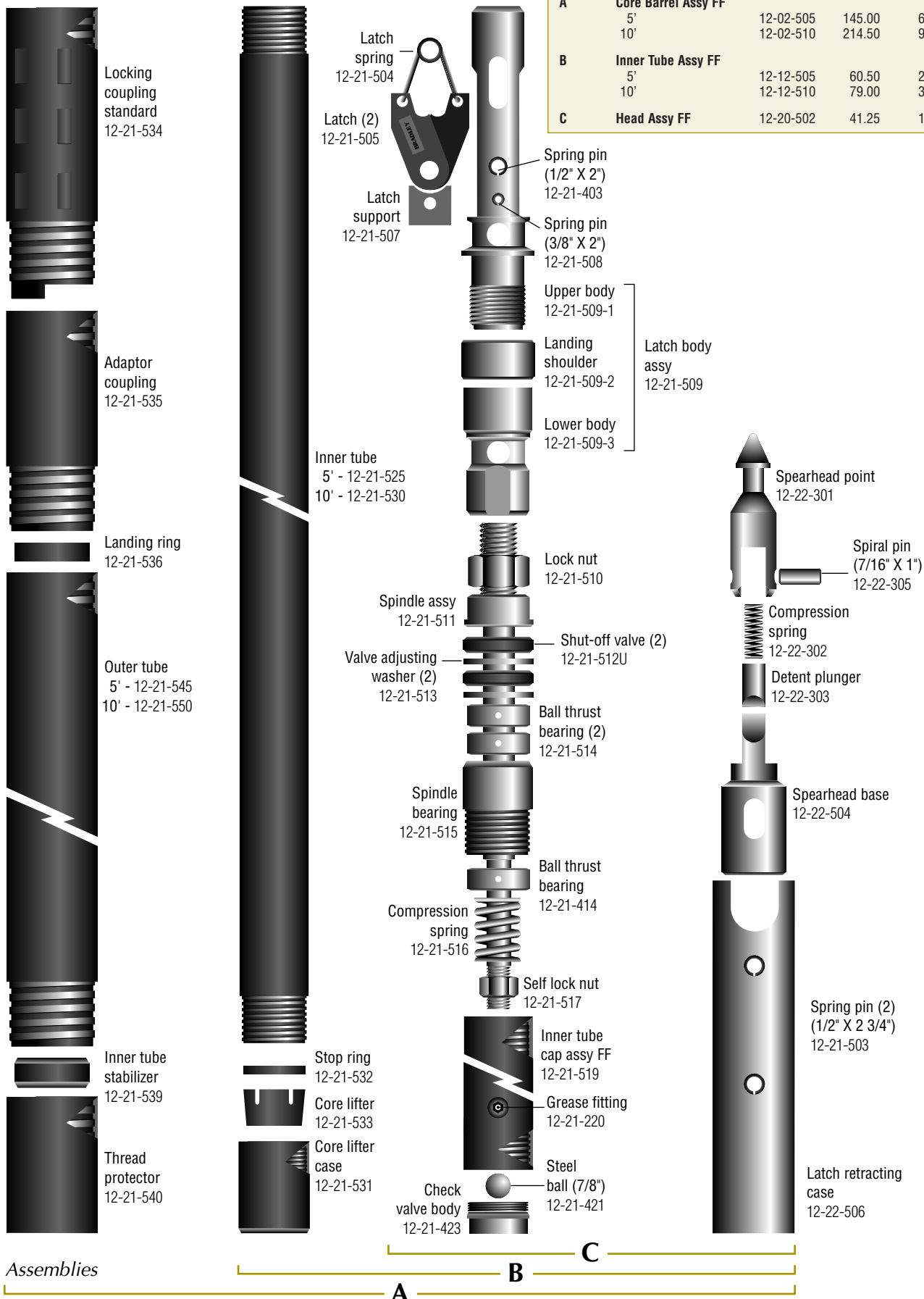
NOTE: Locking sleeve is used in dry hole conditions only, It must be removed when hoisting inner tube.



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Assemblies

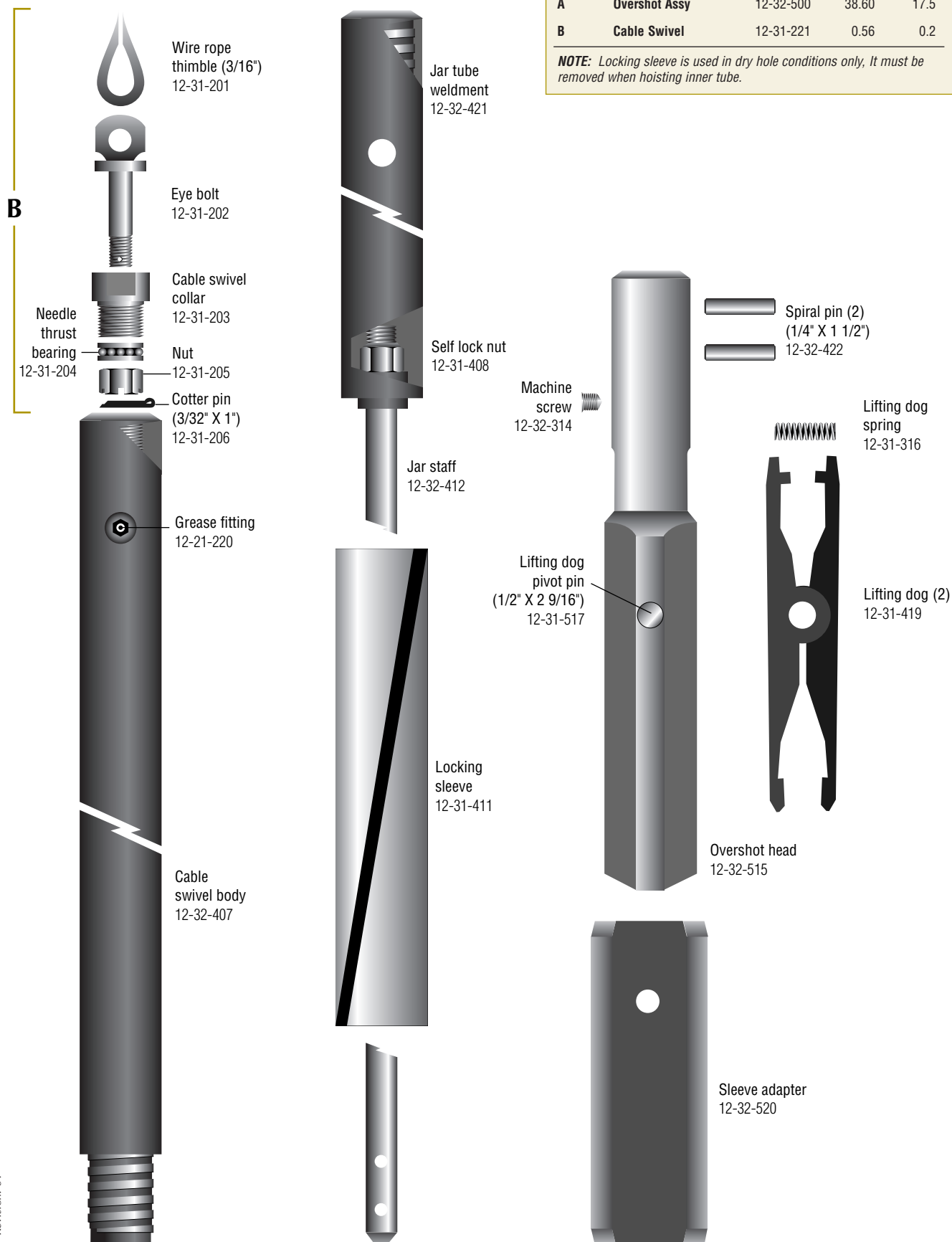
A



ASSEMBLIES

Group	Description	Part N ^o .	Weight	
			lb	kg
A	Overshot Assy	12-32-500	38.60	17.5
B	Cable Swivel	12-31-221	0.56	0.2

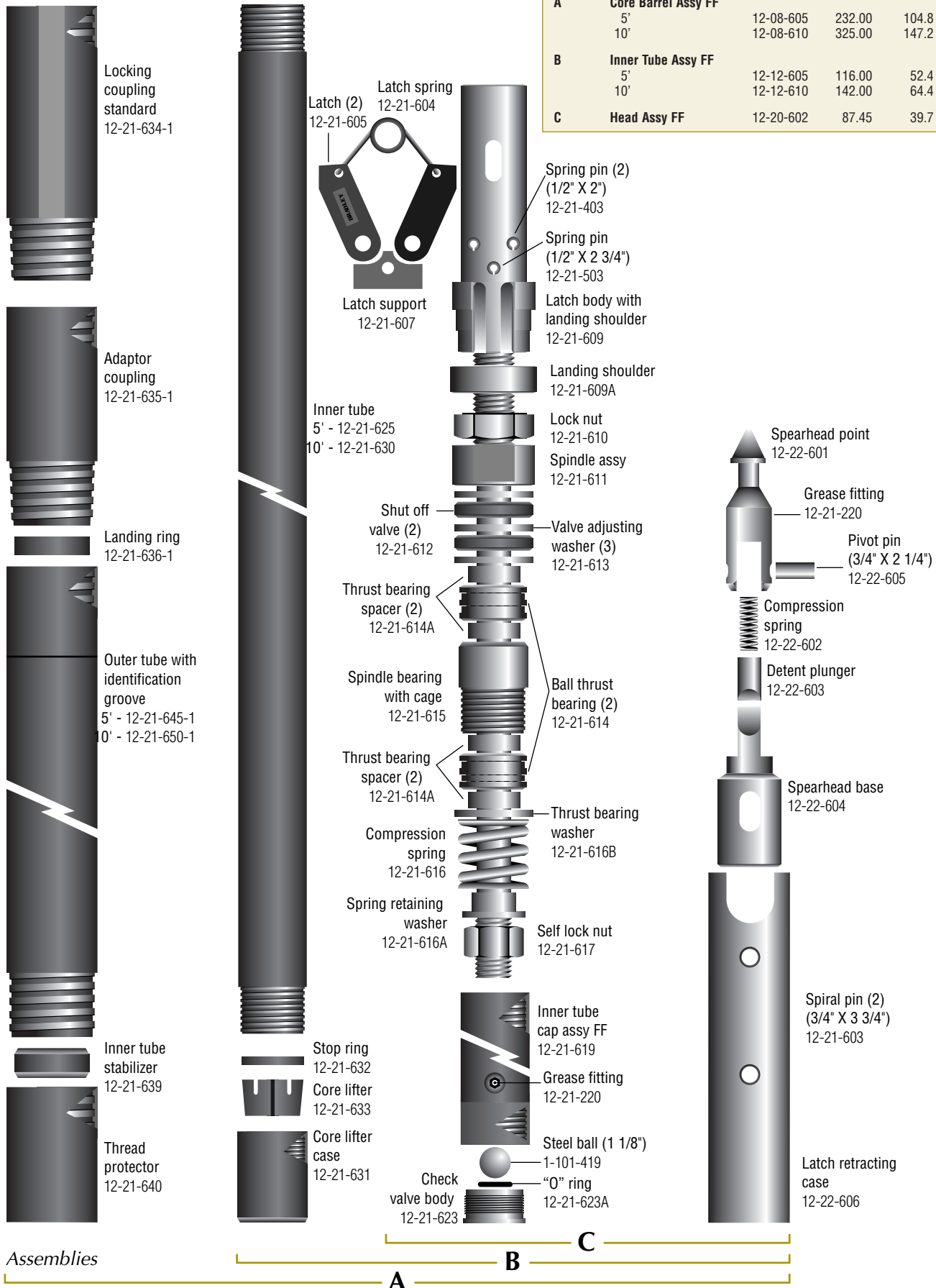
NOTE: Locking sleeve is used in dry hole conditions only, It must be removed when hoisting inner tube.



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Assemblies

A



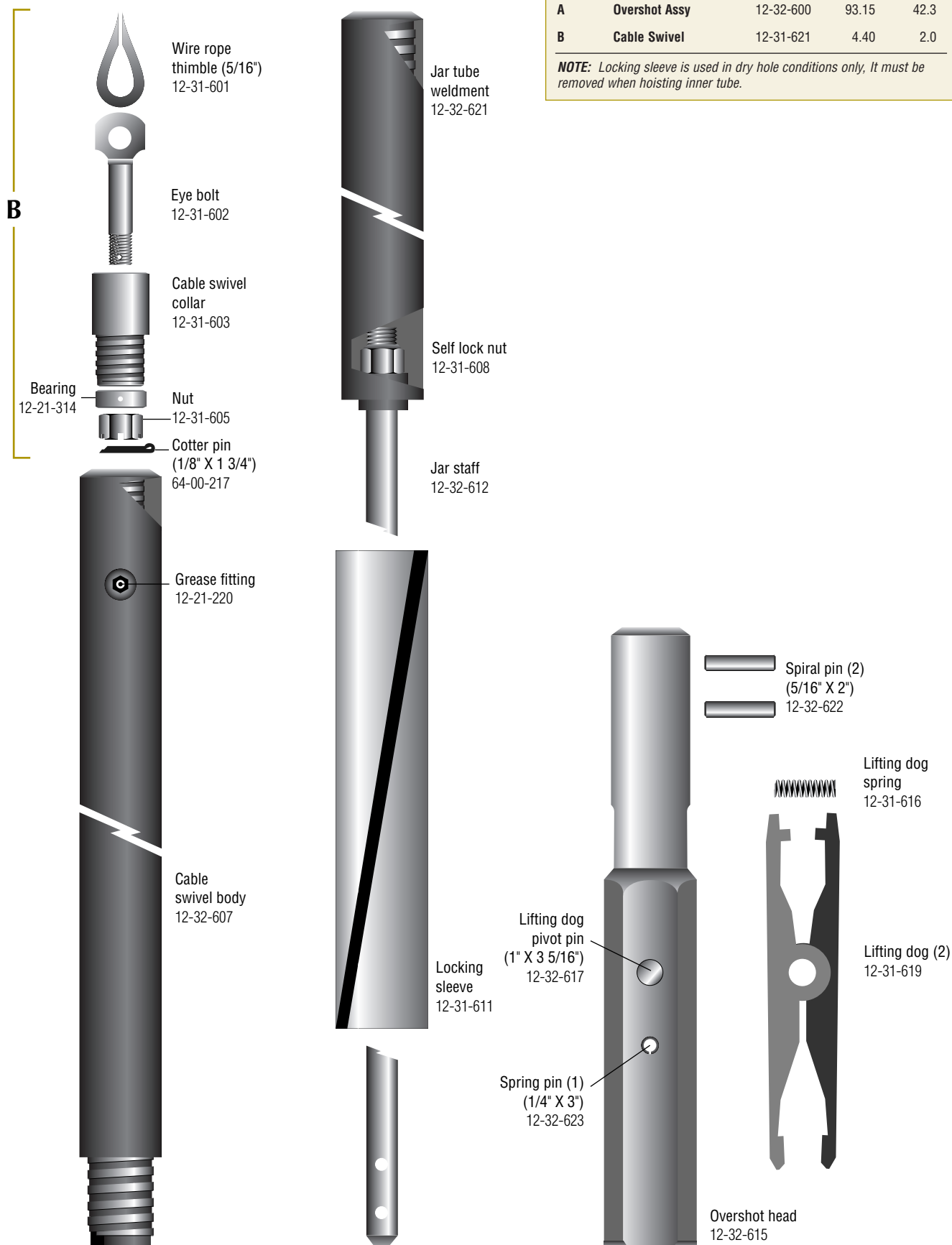
ASSEMBLIES

Group	Description	Part N°.	Weight	
			lb	kg
A	Core Barrel Assy FF			
	5'	12-08-605	232.00	104.8
	10'	12-08-610	325.00	147.2
B	Inner Tube Assy FF			
	5'	12-12-605	116.00	52.4
	10'	12-12-610	142.00	64.4
C	Head Assy FF	12-20-602	87.45	39.7

ASSEMBLIES

Group	Description	Part N°.	Weight	
			lb	kg
A	Overshot Assy	12-32-600	93.15	42.3
B	Cable Swivel	12-31-621	4.40	2.0

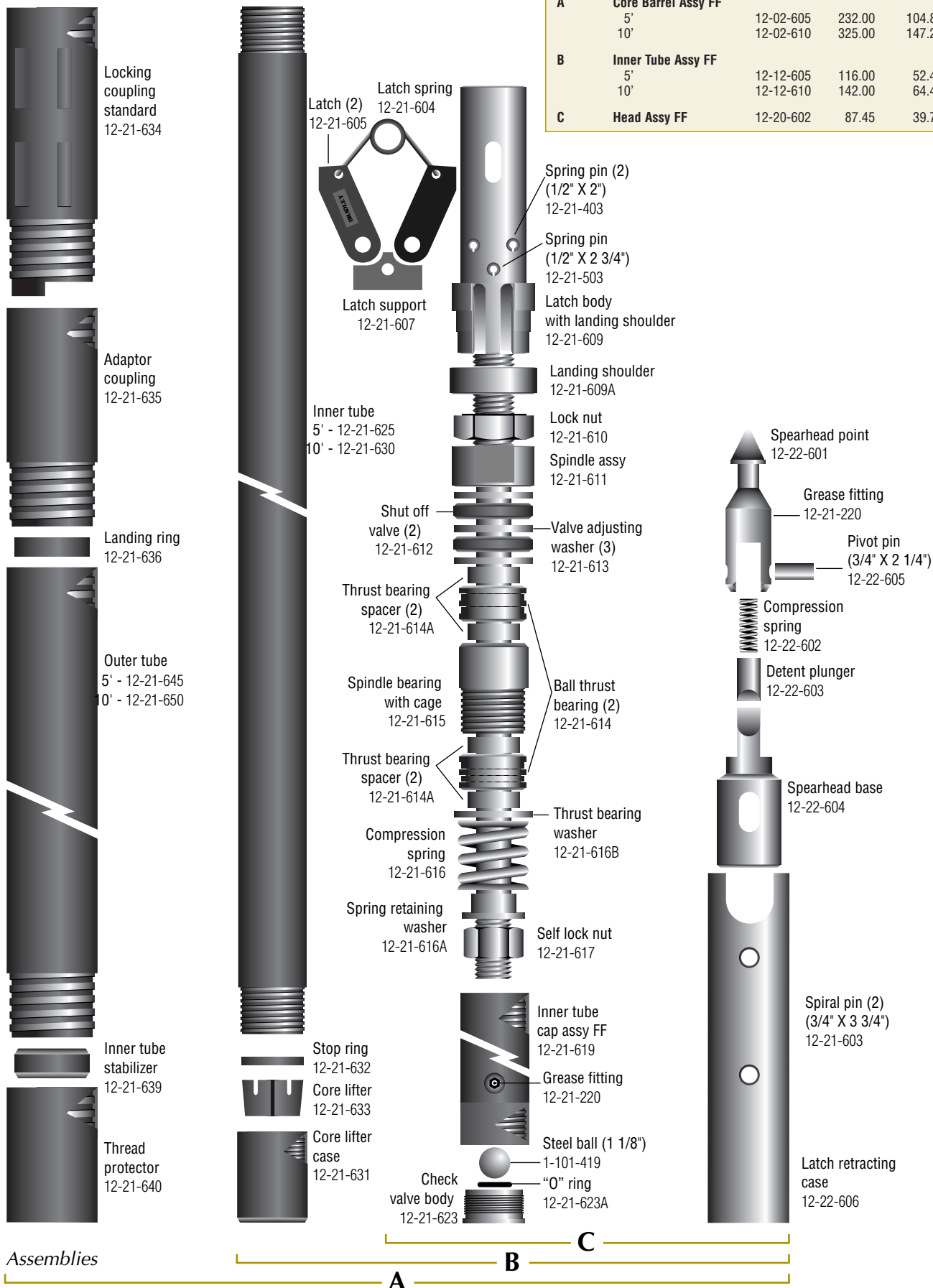
NOTE: Locking sleeve is used in dry hole conditions only, It must be removed when hoisting inner tube.



B2620 - Revision: 02

Assemblies

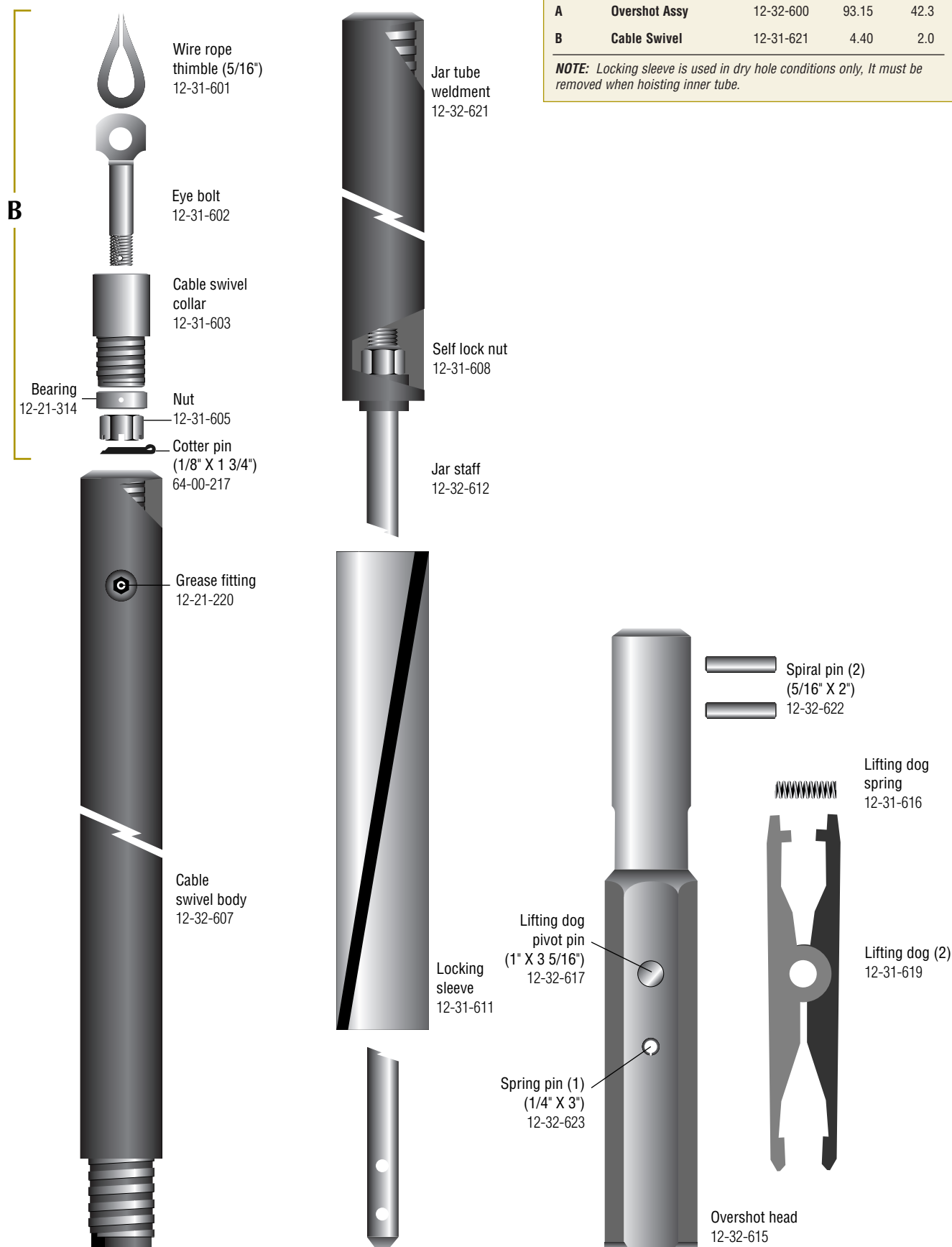
A



ASSEMBLIES

Group	Description	Part N ^o .	Weight	
			lb	kg
A	Overshot Assy	12-32-600	93.15	42.3
B	Cable Swivel	12-31-621	4.40	2.0

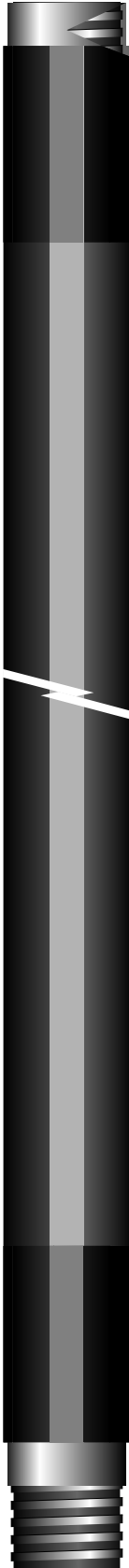
NOTE: Locking sleeve is used in dry hole conditions only, It must be removed when hoisting inner tube.



B2620 - Revision: 02

Assemblies

A



**FULL HOLE
OUTER TUBE**

5':	
A W/L:	12-21-294
B W/L:	12-21-394
N W/L:	12-21-494
H W/L:	12-21-594
10':	
A W/L:	12-21-295
B W/L:	12-21-395
N W/L:	12-21-495
H W/L:	12-21-595



**HEAT TREATED
OUTER TUBE**

5':	
A W/L:	12-21-245HT
B W/L:	12-21-345HT
N W/L:	12-21-445HT
H W/L:	12-21-545HT
HW W/L:	12-21-645-1HT
P W/L:	12-21-645HT
10':	
A W/L:	12-21-250HT
B W/L:	12-21-350HT
N W/L:	12-21-450HT
H W/L:	12-21-550HT
HW W/L:	12-21-650-1HT
P W/L:	12-21-650HT



**CHROME PLATED
OUTER TUBE**

5':	
A W/L:	12-21-285
B W/L:	12-21-385
N W/L:	12-21-485
H W/L:	12-21-585
HW W/L:	12-21-685-1
P W/L:	12-21-685
10':	
A W/L:	12-21-290
B W/L:	12-21-390
N W/L:	12-21-490
H W/L:	12-21-590
HW W/L:	12-21-690-1
P W/L:	12-21-690



CHROME PLATED INNER TUBE

5':	
A W/L:	12-21-275
B W/L:	12-21-375
N W/L:	12-21-475
H W/L:	12-21-575
HW W/L:	12-21-675
P W/L:	12-21-675

10':	
A W/L:	12-21-280
B W/L:	12-21-380
N W/L:	12-21-480
H W/L:	12-21-580
HW W/L:	12-21-680
P W/L:	12-21-680



CHROME PLATED INNER TUBE 6' EXTENSION

A W/L:	12-21-276
B W/L:	12-21-376
N W/L:	12-21-476
H W/L:	12-21-576
HW W/L:	12-21-676
P W/L:	12-21-676

INNER TUBE 6' EXTENSION

A W/L:	12-21-226
B W/L:	12-21-326
N W/L:	12-21-426
H W/L:	12-21-526
HW W/L:	12-21-626
P W/L:	12-21-626



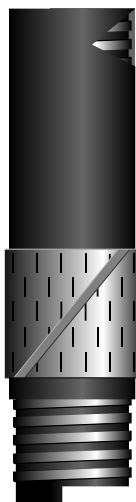
INNER TUBE COUPLING

A W/L:	12-21-291
B W/L:	12-21-391
N W/L:	12-21-491
H W/L:	12-21-591
HW W/L:	12-21-691
P W/L:	12-21-691



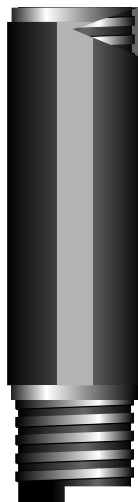
INNER TUBE EXTENSION (Straight Hole Reaming Shell)

A W/L:	12-21-292 (3 5/8")
B W/L:	12-21-392 (3 3/4")
N W/L:	12-21-492 (3 1/4")
H W/L:	12-21-592 (4 13/16")
HW W/L:	12-21-692 (5")
P W/L:	12-21-692 (5")



CARBIDE LOCKING COUPLING

2.5" Carbide:	
A W/L:	12-21-282
B W/L:	12-21-382
N W/L:	12-21-482
H W/L:	12-21-582
HW W/L:	12-21-682-1
P W/L:	12-21-682



FULL HOLE LOCKING COUPLING

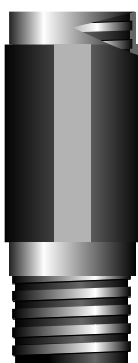
A W/L:	12-21-234H
B W/L:	12-21-334H
N W/L:	12-21-434H
H W/L:	12-21-534H
HW W/L:	12-21-634-1H
P W/L:	12-21-634H

ADAPTOR COUPLING OPTIONS



HEAT TREATED ADAPTOR COUPLING

A W/L:	12-21-235HT
B W/L:	12-21-335HT
N W/L:	12-21-435HT
H W/L:	12-21-535HT
HW W/L:	12-21-635-1HT
P W/L:	12-21-635HT



FULL HOLE ADAPTOR COUPLING

A W/L:	12-21-235H
B W/L:	12-21-335H
N W/L:	12-21-435H
H W/L:	12-21-535H



Broached
core lifter



Twin core
lifter case

Broached core lifter:	B W/L:	12-21-333B
	N W/L:	12-21-433B
	H W/L:	12-21-533B
	HW W/L:	12-21-633B
	P W/L:	12-21-633B
	N W/L 2:	12-27-433B
	B W/L 3:	14-21-333B
	N W/L 3:	14-21-433B
Twin core lifter case:	H W/L 3:	14-21-533B
	HW W/L 3:	14-21-633B
	P W/L 3:	14-21-633B
	B W/L:	12-21-331T
	N W/L:	12-21-431T

WRENCHES

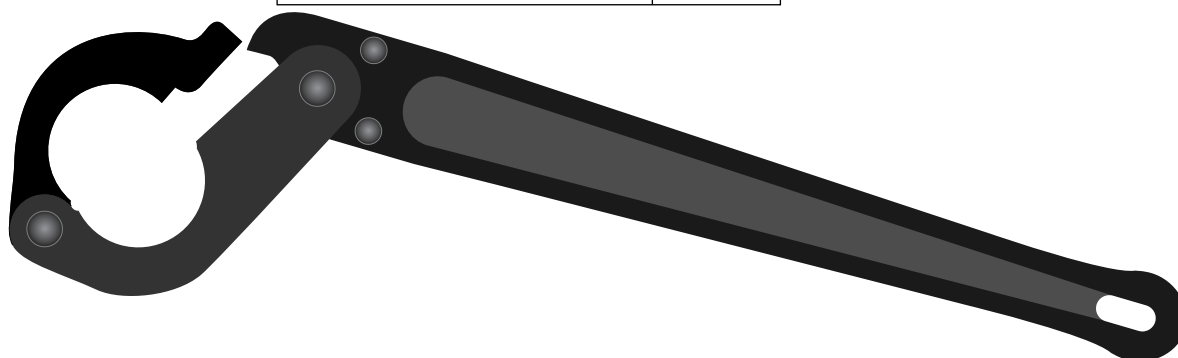
WIRELINE WRENCHES

				Weight	
				lb	kg
Outer tube wrench:	A W/L:	12-21-261		4.05	1.8
	B W/L:	12-21-361		4.00	1.8
	N W/L:	12-21-461		8.10	3.7
	H W/L:	12-21-561		9.45	4.3
	HW W/L:	12-21-661		11.18	5.7
	P W/L:	12-21-661		11.18	5.7
Inner tube wrench:	A W/L:	12-21-260		3.30	1.5
	B W/L:	12-21-360		4.00	1.8
	N W/L:	12-21-460		3.80	1.7
	H W/L:	12-21-461		8.10	3.7
	HW W/L:	12-21-660		9.08	4.1
	P W/L:	12-21-660		9.08	4.1

WIRELINE THIN WALL WRENCHES

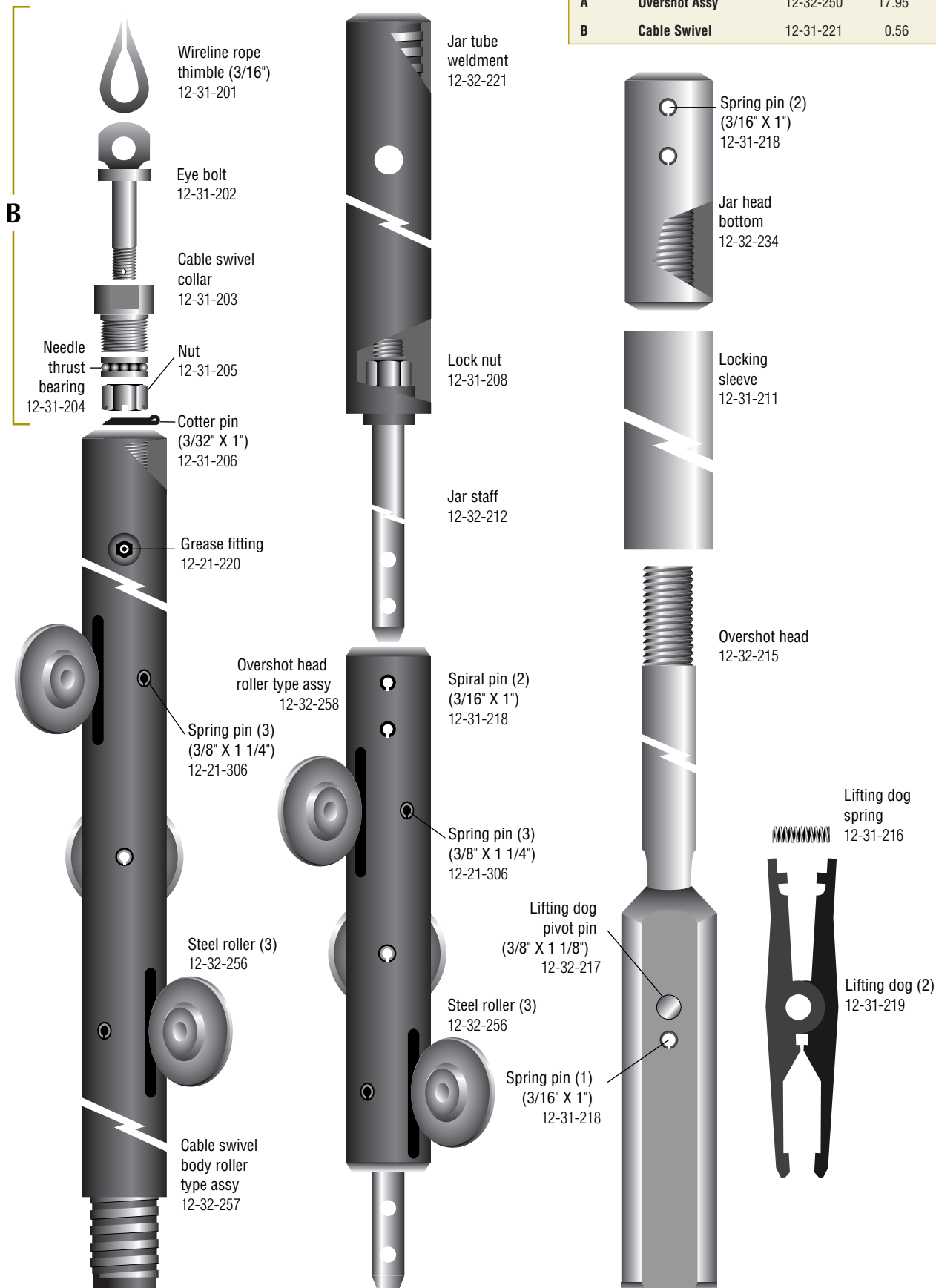
				Weight	
				lb	kg
Outer tube wrench, Thin wall:	ATW:	12-21-261		4.05	1.8
	BTW:	12-21-361		4.00	1.8
	NTW:	12-23-461		8.30	3.7
	N W/L 2:	12-21-461		8.10	3.7
	HTW:	12-21-660		9.08	4.1
Inner tube wrench, Thin wall:	ATW:	12-23-260		3.30	1.5
	BTW:	12-21-261		4.05	1.8
	NTW:	12-23-460		4.37	2.0
	N W/L 2:	12-21-361		4.00	1.8
	HTW:	12-23-560		7.95	3.6

B2620 - Revision: 02



ASSEMBLIES

Group	Description	Part N°.	Weight	
			lb	kg
A	Overshot Assy	12-32-250	17.95	8.2
B	Cable Swivel	12-31-221	0.56	0.2

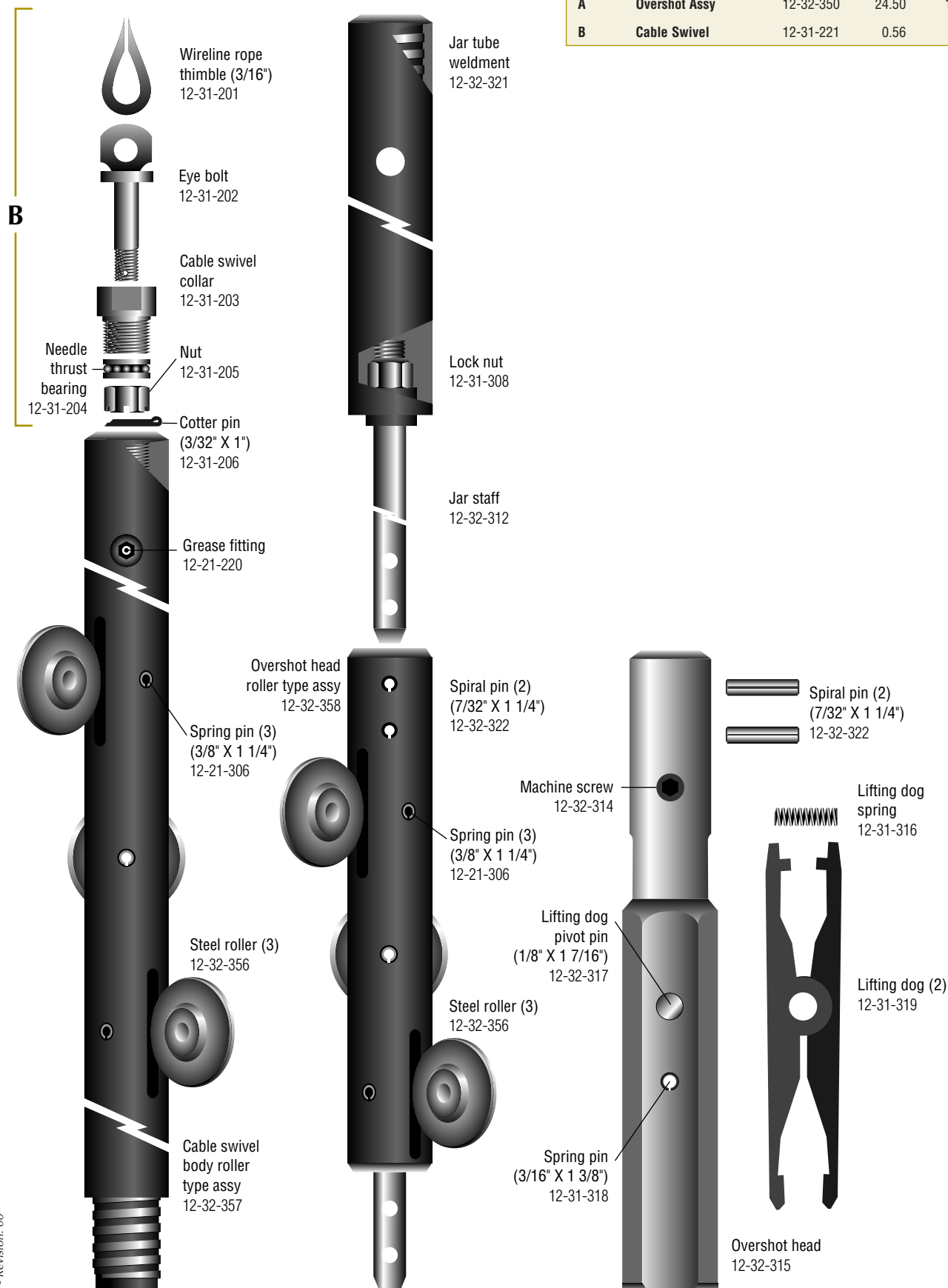


Assemblies

A

ASSEMBLIES

Group	Description	Part N ^o .	Weight	
			lb	kg
A	Overshot Assy	12-32-350	24.50	11.1
B	Cable Swivel	12-31-221	0.56	0.2



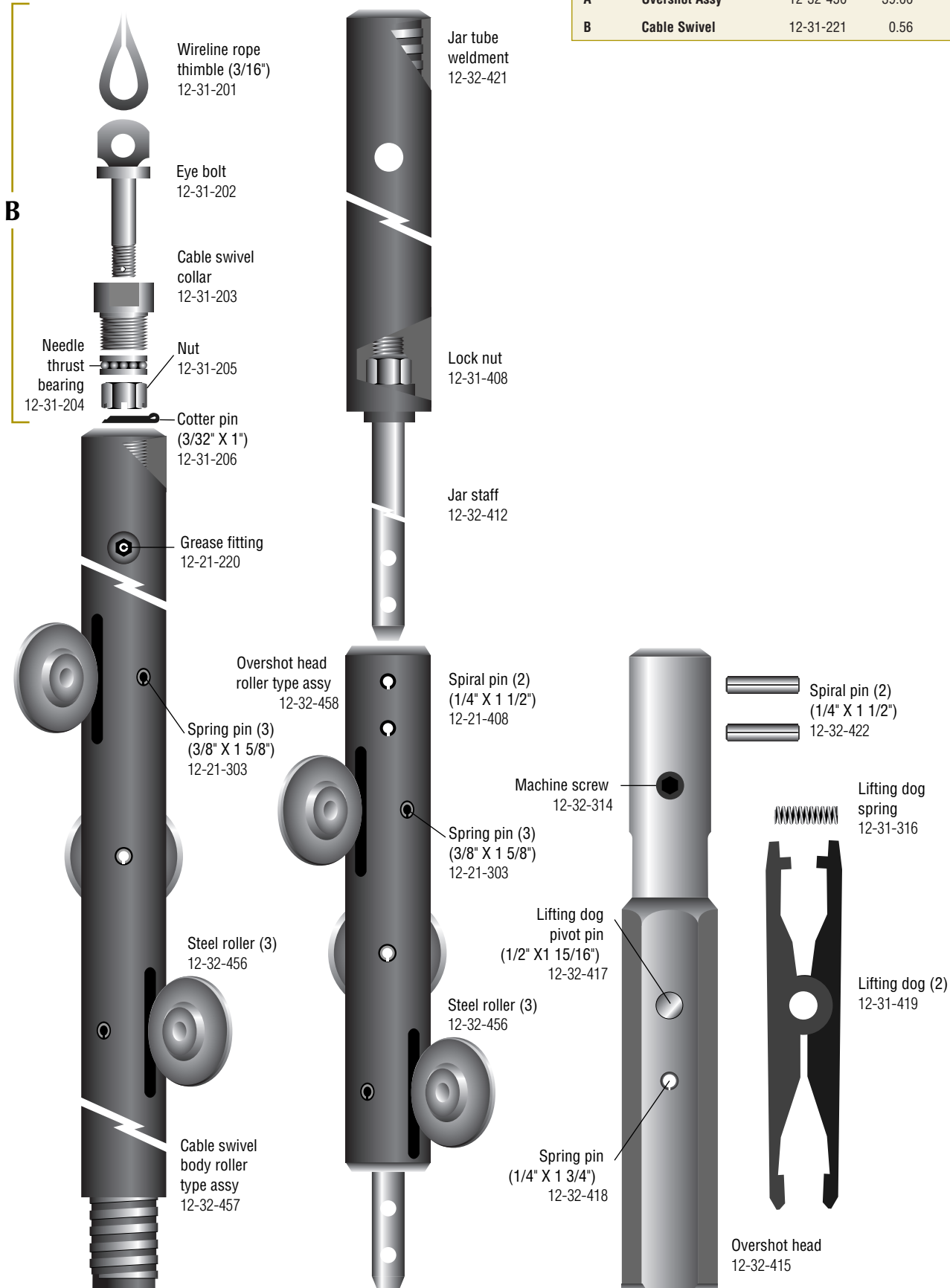
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Assemblies

A

ASSEMBLIES

Group	Description	Part N ^o .	Weight	
			lb	kg
A	Overshot Assy	12-32-450	39.00	17.7
B	Cable Swivel	12-31-221	0.56	0.2

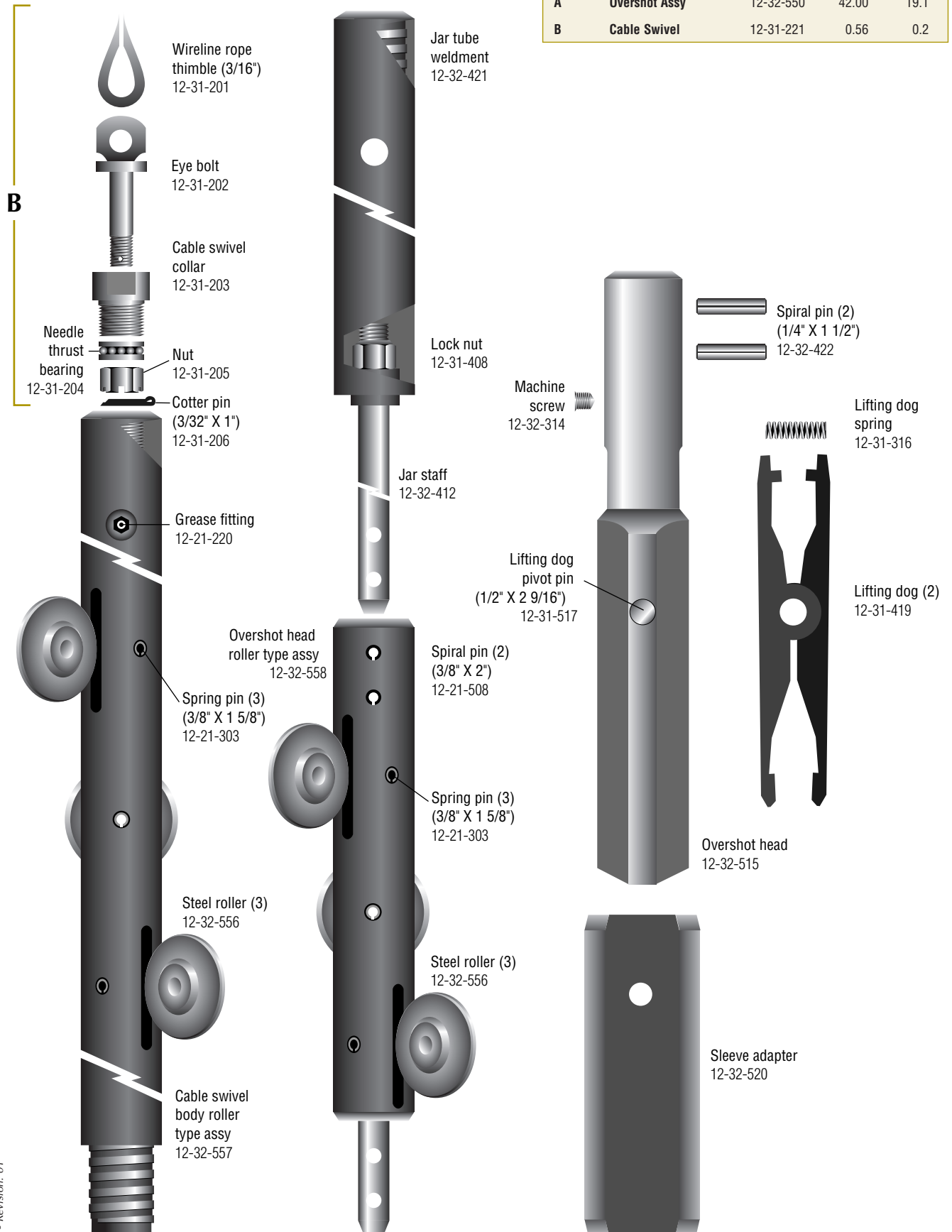


Assemblies

A

ASSEMBLIES

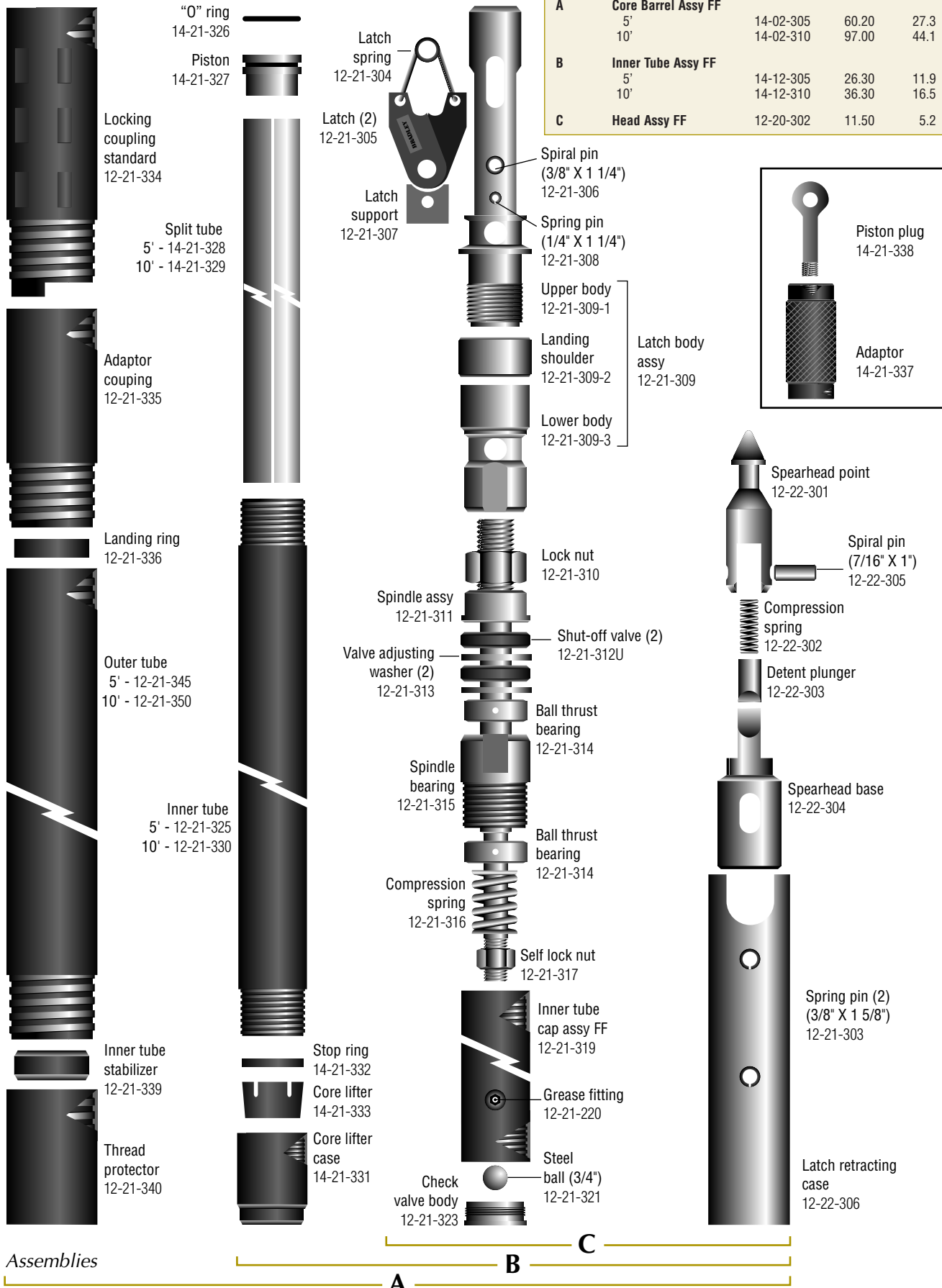
Group	Description	Part N ^o .	Weight	
			lb	kg
A	Overshot Assy	12-32-550	42.00	19.1
B	Cable Swivel	12-31-221	0.56	0.2

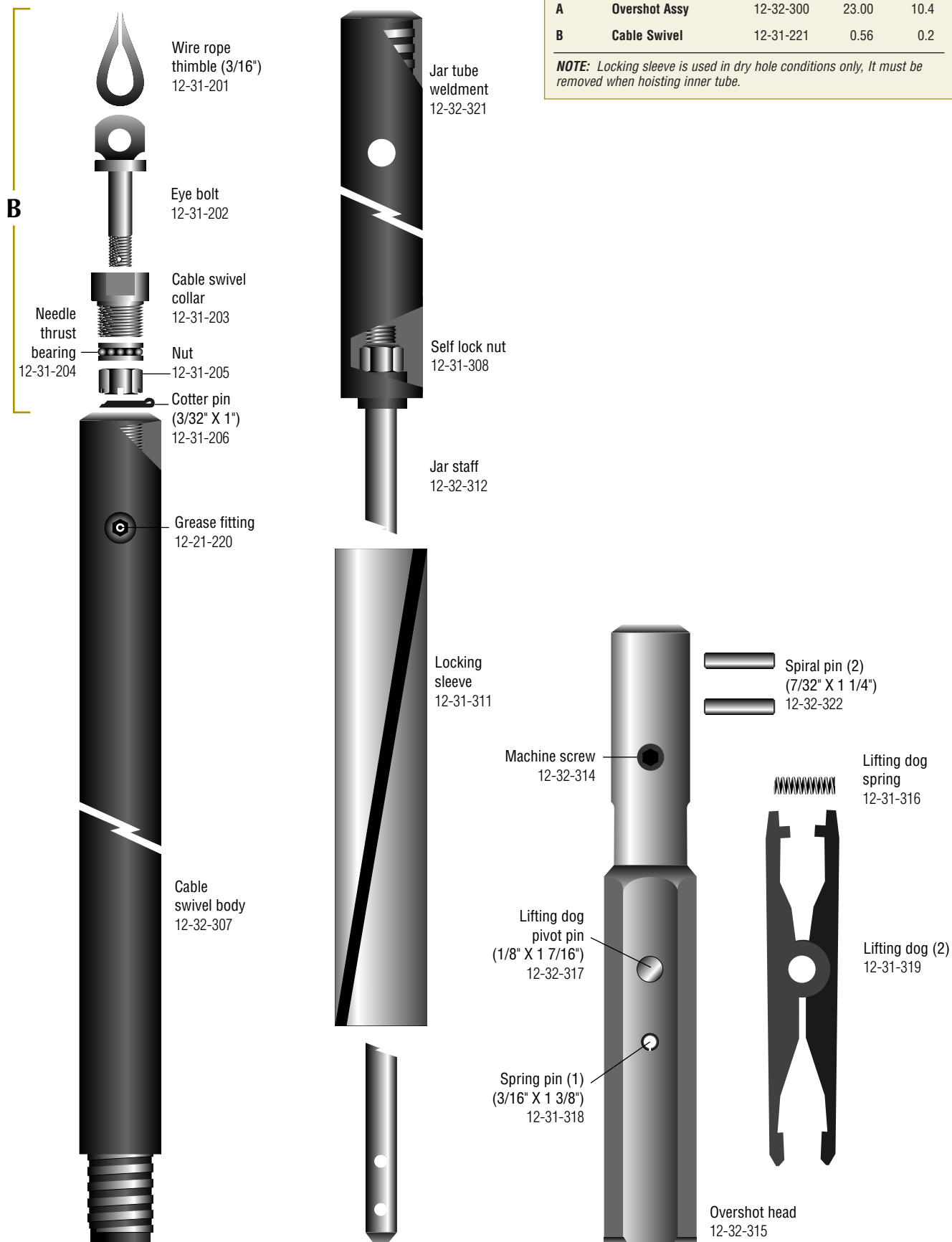


B2620 - Revision: 01

Assemblies

A

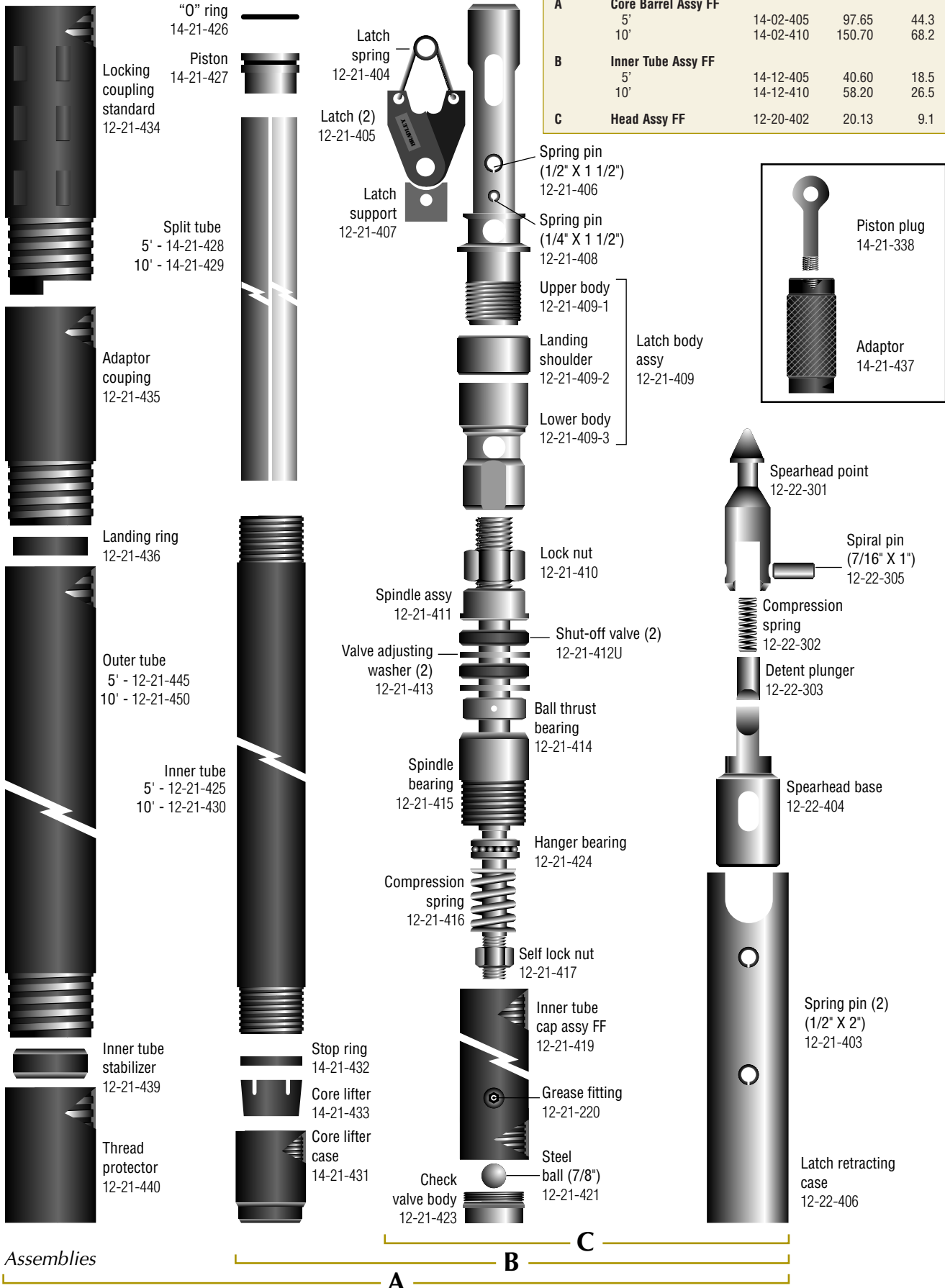


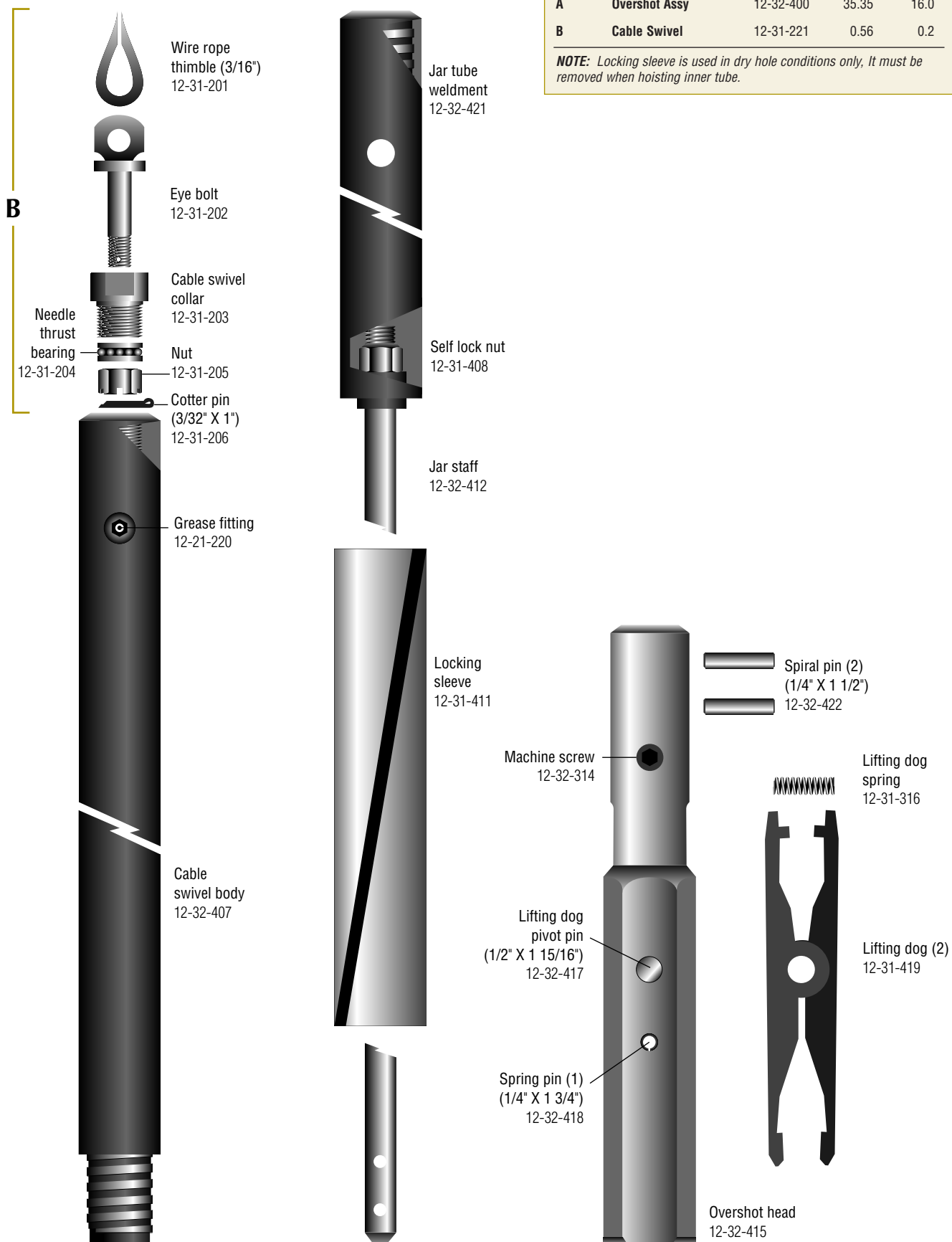


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Assemblies

A

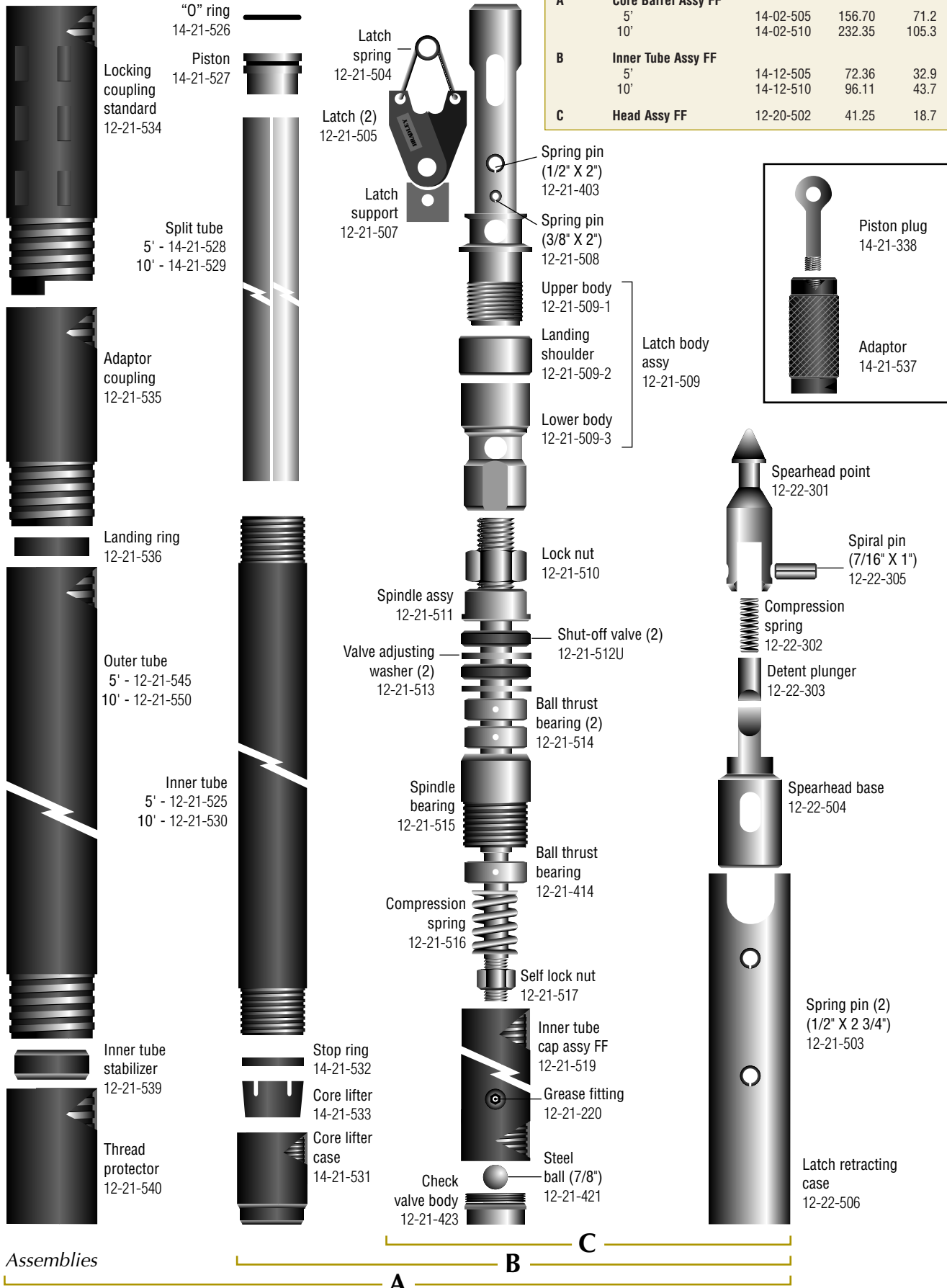




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Assemblies

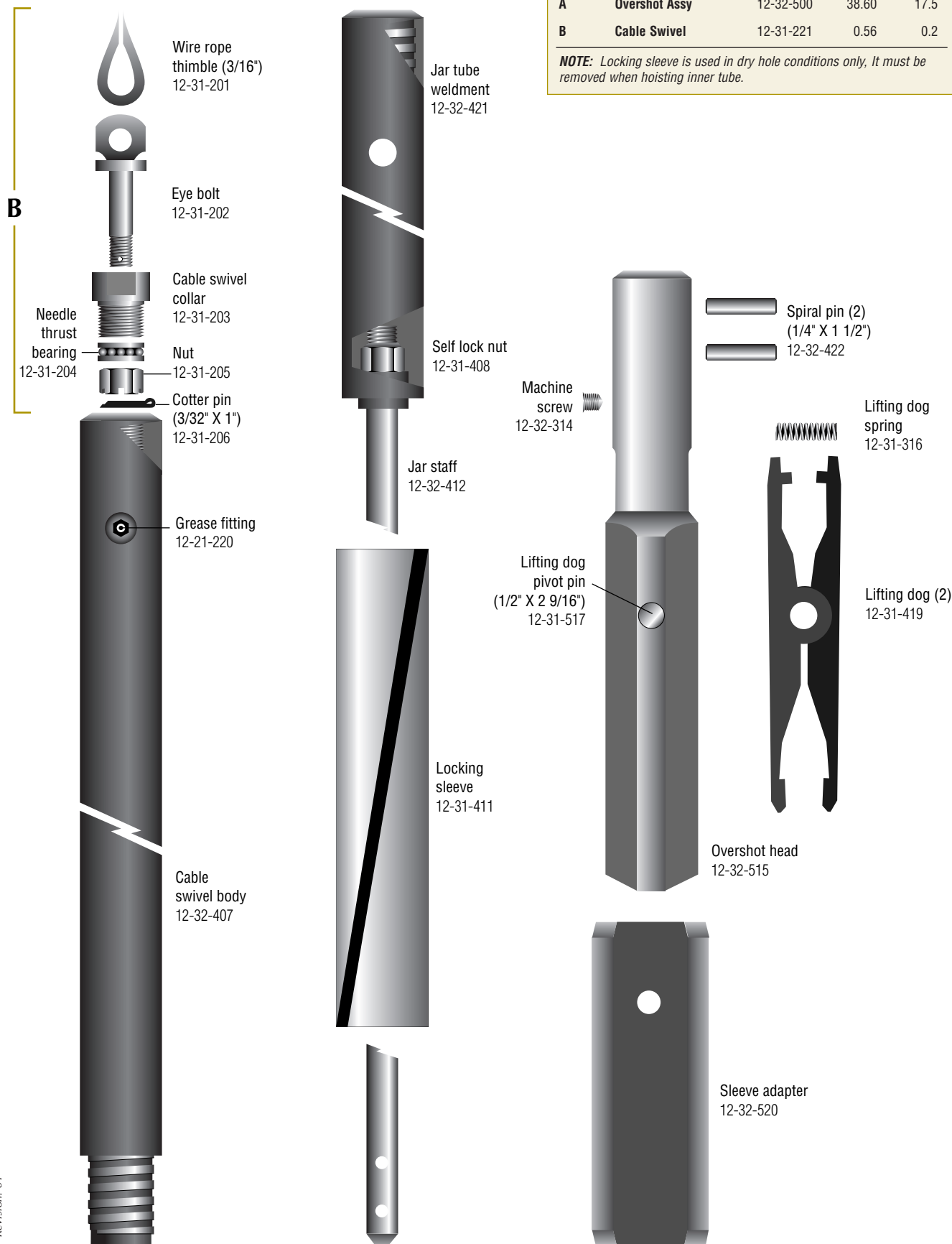
A



ASSEMBLIES

Group	Description	Part N ^o .	Weight	
			lb	kg
A	Overshot Assy	12-32-500	38.60	17.5
B	Cable Swivel	12-31-221	0.56	0.2

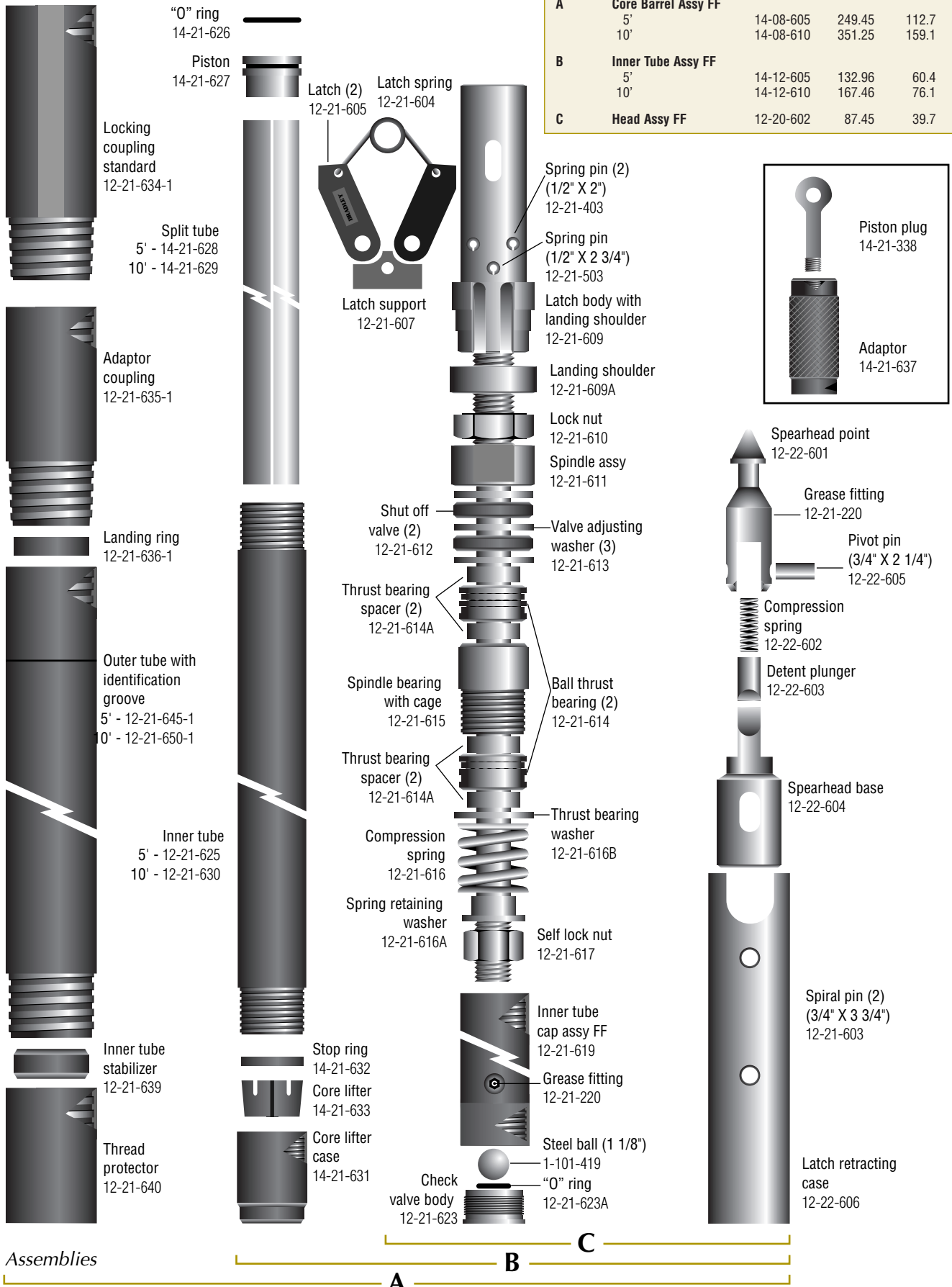
NOTE: Locking sleeve is used in dry hole conditions only, It must be removed when hoisting inner tube.



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Assemblies

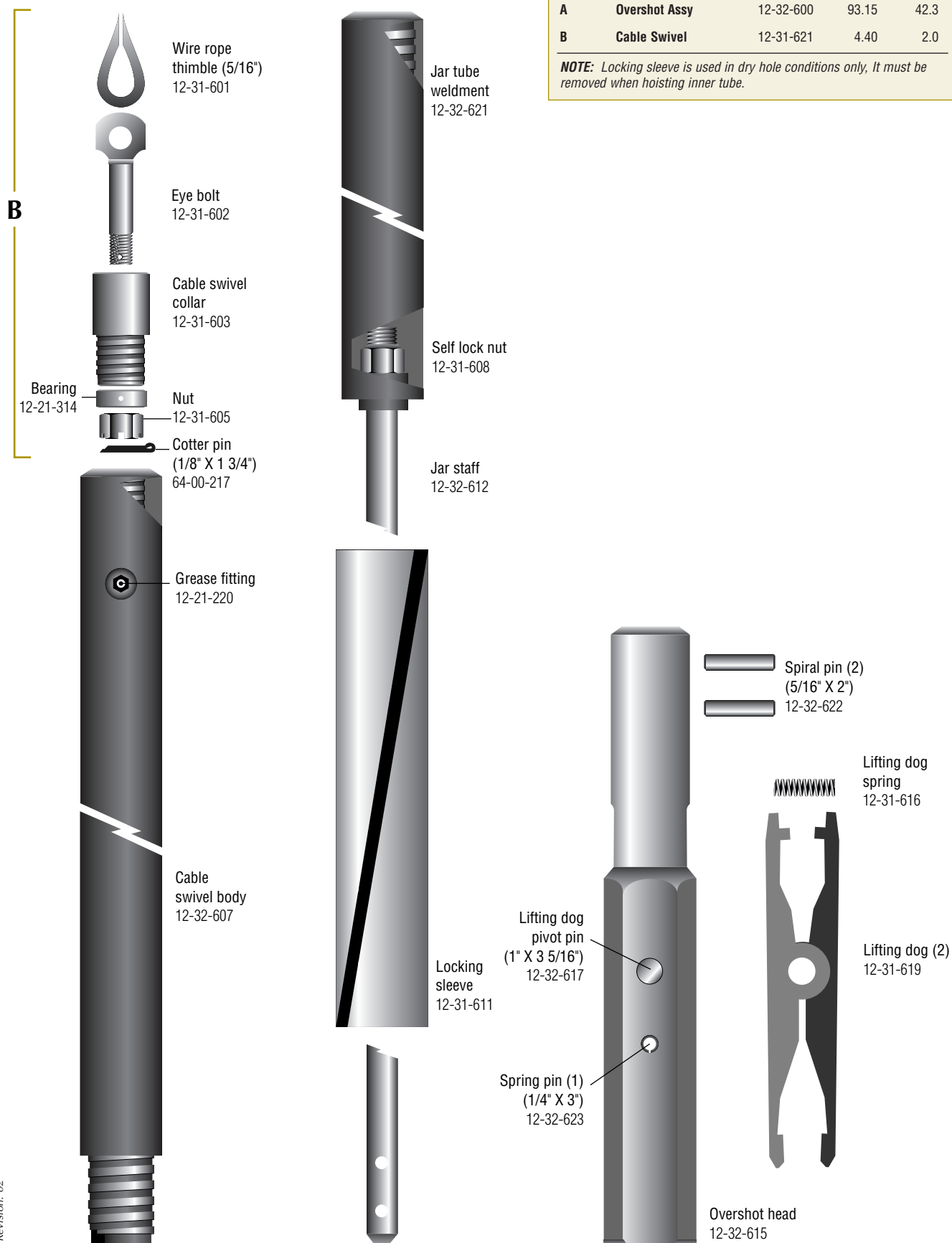
A



ASSEMBLIES

Group	Description	Part N ^o .	Weight	
			lb	kg
A	Overshot Assy	12-32-600	93.15	42.3
B	Cable Swivel	12-31-621	4.40	2.0

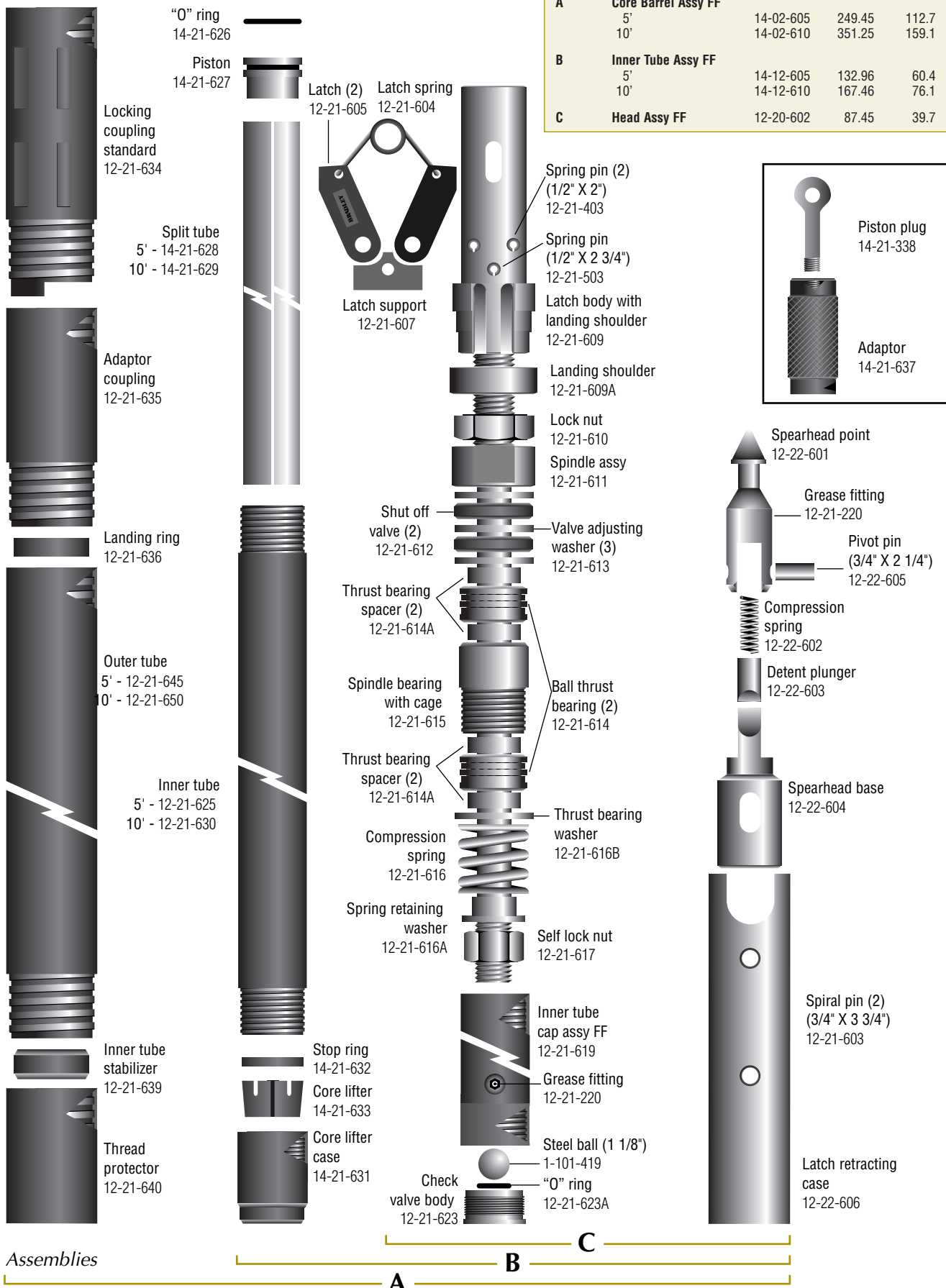
NOTE: Locking sleeve is used in dry hole conditions only, It must be removed when hoisting inner tube.



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Assemblies

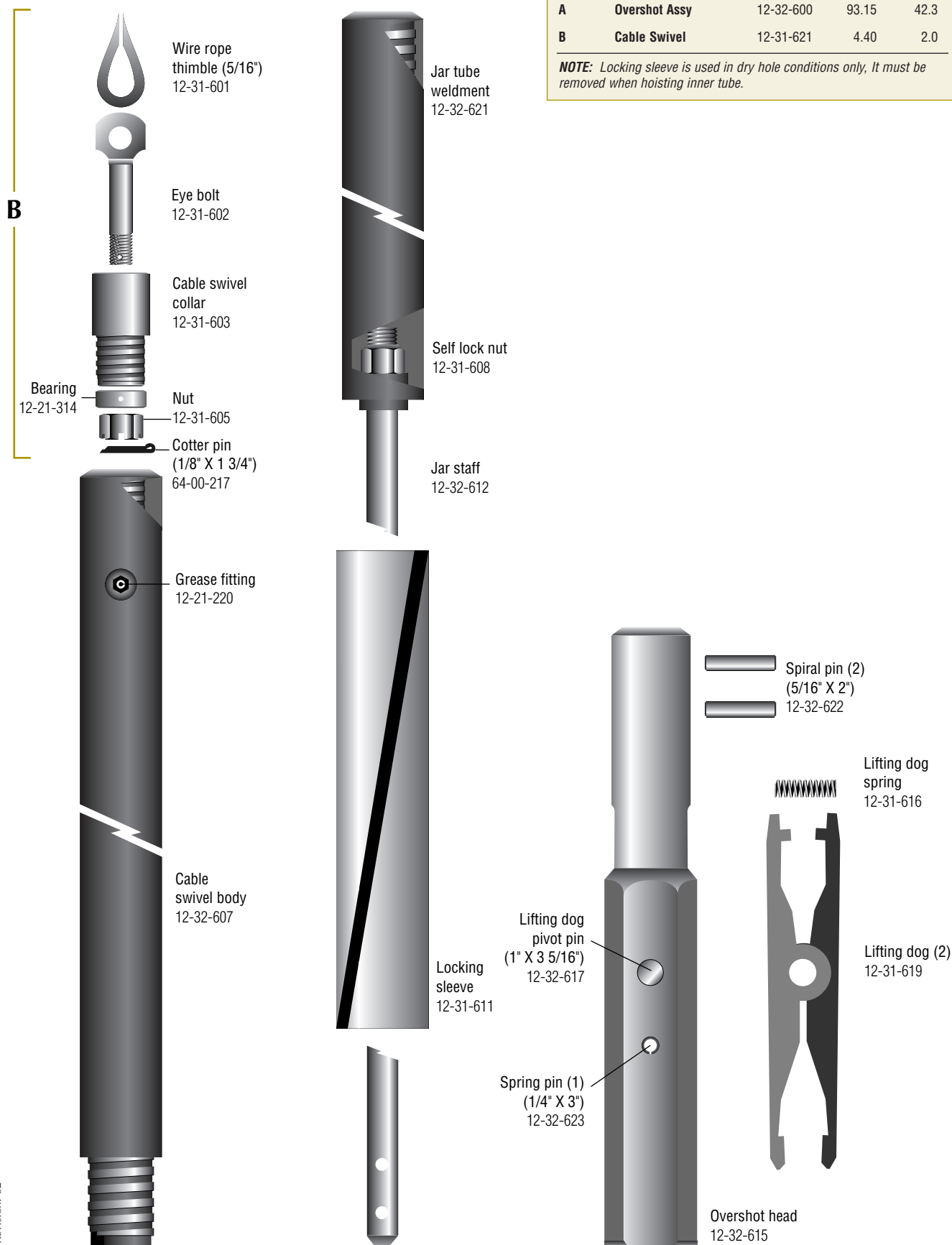
A



ASSEMBLIES

Group	Description	Part N°.	Weight	
			lb	kg
A	Overshot Assy	12-32-600	93.15	42.3
B	Cable Swivel	12-31-621	4.40	2.0

NOTE: Locking sleeve is used in dry hole conditions only, It must be removed when hoisting inner tube.



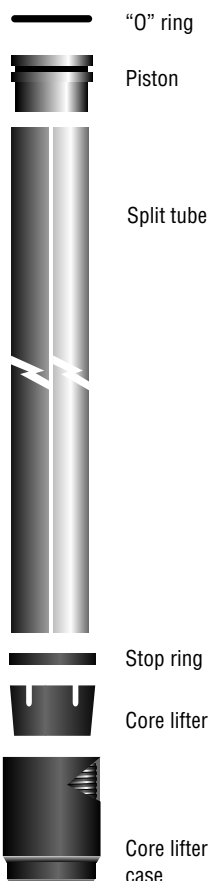
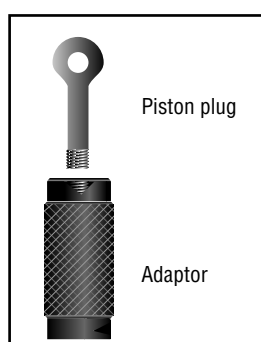
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Assemblies

A

ASSEMBLIES

Type	Part N ^o . 5'	Weight lb	Weight kg	Part N ^o . 10'	Weight lb	Weight kg
B W/L 3	12-19-305	5.74	2.6	12-19-310	9.74	4.4
N W/L 3	12-19-405	9.07	4.1	12-19-410	14.07	6.4
H W/L 3	12-19-505	13.11	5.9	12-19-510	18.11	8.2
HW W/L 3	12-19-605	15.01	6.8	12-19-610	20.01	9.1
P W/L 3	12-19-605	15.01	6.8	12-19-610	20.01	9.1

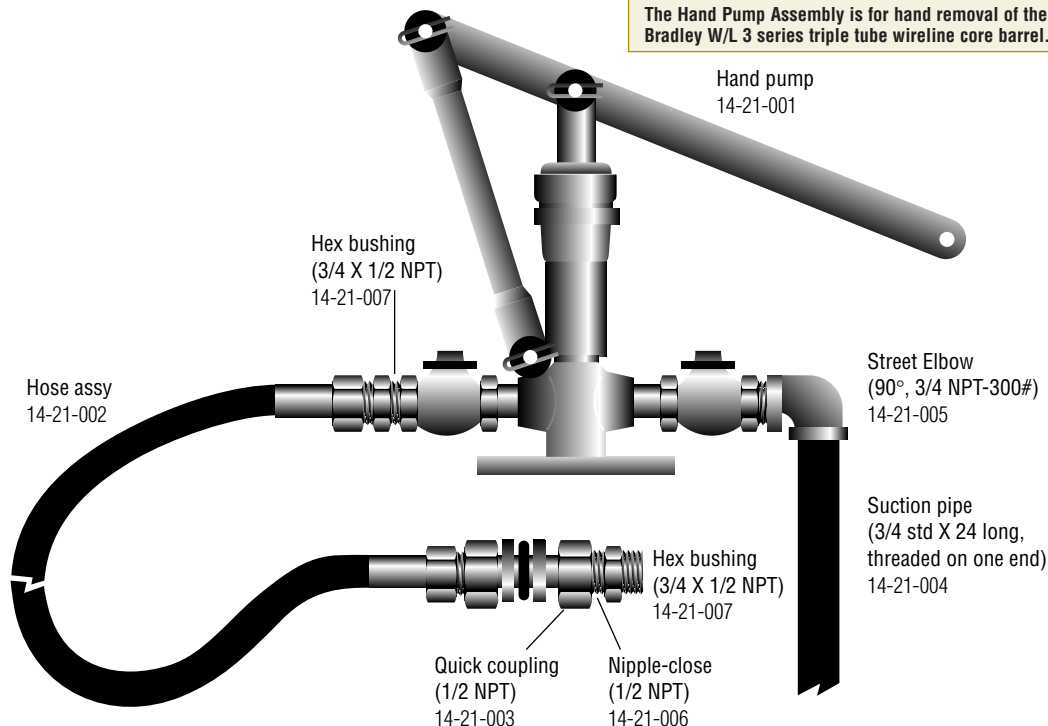


Piston plug:	B W/L 3:	14-21-338
	N W/L 3:	14-21-338
	H W/L 3:	14-21-338
	HW W/L 3:	14-21-338
	P W/L 3:	14-21-338
Adapter:	B W/L 3:	14-21-337
	N W/L 3:	14-21-437
	H W/L 3:	14-21-537
	HW W/L 3:	14-21-637
	P W/L 3:	14-21-637
"O" ring:	B W/L 3:	14-21-326
	N W/L 3:	14-21-426
	H W/L 3:	14-21-526
	HW W/L 3:	14-21-626
	P W/L 3:	14-21-626
Piston:	B W/L 3:	14-21-327
	N W/L 3:	14-21-427
	H W/L 3:	14-21-527
	HW W/L 3:	14-21-627
	P W/L 3:	14-21-627
Split tube:	5'	B W/L 3: 14-21-328
		N W/L 3: 14-21-428
		H W/L 3: 14-21-528
		HW W/L 3: 14-21-628
		P W/L 3: 14-21-628
	10'	B W/L 3: 14-21-329
		N W/L 3: 14-21-429
		H W/L 3: 14-21-529
		HW W/L 3: 14-21-629
		P W/L 3: 14-21-629
Stop ring:	B W/L 3:	14-21-332
	N W/L 3:	14-21-432
	H W/L 3:	14-21-532
	HW W/L 3:	14-21-632
	P W/L 3:	14-21-632
Core lifter:	B W/L 3:	14-21-333
	N W/L 3:	14-21-433
	H W/L 3:	14-21-533
	HW W/L 3:	14-21-633
	P W/L 3:	14-21-633
Core lifter case:	B W/L 3:	14-21-331
	N W/L 3:	14-21-431
	H W/L 3:	14-21-531
	HW W/L 3:	14-21-631
	P W/L 3:	14-21-631

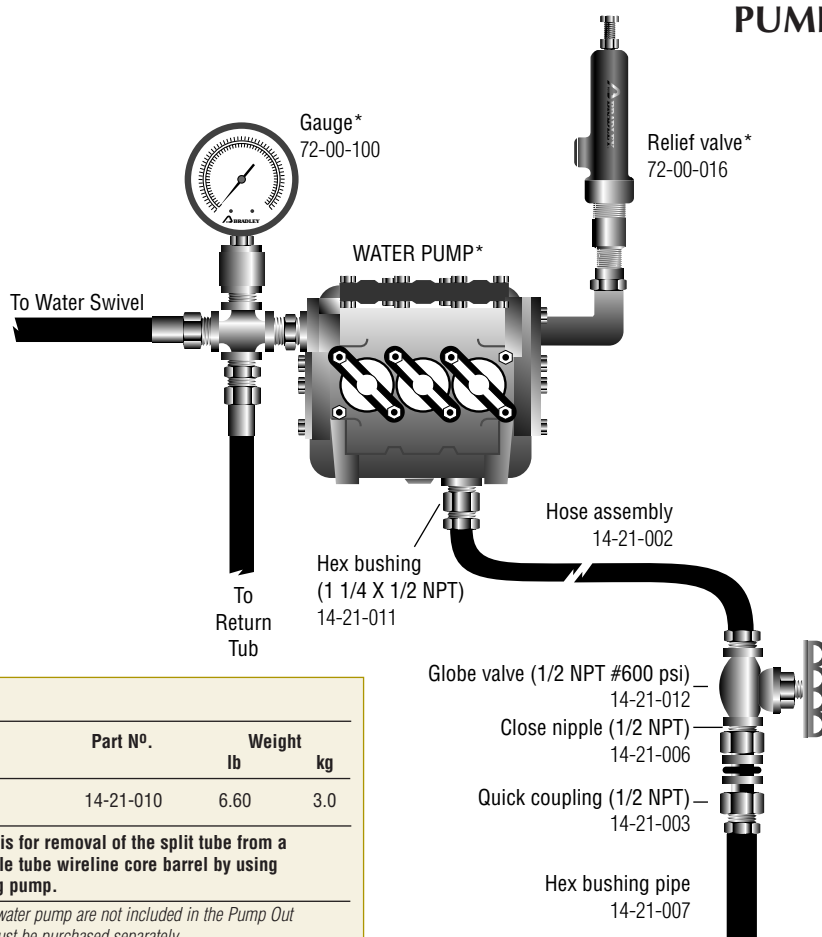
ASSEMBLY

Description	Part N ^o .	Weight	
		lb	kg
Hand Pump Assy	14-21-000	46.8	21.2

The Hand Pump Assembly is for hand removal of the split tube from a Bradley W/L 3 series triple tube wireline core barrel.



PUMP OUT ASSEMBLY



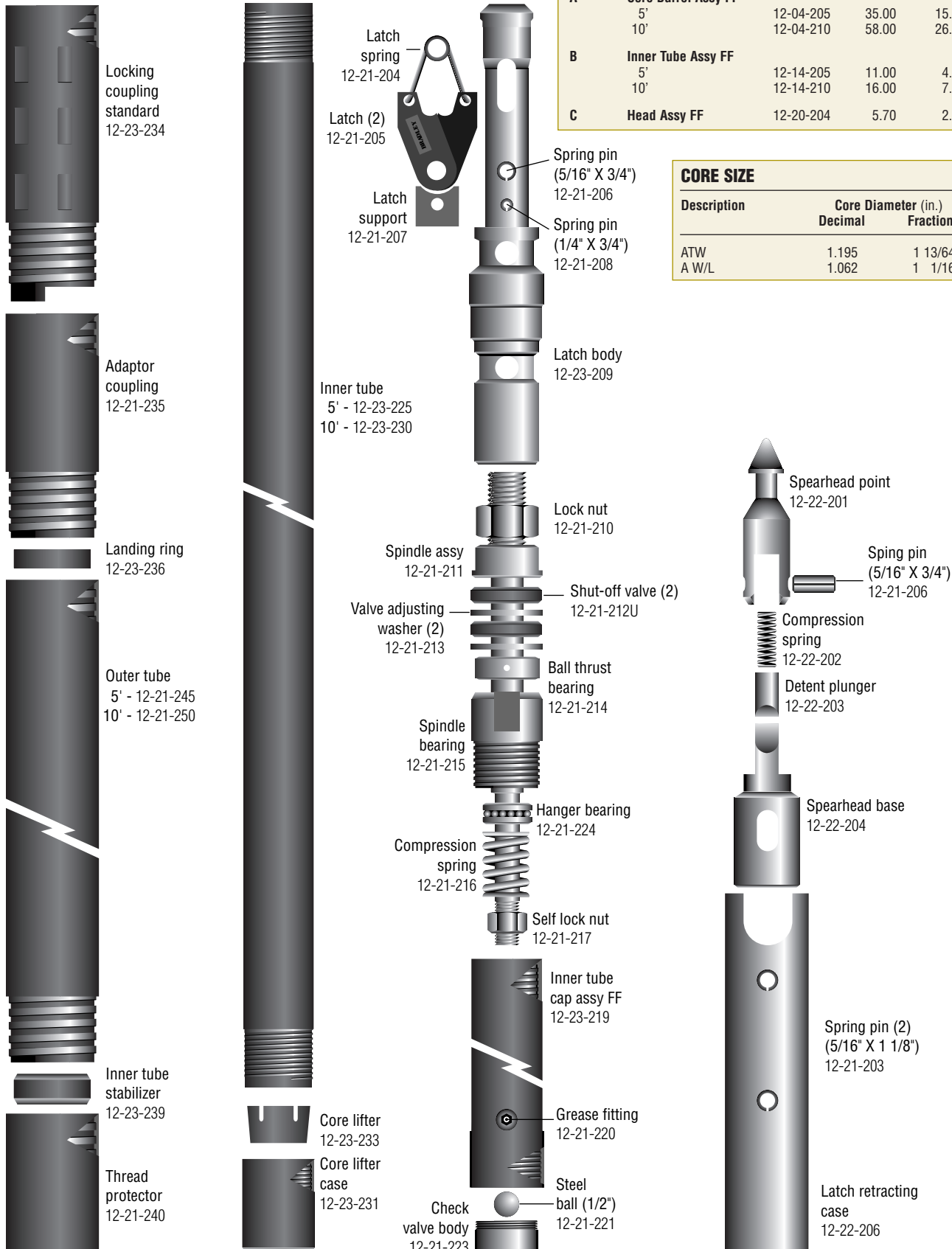
ASSEMBLY

Description	Part N ^o .	Weight	
		lb	kg
Pump Out Assy	14-21-010	6.60	3.0

The Pump Out Assembly is for removal of the split tube from a Bradley W/L 3 series triple tube wireline core barrel by using pressure from an existing pump.

*The relief valve, gauge and water pump are not included in the Pump Out Assembly. These products must be purchased separately.

L1479 - Revision: 00



ASSEMBLIES

Group	Description	Part N°.	Weight	
			lb	kg
A	Core Barrel Assy FF			
	5'	12-04-205	35.00	15.8
	10'	12-04-210	58.00	26.3
B	Inner Tube Assy FF			
	5'	12-14-205	11.00	4.9
	10'	12-14-210	16.00	7.2
C	Head Assy FF	12-20-204	5.70	2.5

CORE SIZE

Description	Core Diameter (in.)	
	Decimal	Fractional
ATW	1.195	1 13/64
A W/L	1.062	1 1/16

Assemblies

A

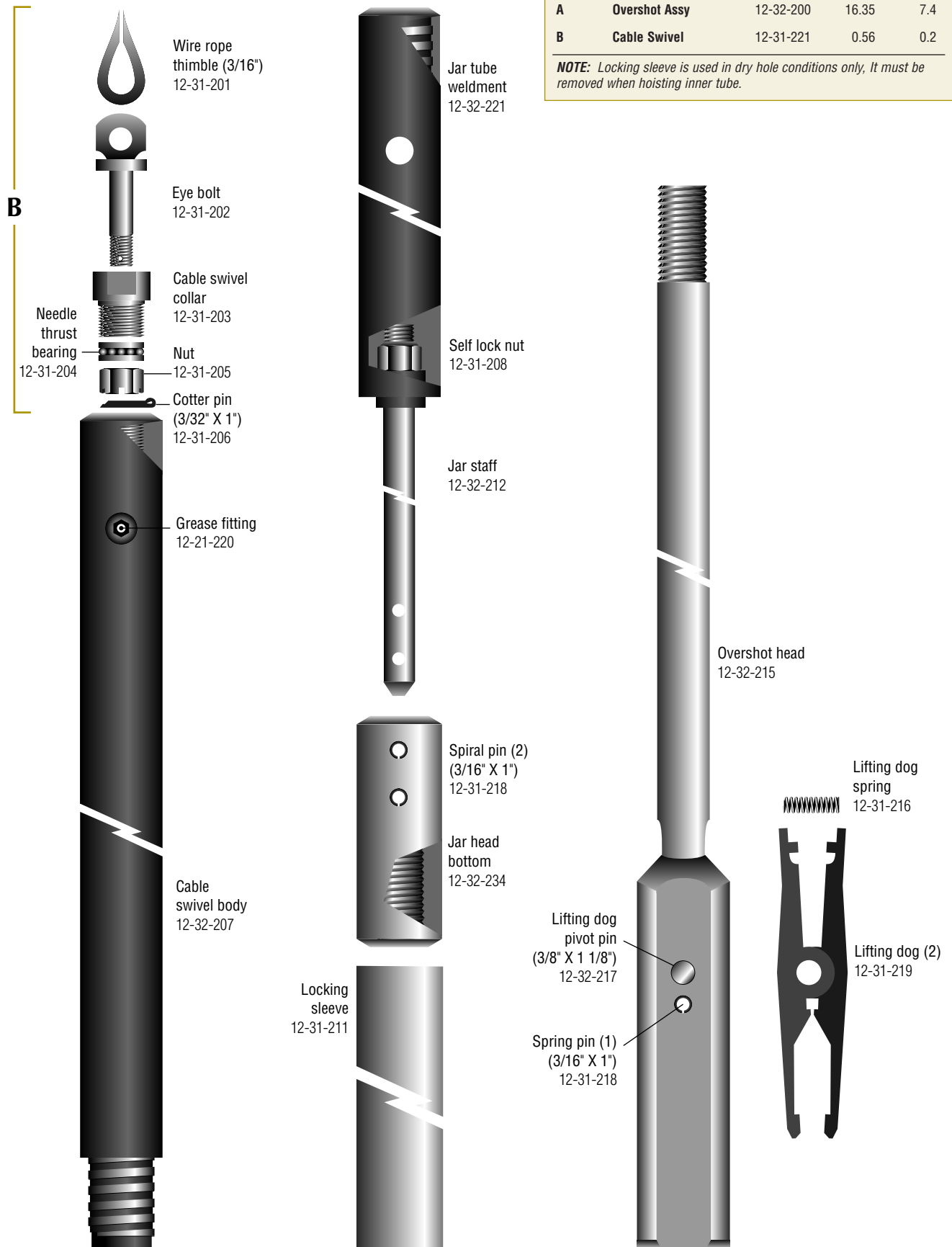
B

C

ASSEMBLIES

Group	Description	Part N ^o .	Weight	
			lb	kg
A	Overshot Assy	12-32-200	16.35	7.4
B	Cable Swivel	12-31-221	0.56	0.2

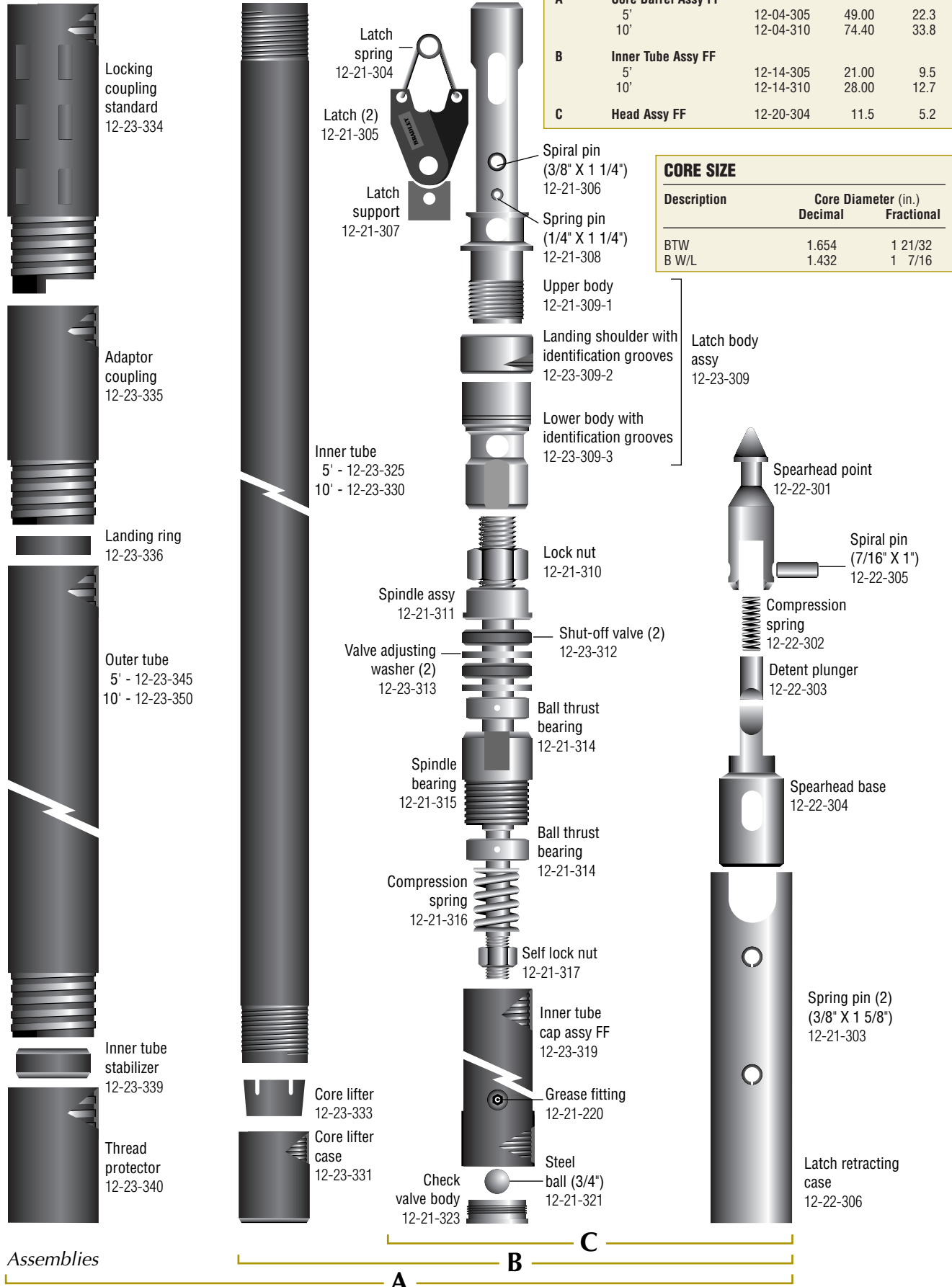
NOTE: Locking sleeve is used in dry hole conditions only, It must be removed when hoisting inner tube.

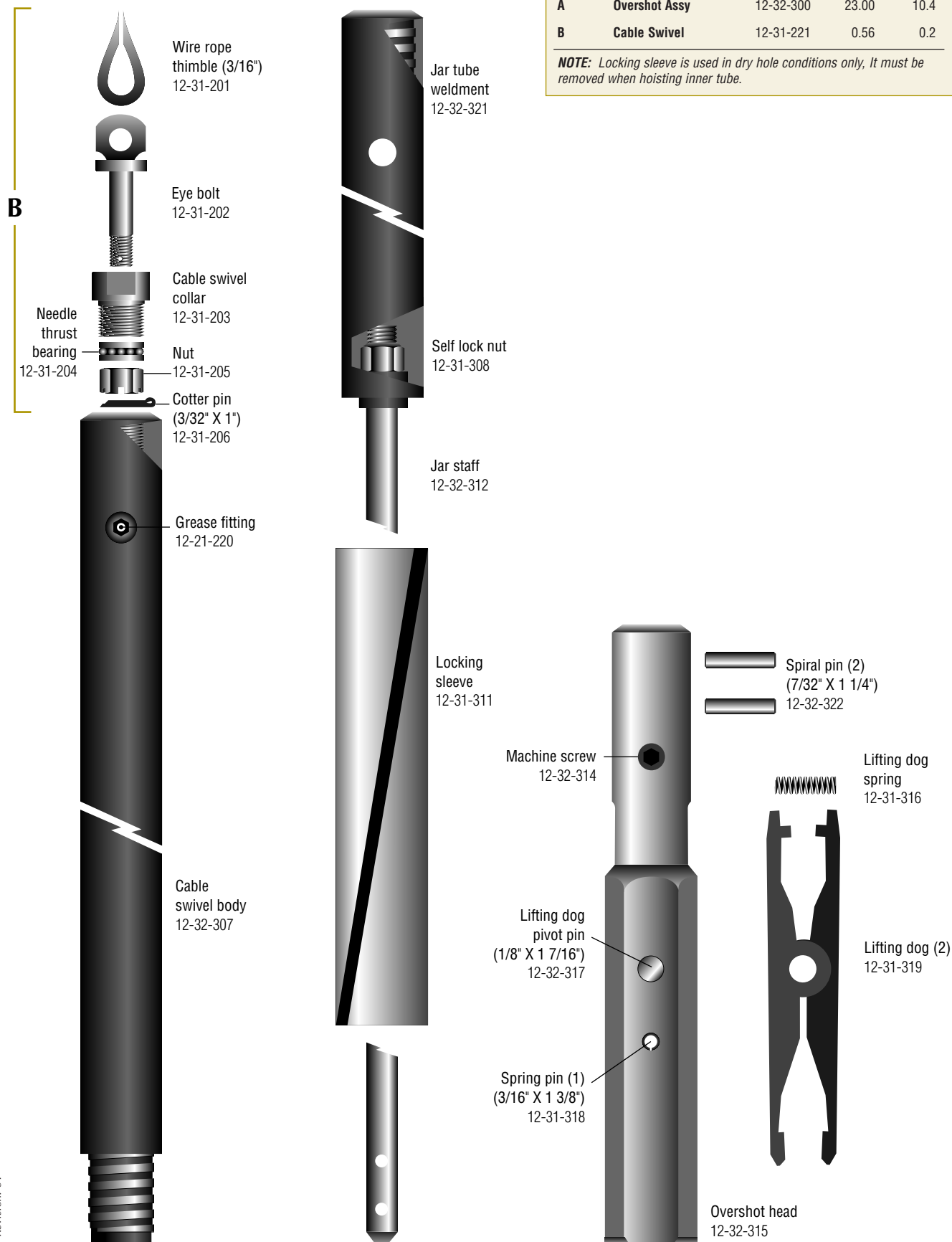


B2620 - Revision: 01

Assemblies

A

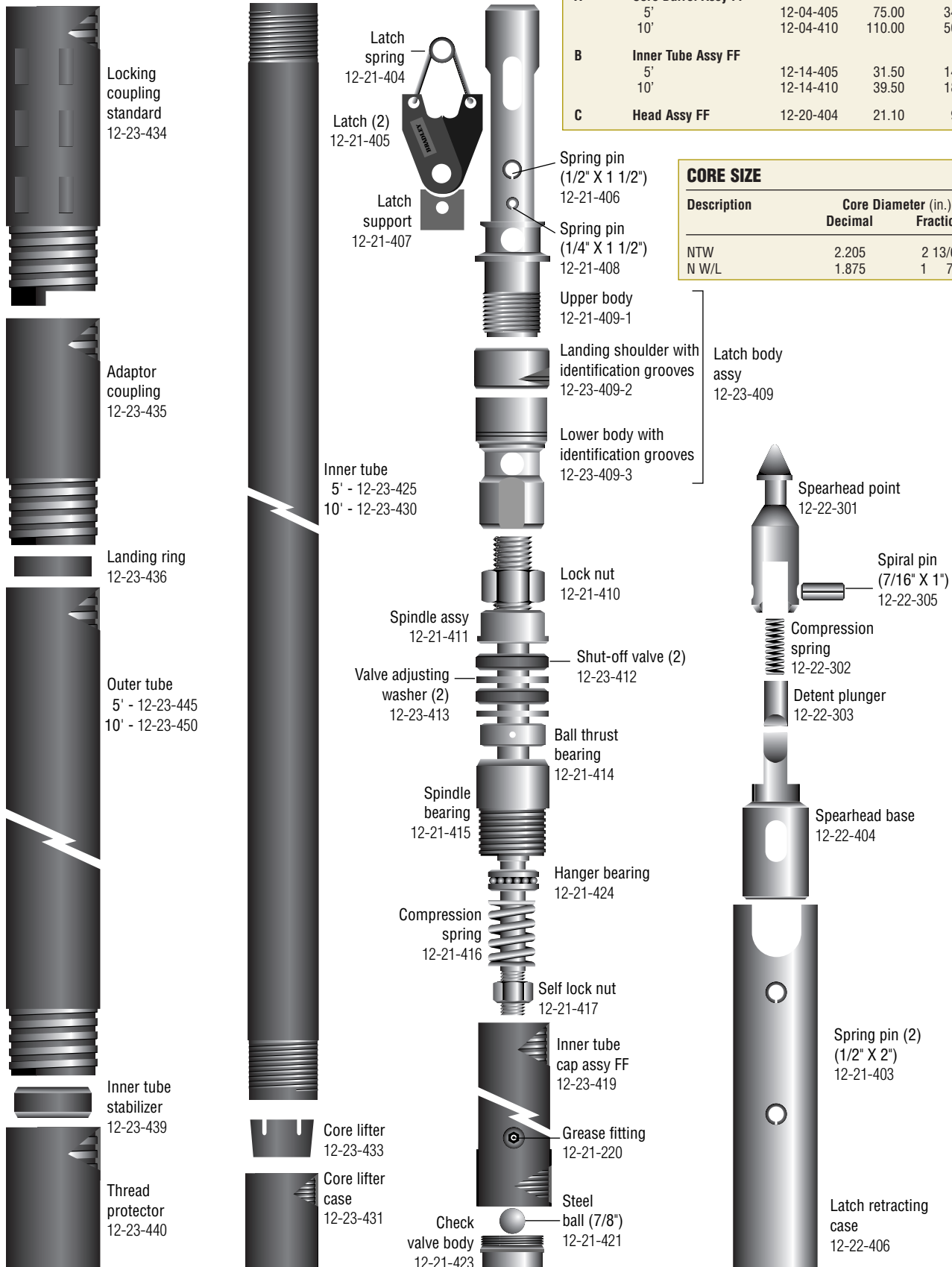




B2620 - Revision: 01

Assemblies

A



ASSEMBLIES

Group	Description	Part N°.	Weight lb	kg
A	Core Barrel Assy FF			
	5'	12-04-405	75.00	34.0
	10'	12-04-410	110.00	50.0
B	Inner Tube Assy FF			
	5'	12-14-405	31.50	14.3
	10'	12-14-410	39.50	18.0
C	Head Assy FF	12-20-404	21.10	9.6

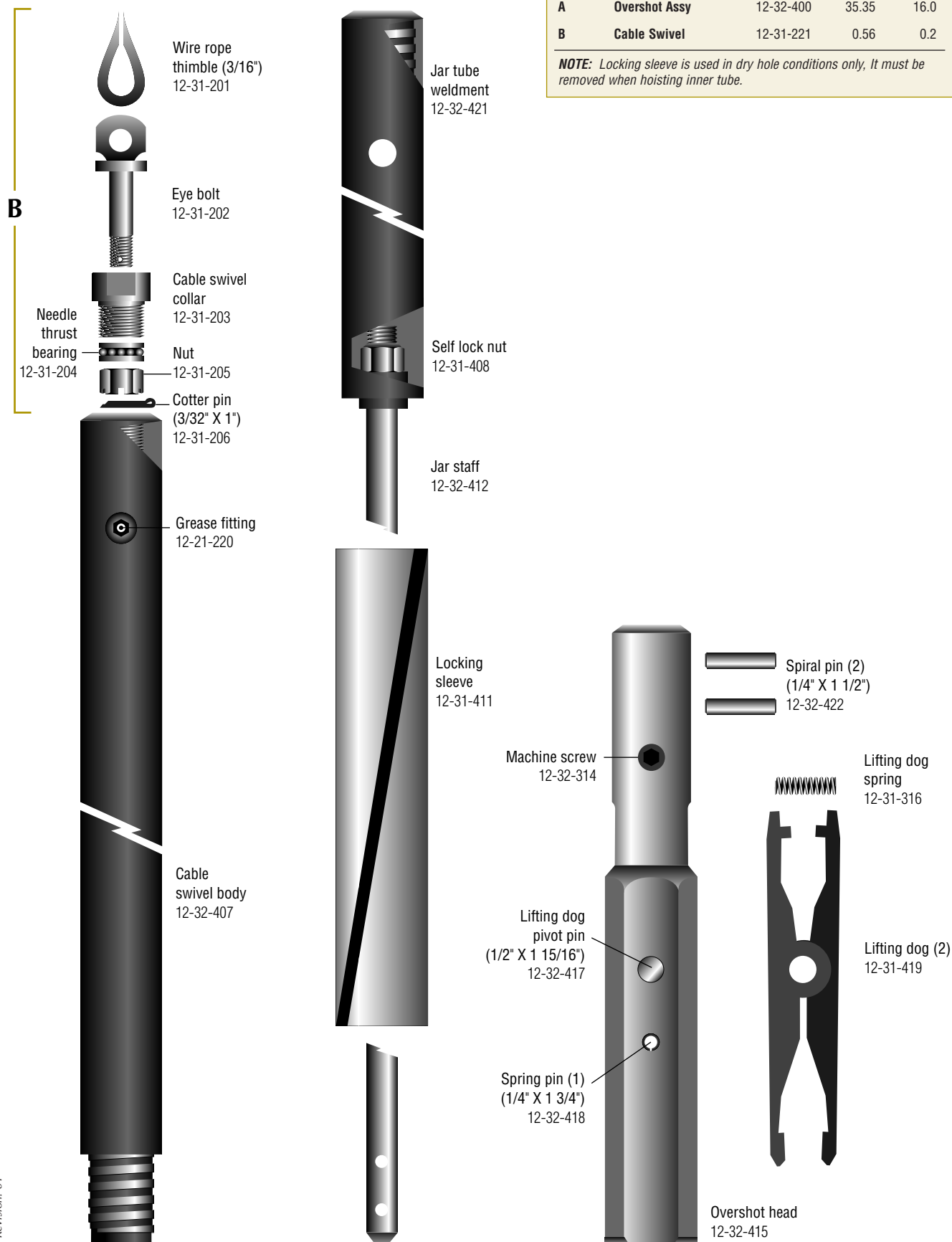
CORE SIZE

Description	Core Diameter (in.)	
	Decimal	Fractional
NTW	2.205	2 13/64
N W/L	1.875	1 7/8

ASSEMBLIES

Group	Description	Part N°.	Weight	
			lb	kg
A	Overshot Assy	12-32-400	35.35	16.0
B	Cable Swivel	12-31-221	0.56	0.2

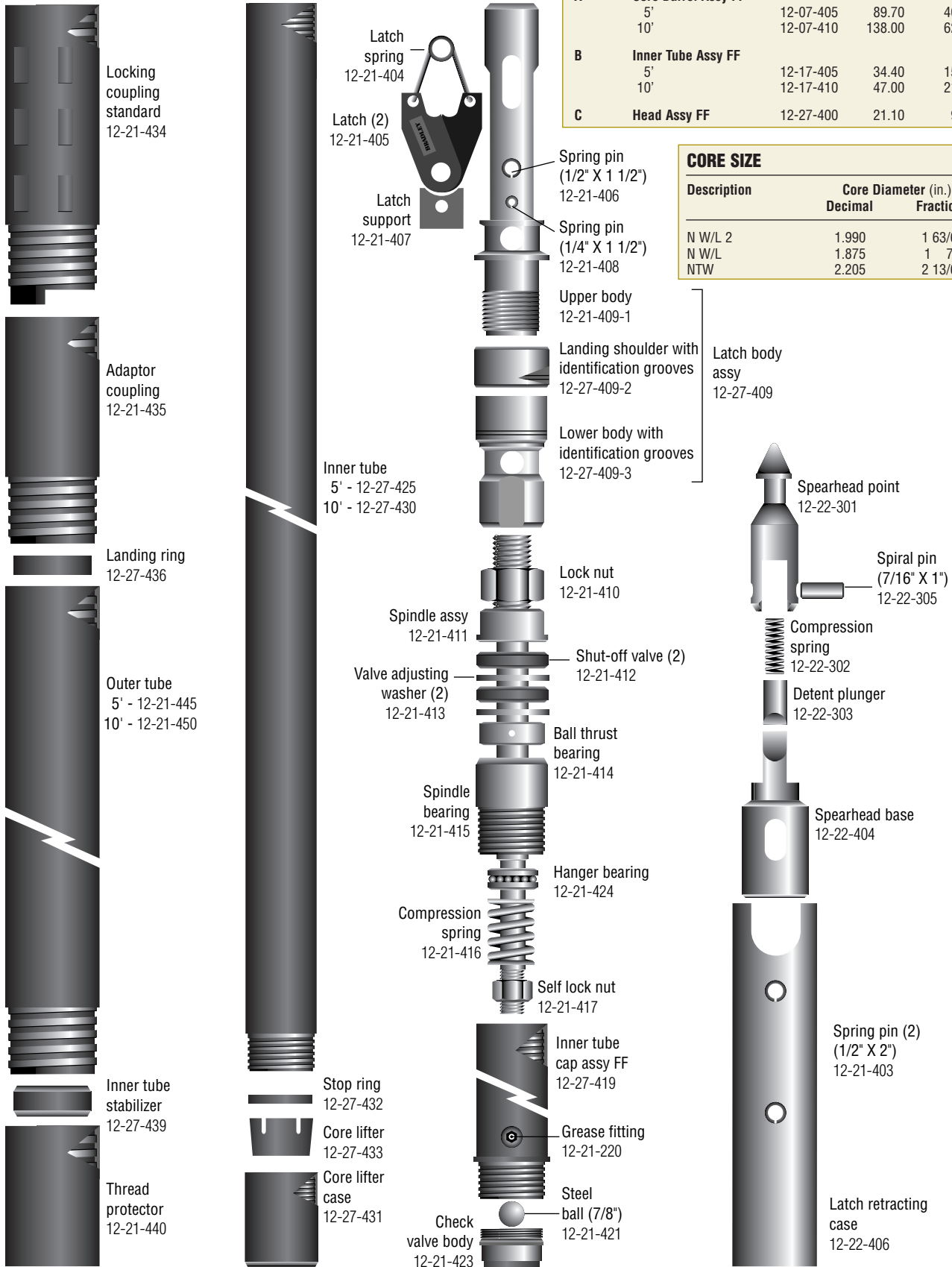
NOTE: Locking sleeve is used in dry hole conditions only, It must be removed when hoisting inner tube.



B2620 - Revision: 01

Assemblies

A



ASSEMBLIES

Group	Description	Part N ^o .	Weight	
			lb	kg
A	Core Barrel Assy FF			
	5'	12-07-405	89.70	40.7
	10'	12-07-410	138.00	62.4
B	Inner Tube Assy FF			
	5'	12-17-405	34.40	15.6
	10'	12-17-410	47.00	21.3
C	Head Assy FF	12-27-400	21.10	9.6

CORE SIZE

Description	Core Diameter (in.)	
	Decimal	Fractional
N W/L 2	1.990	1 63/64
N W/L	1.875	1 7/8
NTW	2.205	2 13/64

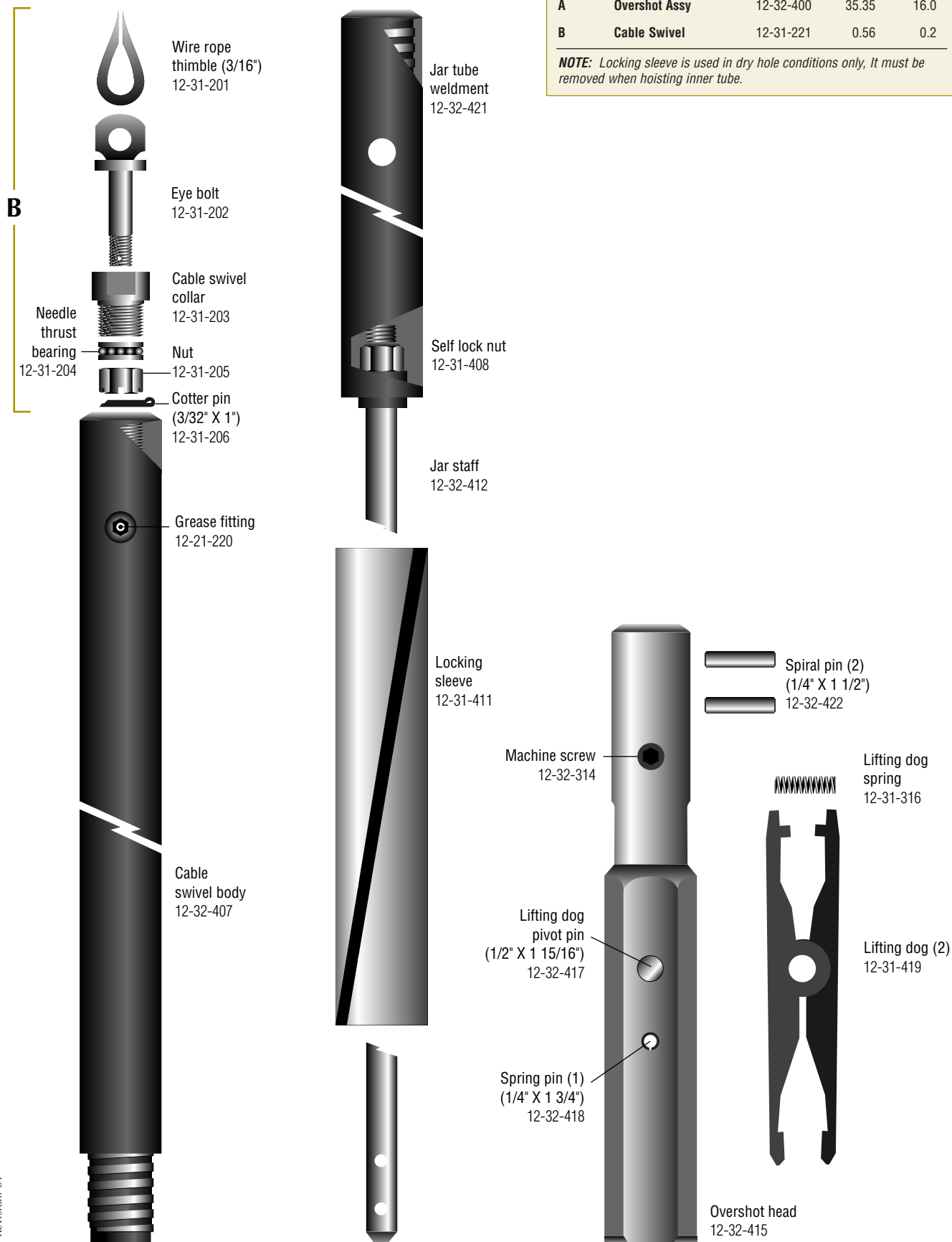
Assemblies

A-40

ASSEMBLIES

Group	Description	Part N°.	Weight	
			lb	kg
A	Overshot Assy	12-32-400	35.35	16.0
B	Cable Swivel	12-31-221	0.56	0.2

NOTE: Locking sleeve is used in dry hole conditions only, It must be removed when hoisting inner tube.



B2620 - Revision: 01

Assemblies

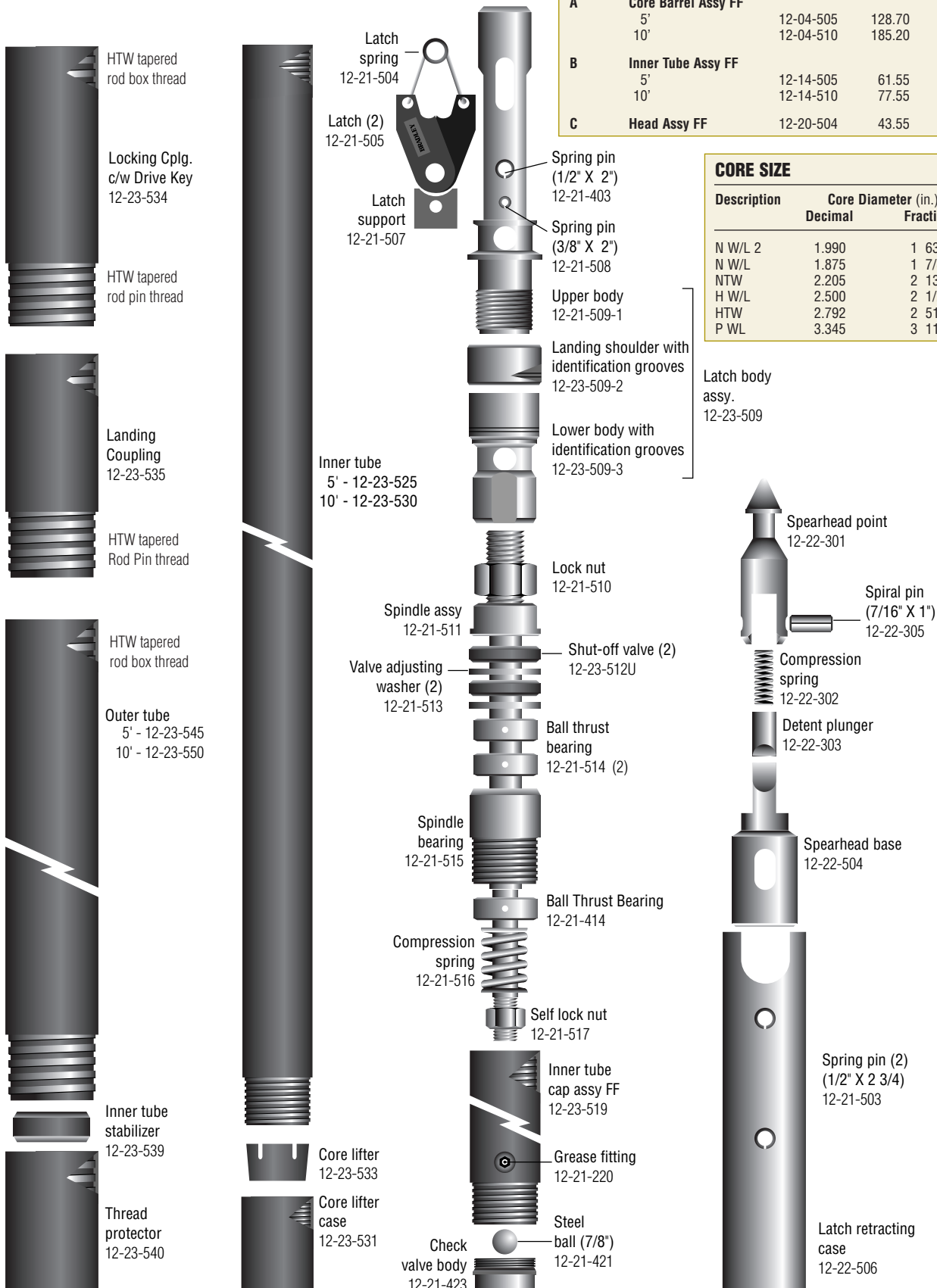
A

ASSEMBLIES

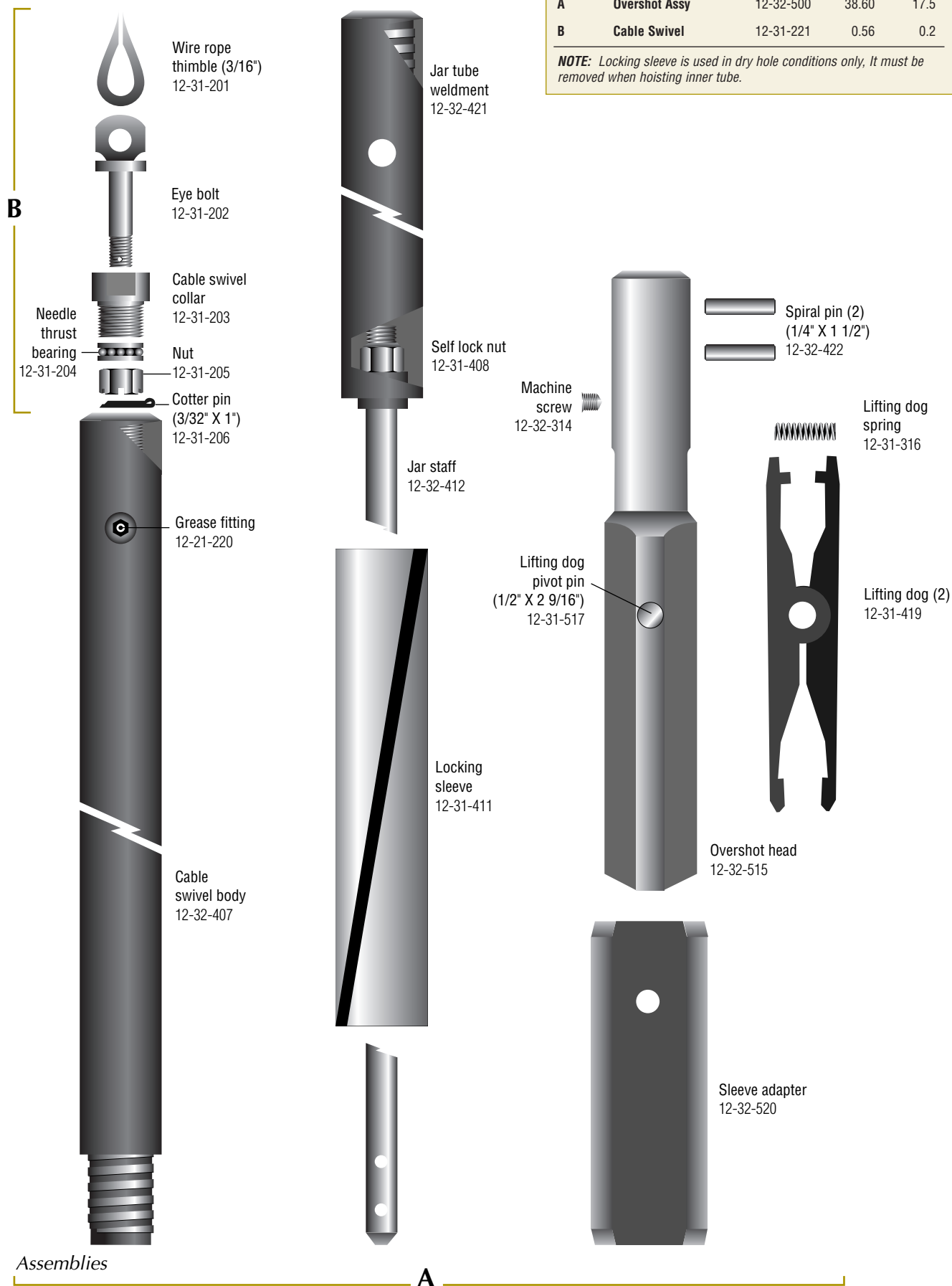
Group	Description	Part N ^o .	Weight	
			lb	kg
A	Core Barrel Assy FF			
	5'	12-04-505	128.70	58.40
	10'	12-04-510	185.20	84.00
B	Inner Tube Assy FF			
	5'	12-14-505	61.55	27.90
	10'	12-14-510	77.55	35.20
C	Head Assy FF	12-20-504	43.55	19.74

CORE SIZE

Description	Core Diameter (in.)	
	Decimal	Fractional
N W/L 2	1.990	1 63/64
N W/L	1.875	1 7/8
NTW	2.205	2 13/64
H W/L	2.500	2 1/2
HTW	2.792	2 51/64
P WL	3.345	3 11/32



Assemblies



**FULL HOLE
OUTER TUBE**

5':	
ATW:	12-21-294
BTW:	12-23-394
NTW:	12-23-494
N W/L 2:	12-21-494
HTW:	12-23-594

10':	
ATW:	12-21-295
BTW:	12-23-395
NTW:	12-23-495
N W/L 2:	12-21-495
HTW:	12-23-595

**HEAT TREATED
OUTER TUBE**

5':	
ATW:	12-21-245HT
BTW:	12-23-345HT
NTW:	12-23-445HT
N W/L 2:	12-21-445HT
HTW:	12-23-545HT

10':	
ATW:	12-21-250HT
BTW:	12-23-350HT
NTW:	12-23-450HT
N W/L 2:	12-21-450HT
HTW:	12-23-550HT

**CHROME PLATED
OUTER TUBE**

5':	
ATW:	12-21-285
BTW:	12-23-385
NTW:	12-23-485
N W/L 2:	12-21-485
HTW:	12-23-585

10':	
ATW:	12-21-290
BTW:	12-23-390
NTW:	12-23-490
N W/L 2:	12-21-490
HTW:	12-23-590



CHROME PLATED INNER TUBE

5':
 ATW: 12-23-275
 BTW: 12-23-375
 NTW: 12-23-475

10':
 ATW: 12-23-280
 BTW: 12-23-380
 NTW: 12-23-480



INNER TUBE COUPLING

ATW: 12-23-291
 BTW: 12-23-391
 NTW: 12-23-491



CHROME PLATED INNER TUBE 6' EXTENSION

ATW: 12-23-276
 BTW: 12-23-376
 NTW: 12-23-476



CHROME PLATED INNER TUBE

5':
 N W/L 2: 12-27-475
 HTW: 12-23-575

10':
 N W/L 2: 12-27-480
 HTW: 12-23-580



INNER TUBE EXTENSION (Straight Hole Reaming Shell)

ATW: 12-23-292
 (3 5/8")
 BTW: 12-23-392
 (5 3/4")
 NTW: 12-23-492
 (5 3/4")
 NTW: 12-23-592
 (5 3/4")



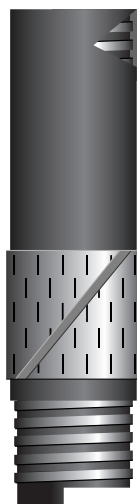
INNER TUBE 6' EXTENSION

ATW: 12-23-226
 BTW: 12-23-326
 NTW: 12-23-426



INNER TUBE EXTENSION

N W/L 2: 12-27-481



**THIN WALL CARBIDE
LOCKING COUPLING**

2.5" Carbide:

ATW: 12-23-282
 BTW: 12-23-382
 NTW: 12-23-482
 HTW: 12-23-582



**THIN WALL FULL HOLE
LOCKING COUPLING**

ATW: 12-23-234H
 BTW: 12-23-334H
 NTW: 12-23-434H
 HTW: 12-23-534H

THIN WALL ADAPTOR COUPLING OPTIONS



**THIN WALL HEAT TREATED
ADAPTOR COUPLING**

ATW: 12-21-235HT
 BTW: 12-23-335HT
 NTW: 12-23-435HT
 HTW: 12-23-535HT

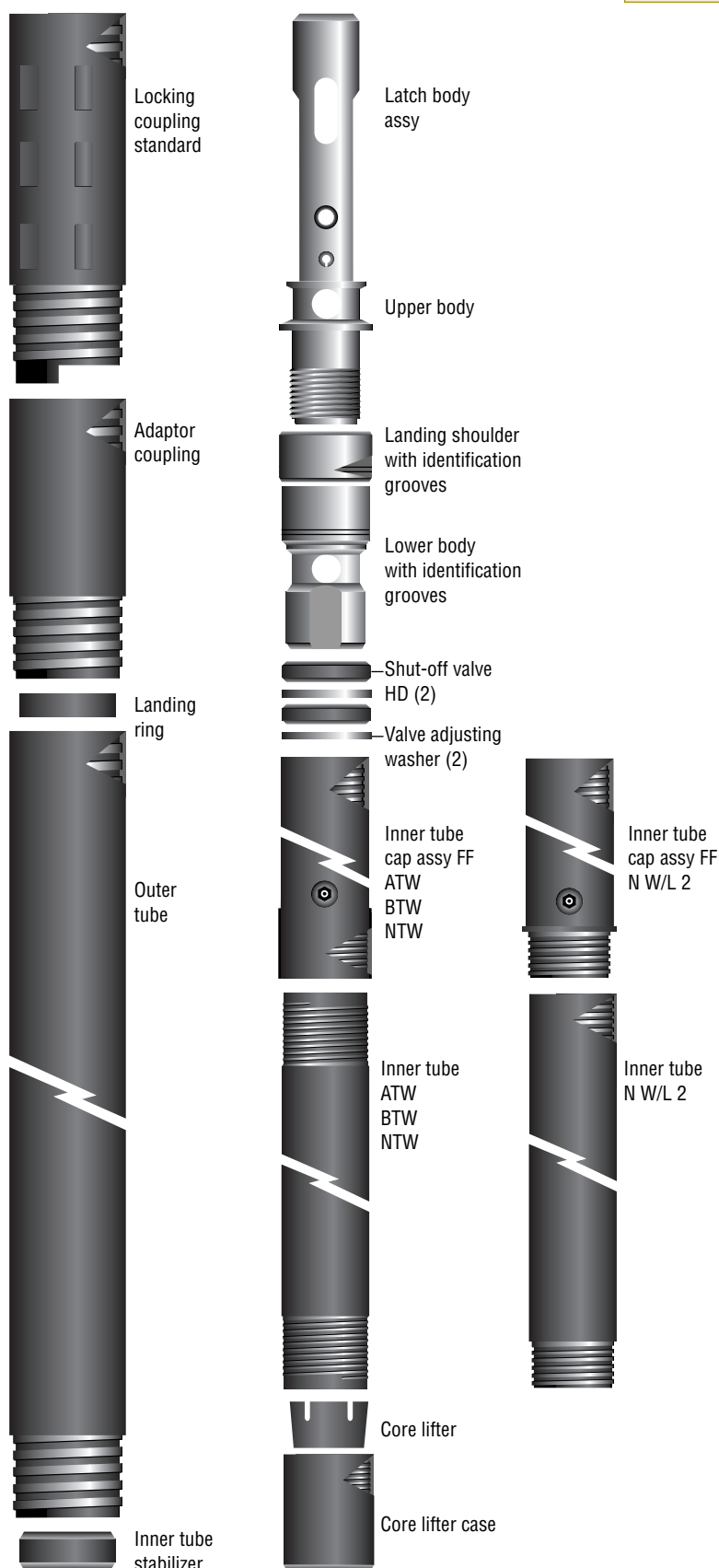


**THIN WALL FULL HOLE
ADAPTOR COUPLING**

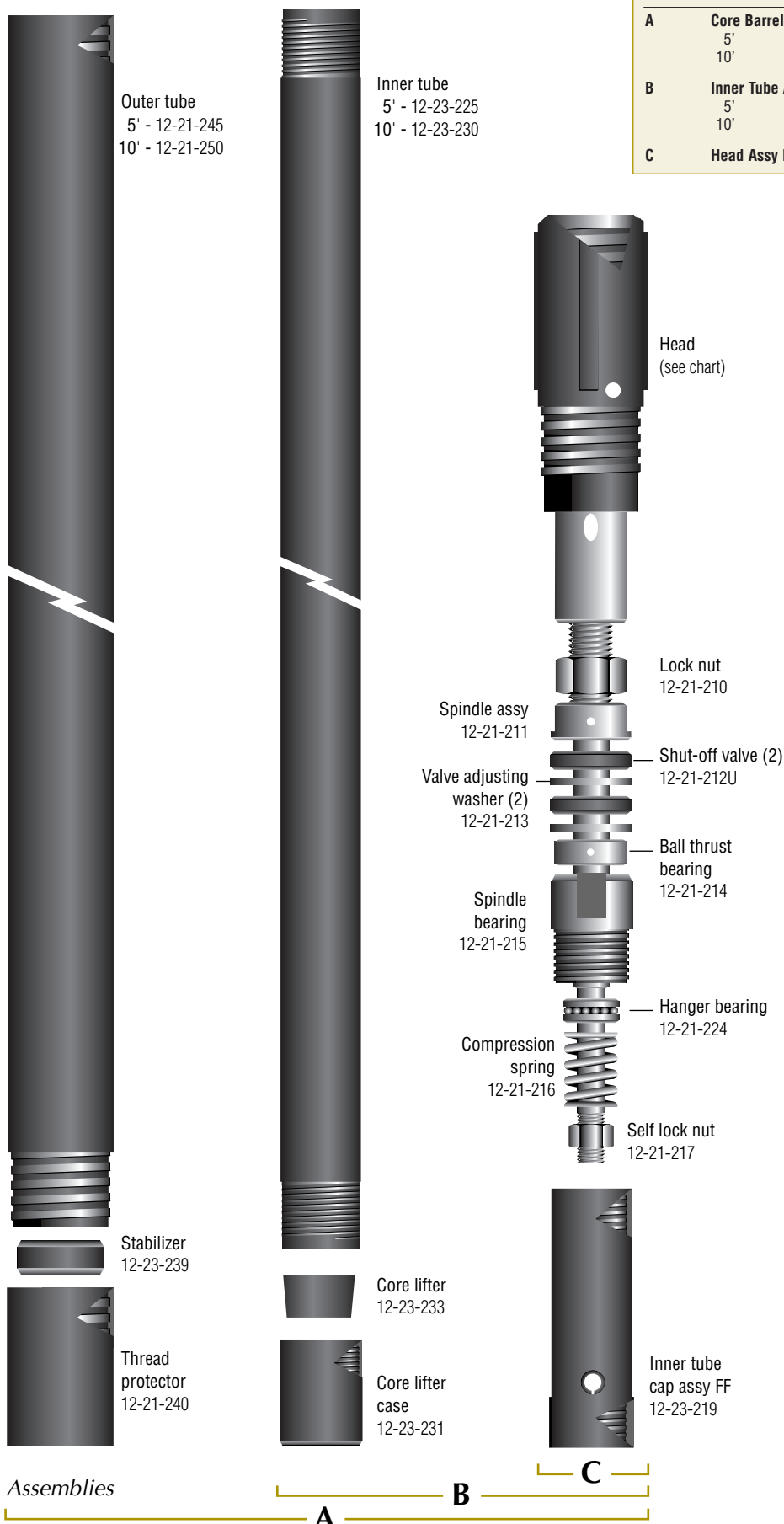
ATW: 12-21-235H
 BTW: 12-23-335H
 NTW: 12-23-435H
 HTW: 12-23-535H

ASSEMBLY CONVERSION KITS

Group	Part N°.	Weight	
		lb	kg
ATW	12-23-200	19.5	8.9
BTW	12-23-300	91.91	41.8
NTW	12-23-400	138.38	62.9
N W/L 2	12-27-401	21.55	9.8



Locking coupling standard:	ATW:	12-23-234
	BTW:	12-23-334
	NTW:	12-23-434
Adaptor coupling:	BTW:	12-23-335
	NTW:	12-23-435
Landing ring:	ATW:	12-23-236
	BTW:	12-23-336
	NTW:	12-23-436
	N W/L 2:	12-27-436
Outer tube: 5'	BTW:	12-23-345
	NTW:	12-23-445
	BTW:	12-23-350
	NTW:	12-23-450
Inner tube stabilizer:	ATW:	12-23-239
	BTW:	12-23-339
	NTW:	12-23-439
	N W/L 2:	12-27-439
Inner tube: 5'	ATW:	12-23-225
	BTW:	12-23-325
	NTW:	12-23-425
	N W/L 2:	12-27-425
Inner tube: 10'	ATW:	12-23-230
	BTW:	12-23-330
	NTW:	12-23-430
	N W/L 2:	12-27-430
Inner tube cap assy FF:	ATW:	12-23-219
	BTW:	12-23-319
	NTW:	12-23-419
	N W/L 2:	12-27-419
Core lifter:	ATW:	12-23-233
	BTW:	12-23-333
	NTW:	12-23-433
	N W/L 2:	12-27-433
Core lifter case:	ATW:	12-23-231
	BTW:	12-23-331
	NTW:	12-23-431
	N W/L 2:	12-27-431
Stop ring:	N W/L 2:	12-27-432
Latch body assy:	ATW:	12-23-209
	BTW:	12-23-309
	NTW:	12-23-409
	N W/L 2:	12-27-409
Shut-off valve:	BTW:	12-23-312
	NTW:	12-23-412
Valve adjusting washer:	BTW:	12-23-313
	NTW:	12-23-413



ASSEMBLIES

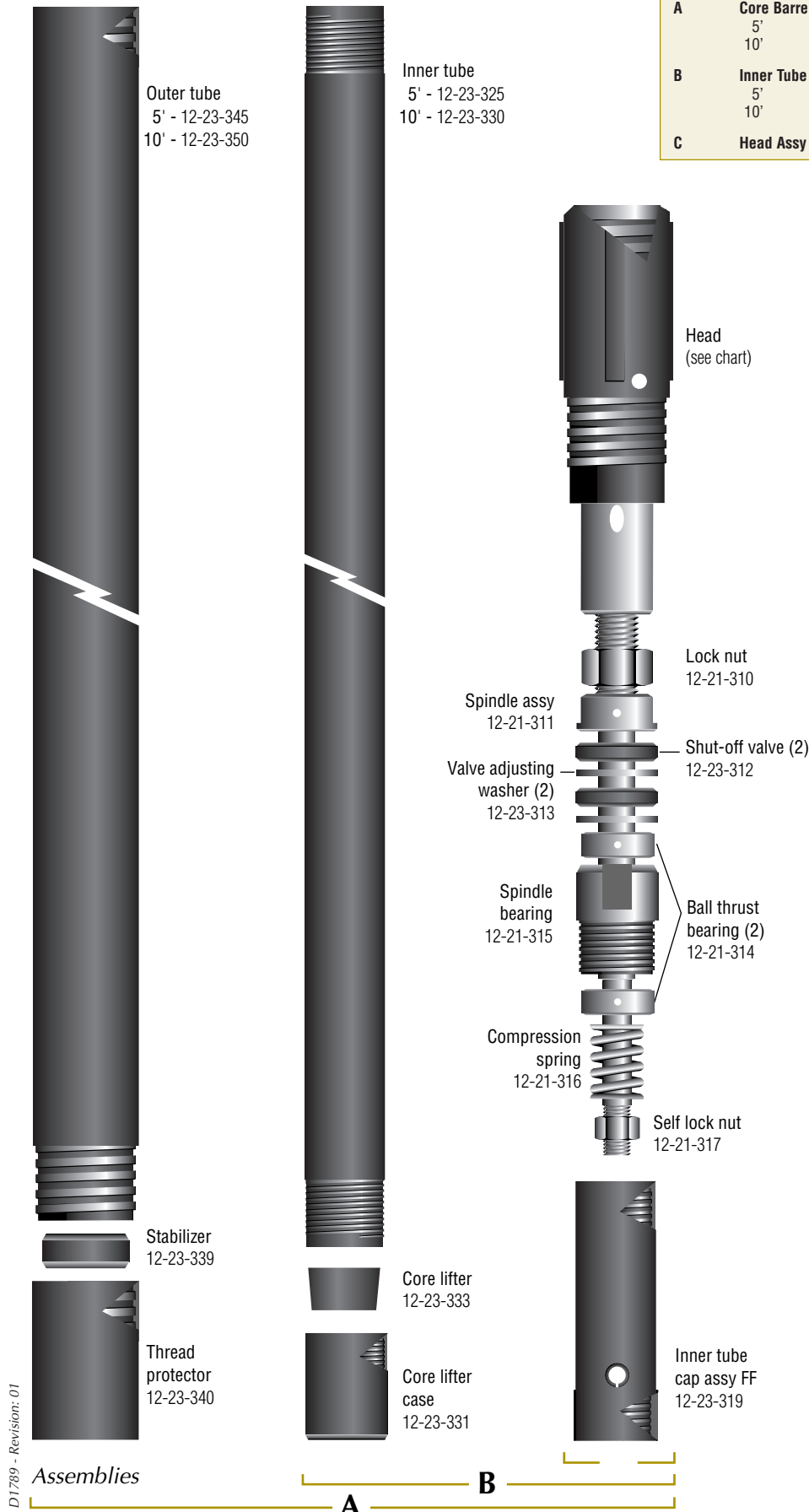
Group	Description	Part N ^o .	Weight	
			lb	kg
A	Core Barrel Assy FF			
	5'	19-00-205	32.93	15.0
	10'	19-00-210	54.43	24.7
B	Inner Tube Assy FF			
	5'	19-10-205	11.93	5.4
	10'	19-10-210	16.93	7.7
C	Head Assy FF	19-10-200	6.76	3.1

AT HEAD

AW rod box:	19-10-201
AWJ rod box:	19-10-202
ATW rod box:	19-10-203
ATW rod box with carbide:	19-10-203C
EW rod box:	19-10-204

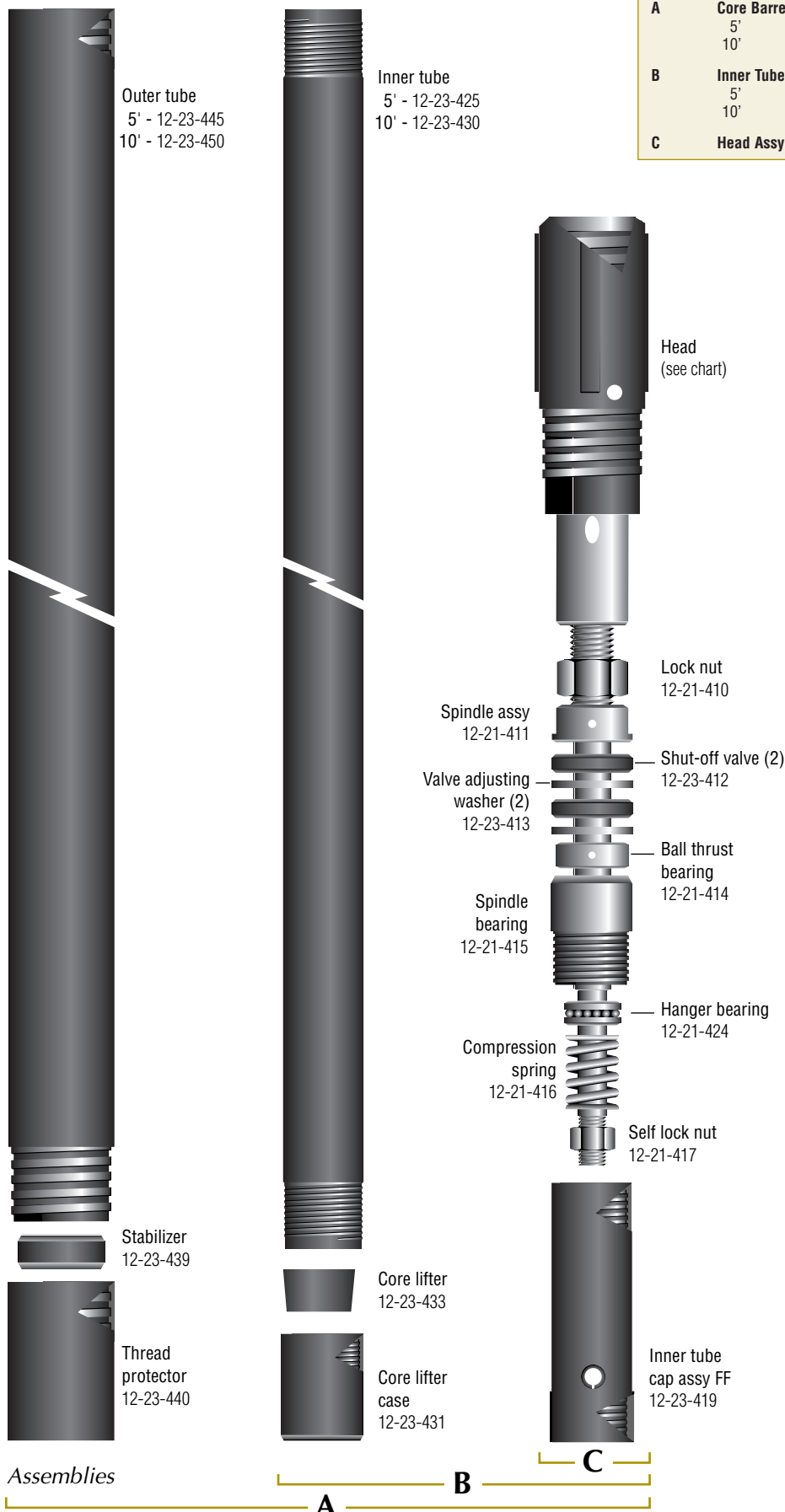
ASSEMBLIES

Group	Description	Part N°.	Weight	
			lb	kg
A	Core Barrel Assy FF			
	5'	19-00-305	58.84	26.3
	10'	19-00-310	76.34	34.7
B	Inner Tube Assy FF			
	5'	19-10-305	17.83	8.1
	10'	19-10-310	24.33	11.1
C	Head Assy FF	19-10-300	10.58	4.8



BT HEAD

BW rod box:	19-10-301
BWJ rod box:	19-10-302
BTW rod box:	19-10-303



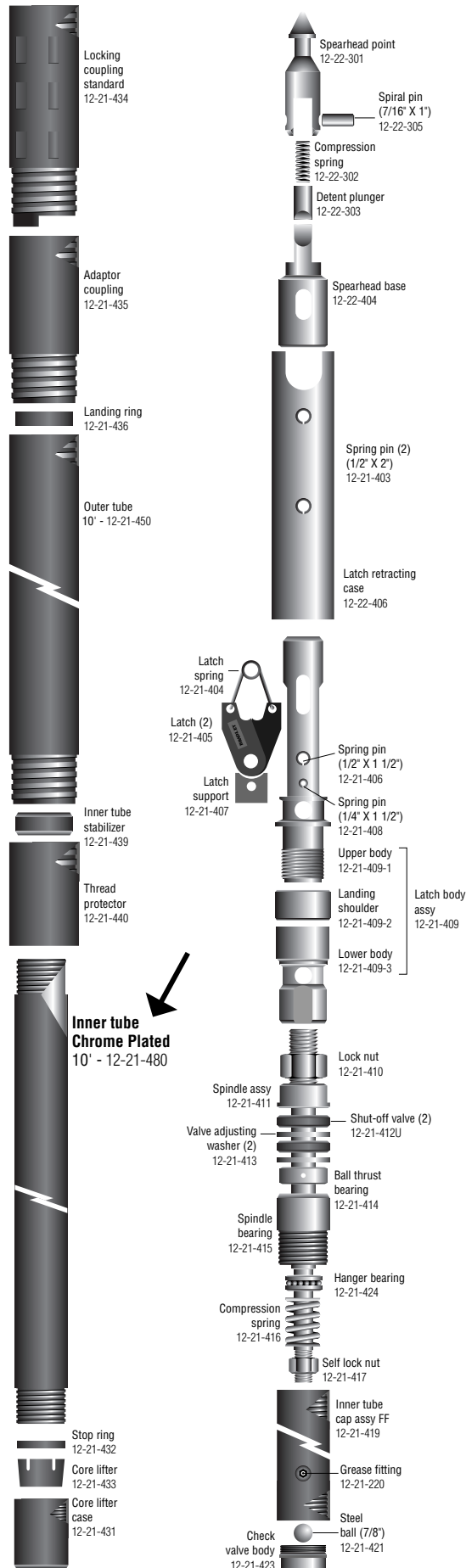
ASSEMBLIES

Group	Description	Part N°.	Weight	
			lb	kg
A	Core Barrel Assy FF	5'	19-00-405	64.95
		10'	19-00-410	99.95
				29.5
B	Inner Tube Assy FF	5'	19-10-405	28.38
		10'	19-10-410	36.38
				12.9
C	Head Assy FF	19-10-400	14.60	6.6

NT HEAD

NW rod box:	19-10-401
NWJ rod box:	19-10-402
NTW rod box:	19-10-403

N W/L WIRELINE CORE BARREL ASSEMBLY 10'



Description of Option	Code
Inner tube chrome plated	-1
Inner tube and outer tube chrome plated	-2
Outer tube chrome plated	-3
Inner tube and outer tube chrome plated, and locking coupling carbide	-4
H W/L locking coupling carbide	-5
Outer tube hexagon	-6
HWL locking coupling carbide	-7
Outer tube hexagon and locking coupling carbide	-8
HWL locking coupling standard	-9
Outer tube hexagon and N W/L locking coupling standard NTW rod box	-10
Locking coupling carbide	-11
Inner tube chrome plated, outer tube hexagon and locking coupling carbide	-12
HWL locking coupling standard, inner tube and outer tube chrome plated	-13
Inner tube chrome plated and locking coupling carbide	-16
N W/L locking coupling standard NTW rod box and inner tube chrome plated	-20
Inner tube chrome plated and locking coupling hexagon	-21
HWL locking coupling carbide and outer tube chrome plated	-22
N W/L-U core barrel to use with NTW rod	-24
Outer tube and locking coupling hexagon	-25
Outer tube, locking coupling and adapter coupling hexagon	-26
Locking coupling hexagon	-29
Inner tube chrome plated & P W/L locking coupling STD HWT box	-31
Inner tube chrome plated & outer tube hexagon	-32
HWT locking coupling STD	-33
Outer tube heat treated	-34

EXAMPLE:

12-02-410-1 (Code at end of part number)

N W/L Core Barrel Knuckle Head Assembly 10'
 - with inner tube chrome plated

Wireline **Core Barrels** and **Overshot** “Under Ground”

A W/L-U	B-2	B-3
B W/L-U	B-4	B-5
N W/L-U	B-6	B-7
H W/L-U	B-8	B-9

“Under Ground” Accessories: B-10 to B-13

Wireline **Core Barrels** and **Overshot** Thin Wall “Under Ground”

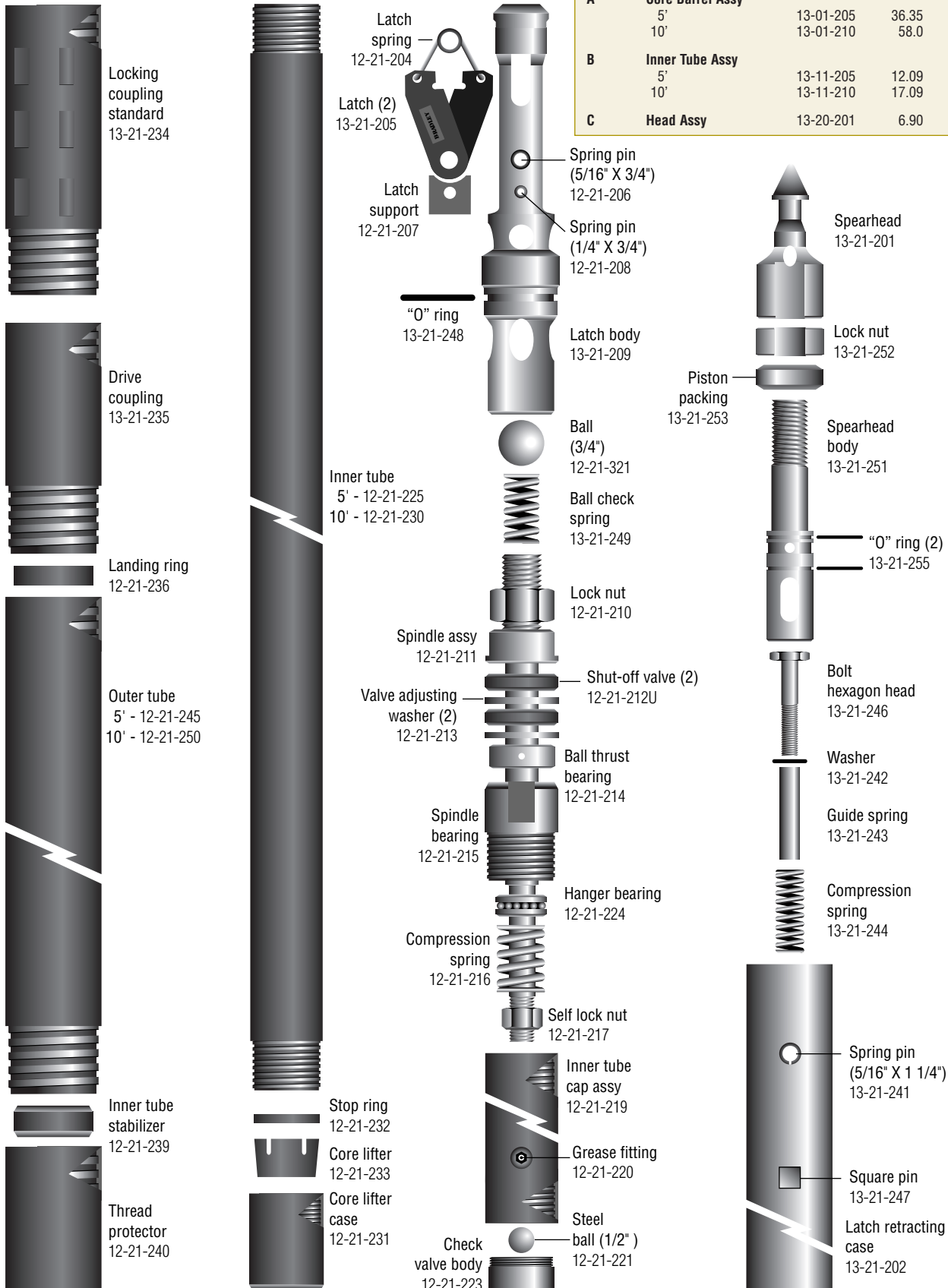
ATW-U	B-14	B-15
BTW-U	B-16	B-17
NTW-U	B-18	B-19
N W/L-U	B-20	B-21

Thin Wall “Under Ground” Accessories: B-22 to B-27

Core Barrel Assembly Options: B-28

ASSEMBLIES

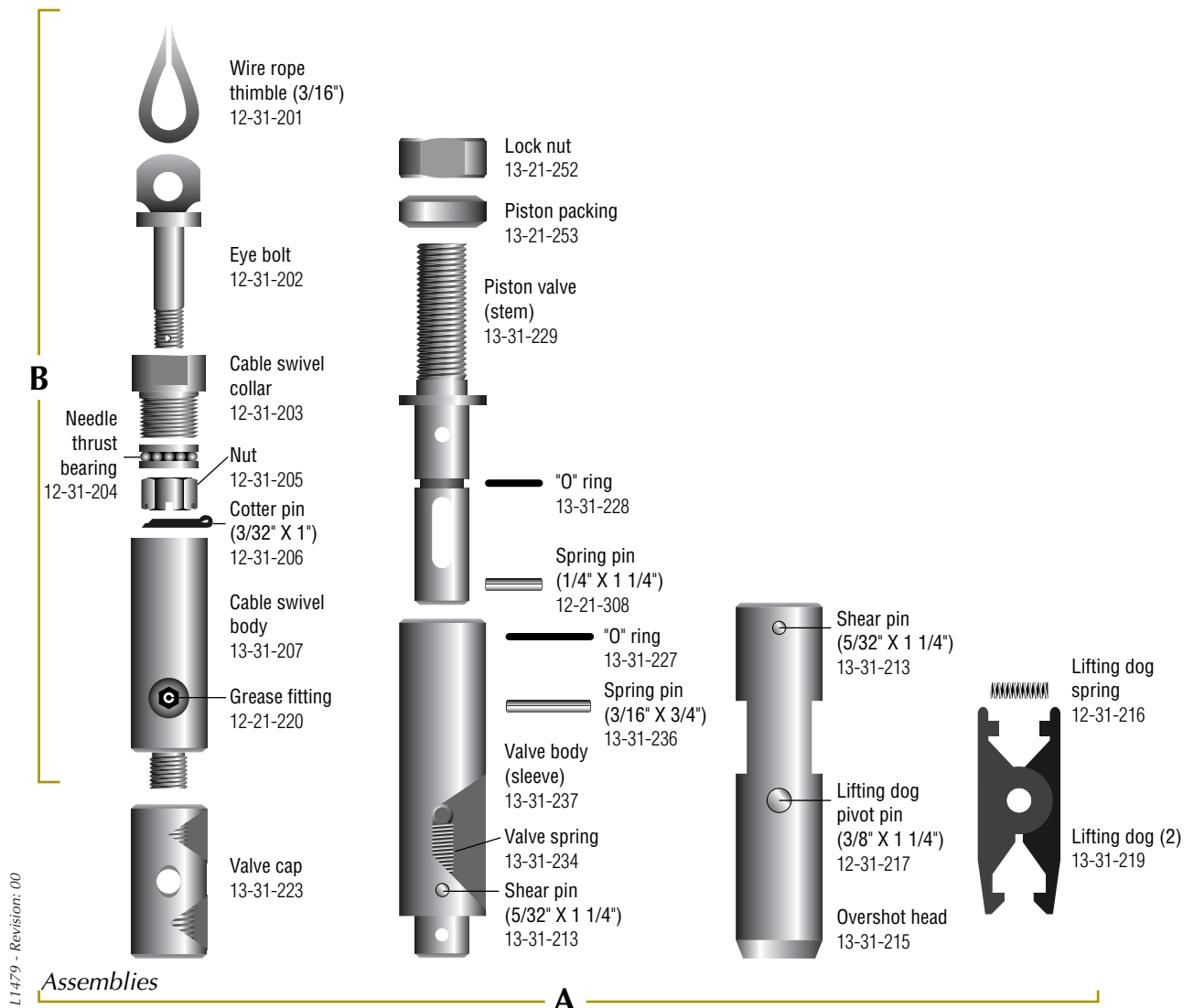
Group	Description	Part N°.	Weight lb	kg
A	Core Barrel Assy	5' 13-01-205	36.35	16.5
		10' 13-01-210	58.0	26.3
B	Inner Tube Assy	5' 13-11-205	12.09	5.5
		10' 13-11-210	17.09	7.7
C	Head Assy	13-20-201	6.90	3.1



Assemblies

ASSEMBLIES

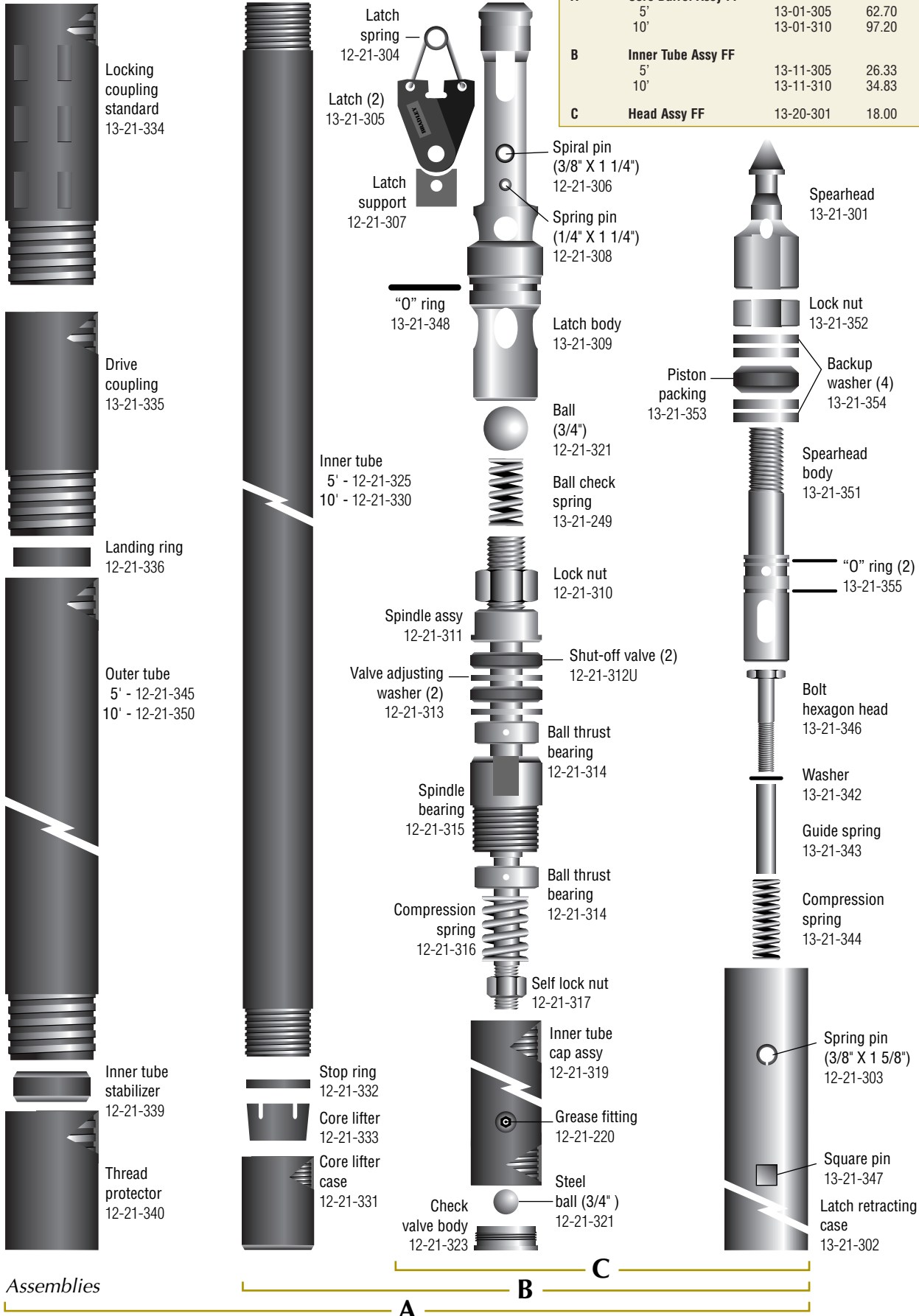
Group	Description	Part N ^o .	Weight	
			lb	kg
A	Overshot Assy	13-30-200	4.30	2.0
B	Cable Swivel Assy	13-30-250	1.00	0.5



L1479 - Revision: 00

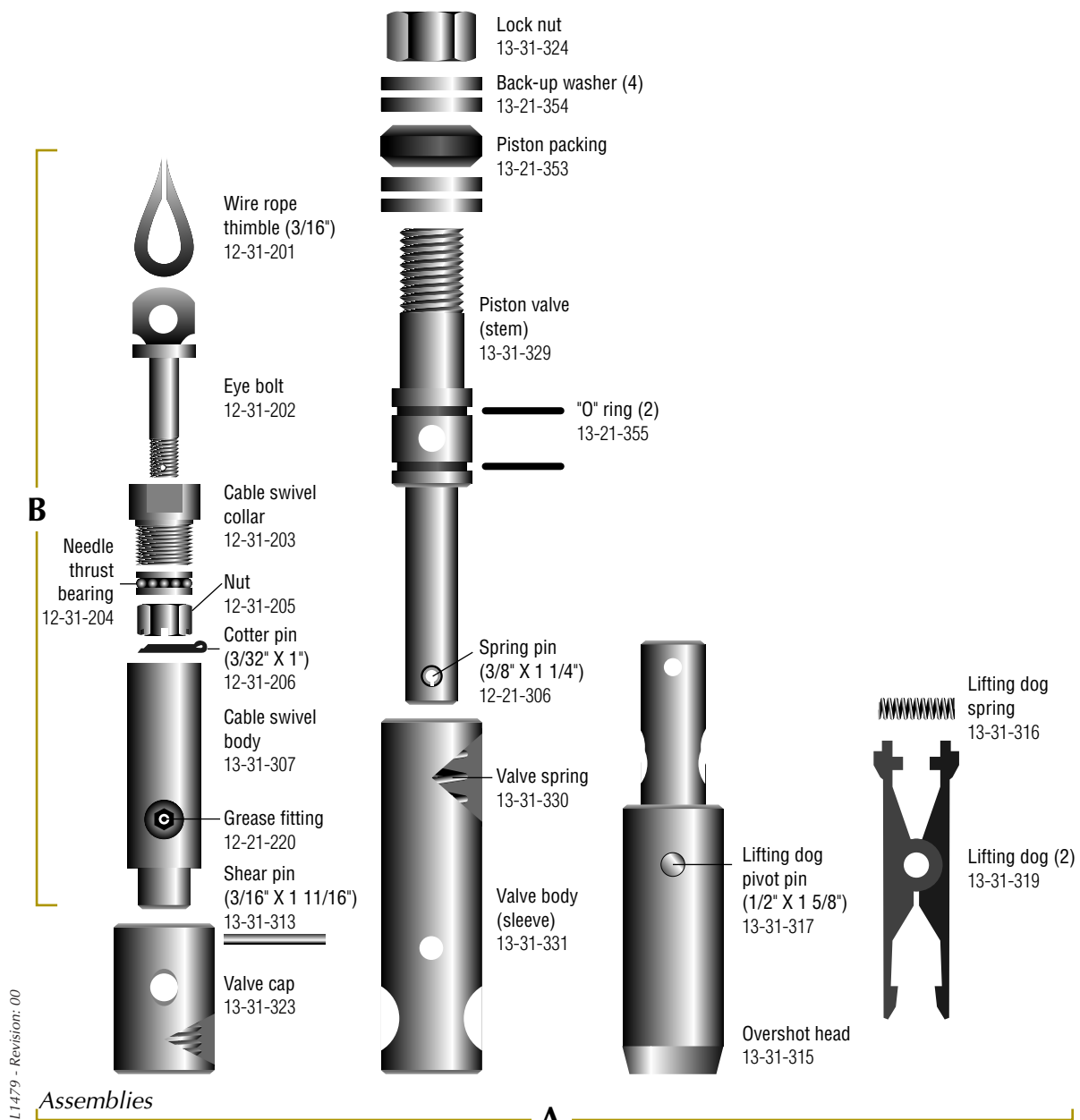
ASSEMBLIES

Group	Description	Part N°.	Weight lb	kg
A	Core Barrel Assy FF	5' 13-01-305	62.70	28.5
		10' 13-01-310	97.20	43.2
B	Inner Tube Assy FF	5' 13-11-305	26.33	11.9
		10' 13-11-310	34.83	15.8
C	Head Assy FF	13-20-301	18.00	8.2

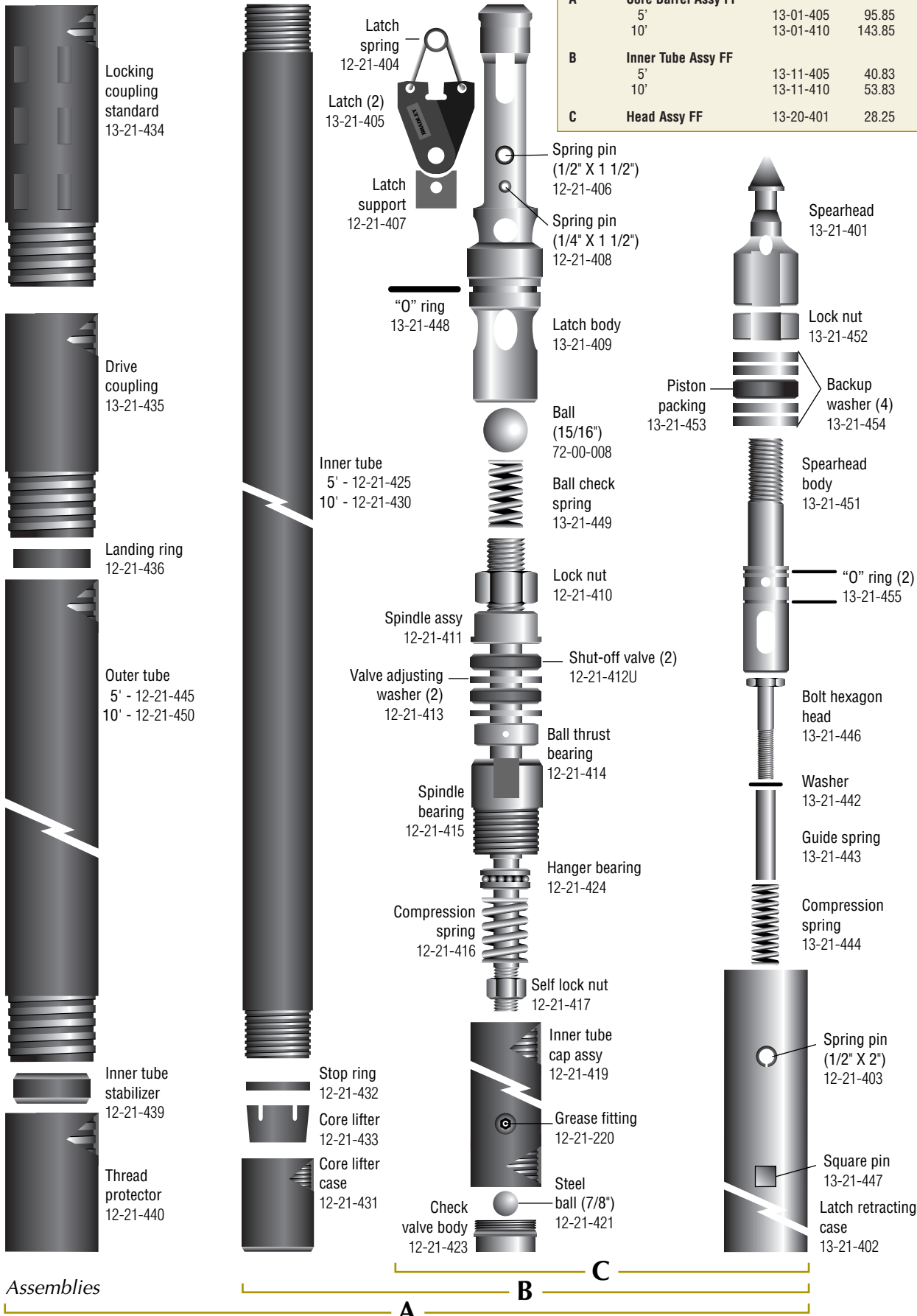


ASSEMBLIES

Group	Description	Part N ^o .	Weight	
			lb	kg
A	Overshot Assy	13-30-300	8.00	3.6
B	Cable Swivel Assy	13-30-350	1.14	0.5

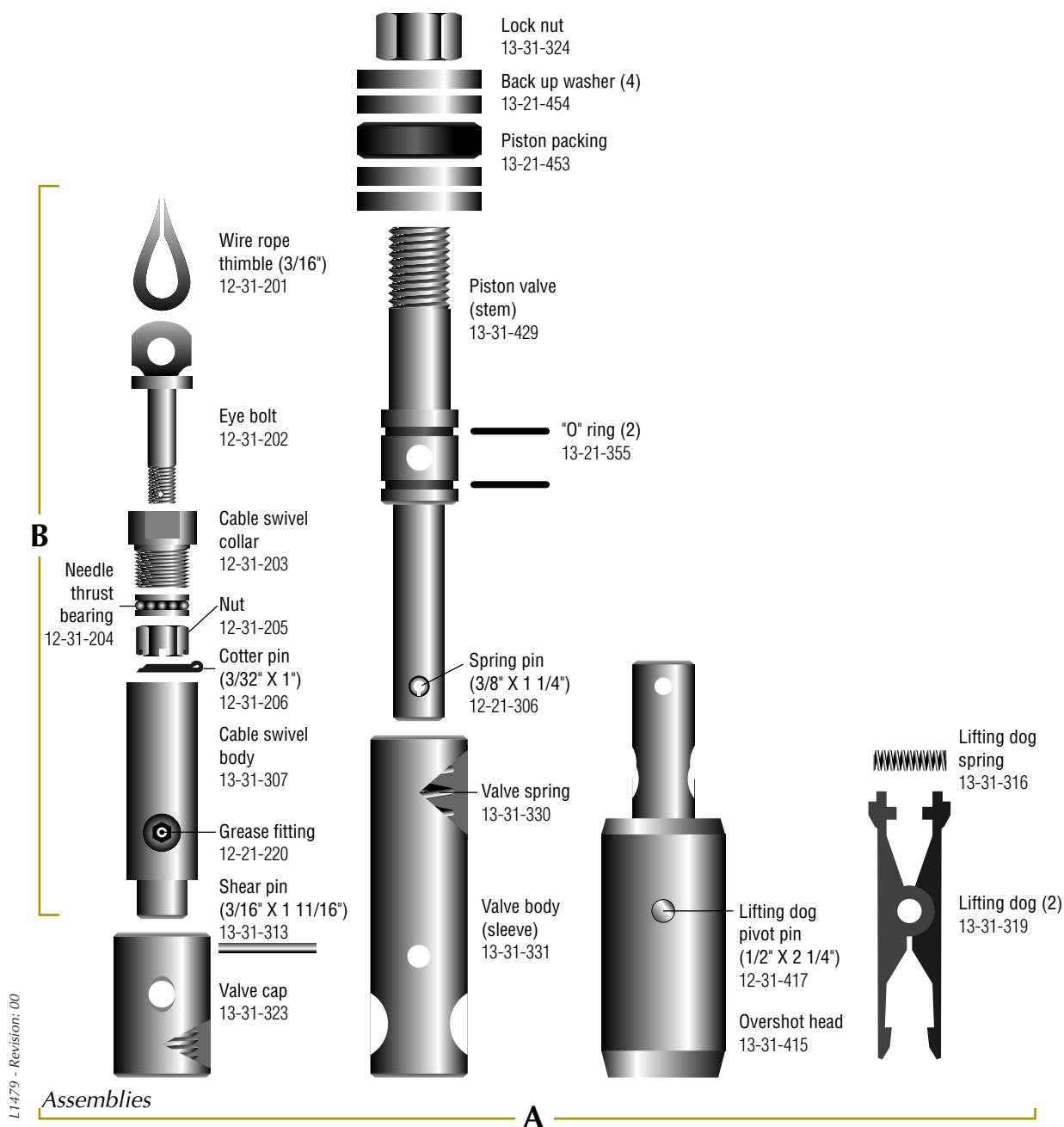


L1479 - Revision: 00



ASSEMBLIES

Group	Description	Part N ^o .	Weight	
			lb	kg
A	Overshot Assy	13-30-400	9.60	4.4
B	Cable Swivel Assy	13-30-350	1.14	0.5

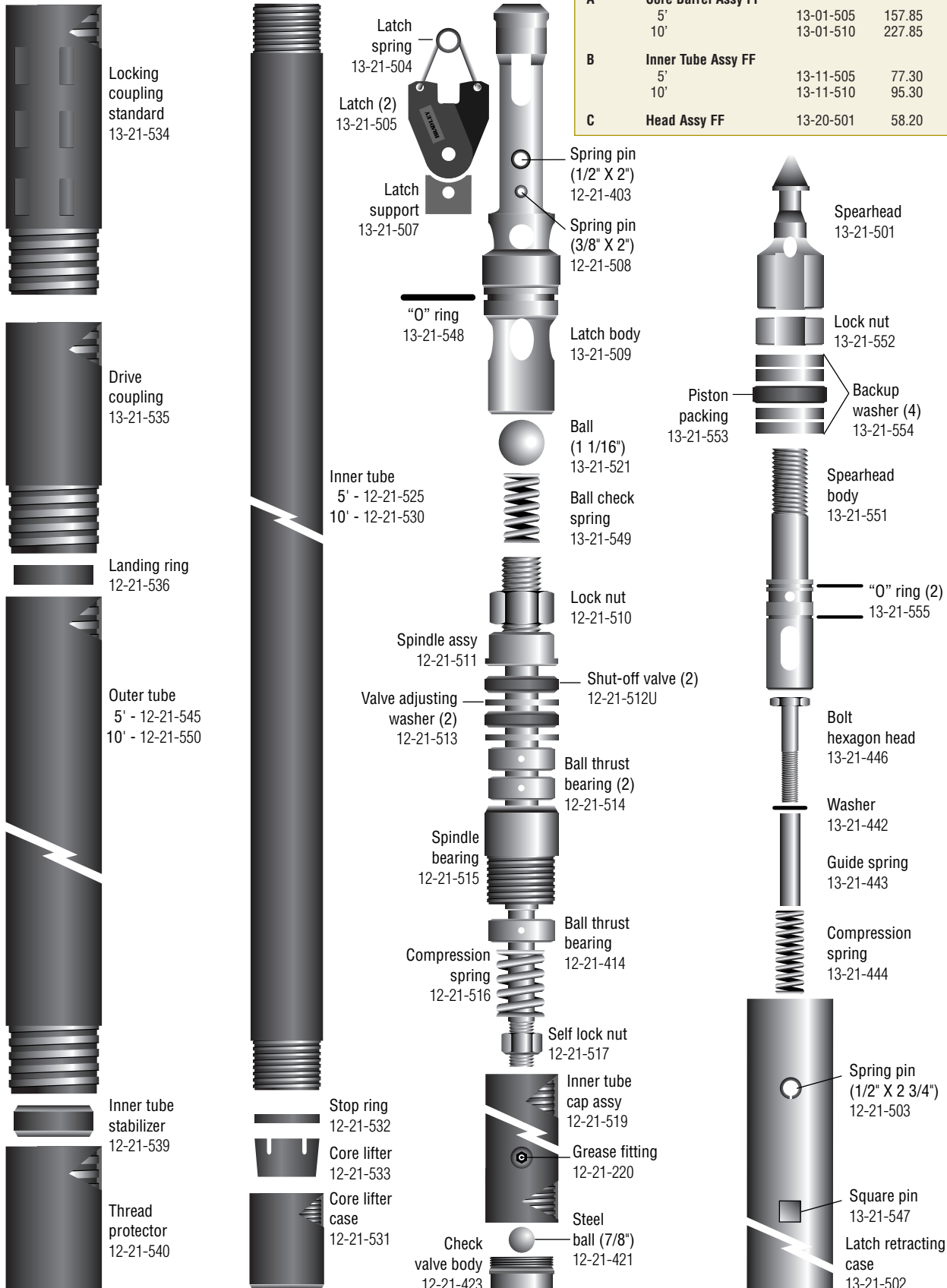


L1479 - Revision: 00

Assemblies

ASSEMBLIES

Group	Description	Part N°.	Weight lb	kg
A	Core Barrel Assy FF	5' 13-01-505	157.85	71.7
		10' 13-01-510	227.85	103.5
B	Inner Tube Assy FF	5' 13-11-505	77.30	35.1
		10' 13-11-510	95.30	43.3
C	Head Assy FF	13-20-501	58.20	26.4



Assemblies

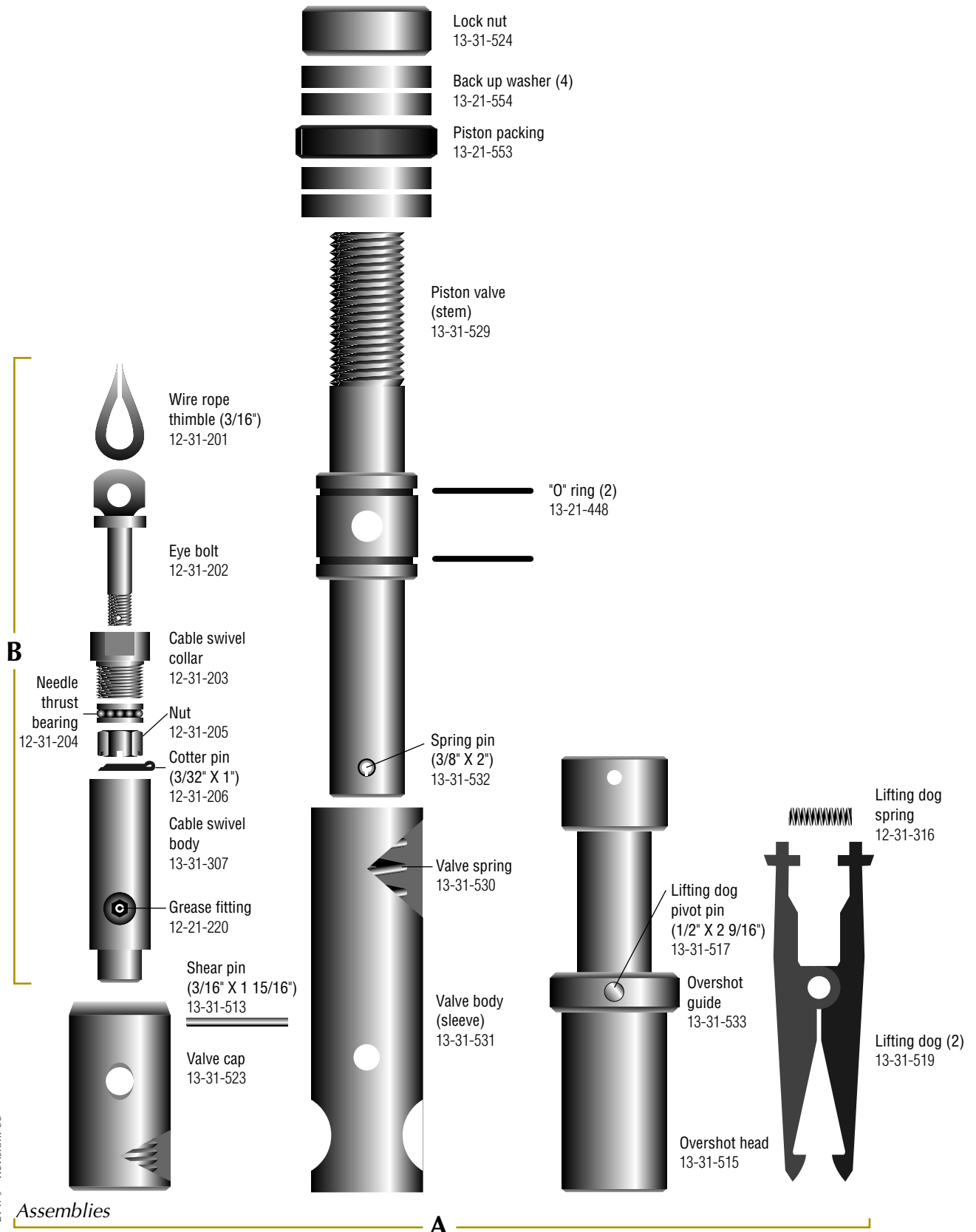
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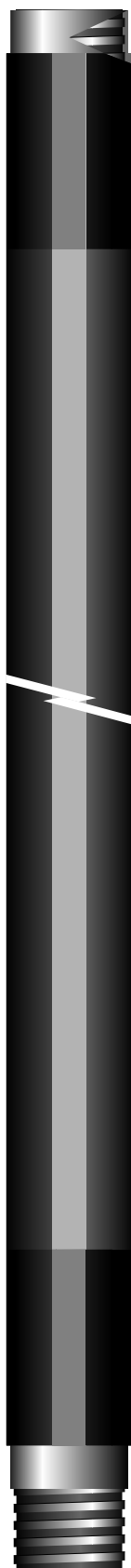
B

C

ASSEMBLIES

Group	Description	Part N ^o .	Weight	
			lb	kg
A	Overshot Assy	13-30-500	13.50	6.1
B	Cable Swivel Assy	13-30-350	1.14	0.5





FULL HOLE OUTER TUBE

5':
 A W/L: 12-21-294
 B W/L: 12-21-394
 N W/L: 12-21-494
 H W/L: 12-21-594

10':
 A W/L: 12-21-295
 B W/L: 12-21-395
 N W/L: 12-21-495
 H W/L: 12-21-595



HEAT TREATED OUTER TUBE

5':
 A W/L: 12-21-245HT
 B W/L: 12-21-345HT
 N W/L: 12-21-445HT
 H W/L: 12-21-545HT
 HW W/L: 12-21-645-1HT
 P W/L: 12-21-645HT

10':
 A W/L: 12-21-250HT
 B W/L: 12-21-350HT
 N W/L: 12-21-450HT
 H W/L: 12-21-550HT
 HW W/L: 12-21-650-1HT
 P W/L: 12-21-650HT



CHROME PLATED OUTER TUBE

5':
 A W/L: 12-21-285
 B W/L: 12-21-385
 N W/L: 12-21-485
 H W/L: 12-21-585
 HW W/L: 12-21-685-1
 P W/L: 12-21-685

10':
 A W/L: 12-21-290
 B W/L: 12-21-390
 N W/L: 12-21-490
 H W/L: 12-21-590
 HW W/L: 12-21-690-1
 P W/L: 12-21-690



CHROME PLATED INNER TUBE

5':	
A W/L:	12-21-275
B W/L:	12-21-375
N W/L:	12-21-475
H W/L:	12-21-575
HW W/L:	12-21-675
P W/L:	12-21-675

10':	
A W/L:	12-21-280
B W/L:	12-21-380
N W/L:	12-21-480
H W/L:	12-21-580
HW W/L:	12-21-680
P W/L:	12-21-680



CHROME PLATED INNER TUBE 6' EXTENSION

A W/L:	12-21-276
B W/L:	12-21-376
N W/L:	12-21-476
H W/L:	12-21-576
HW W/L:	12-21-676
P W/L:	12-21-676

INNER TUBE 6' EXTENSION

A W/L:	12-21-226
B W/L:	12-21-326
N W/L:	12-21-426
H W/L:	12-21-526
HW W/L:	12-21-626
P W/L:	12-21-626



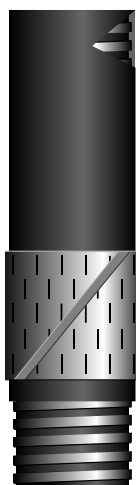
INNER TUBE COUPLING

A W/L:	12-21-291
B W/L:	12-21-391
N W/L:	12-21-491
H W/L:	12-21-591
HW W/L:	12-21-691
P W/L:	12-21-691



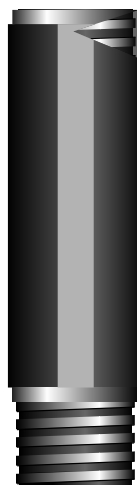
INNER TUBE EXTENSION (Straight Hole Reaming Shell)

A W/L:	12-21-292 (3 5/8")
B W/L:	12-21-392 (3 3/4")
N W/L:	12-21-492 (3 1/4")
H W/L:	12-21-592 (4 13/16")
HW W/L:	12-21-692 (5")
P W/L:	12-21-692 (5")



CARBIDE LOCKING COUPLING

2.5" Carbide:	
A W/L-U:	13-21-282
B W/L-U:	13-21-382
N W/L-U:	13-21-482
H W/L-U:	13-21-582



FULL HOLE LOCKING COUPLING

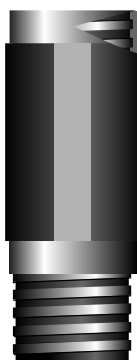
A W/L-U:	13-21-234H
B W/L-U:	13-21-334H
N W/L-U:	13-21-434H
H W/L-U:	13-21-534H

DRIVE COUPLING OPTIONS



HEAT TREATED DRIVE COUPLING

A W/L-U:	13-21-235HT
B W/L-U:	13-21-335HT
N W/L-U:	13-21-435HT
H W/L-U:	13-21-535HT

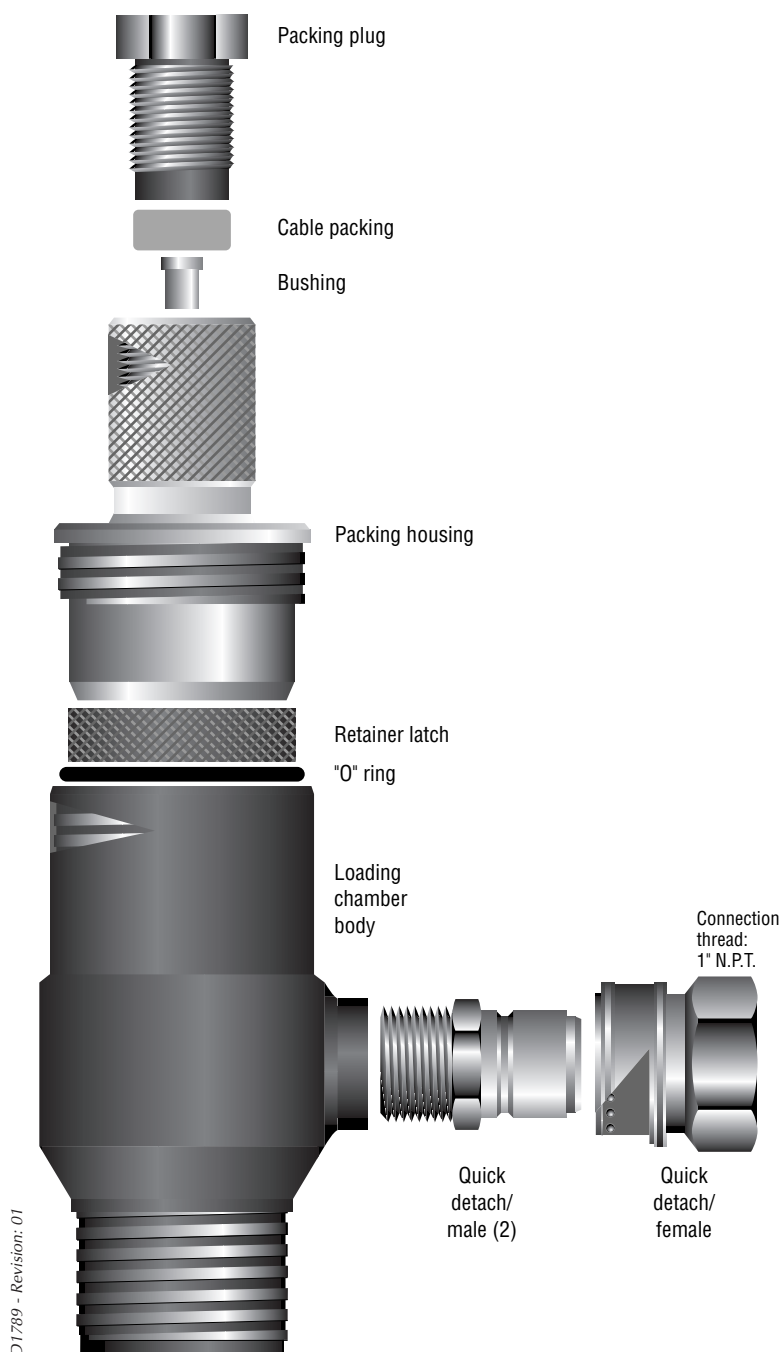


FULL HOLE DRIVE COUPLING

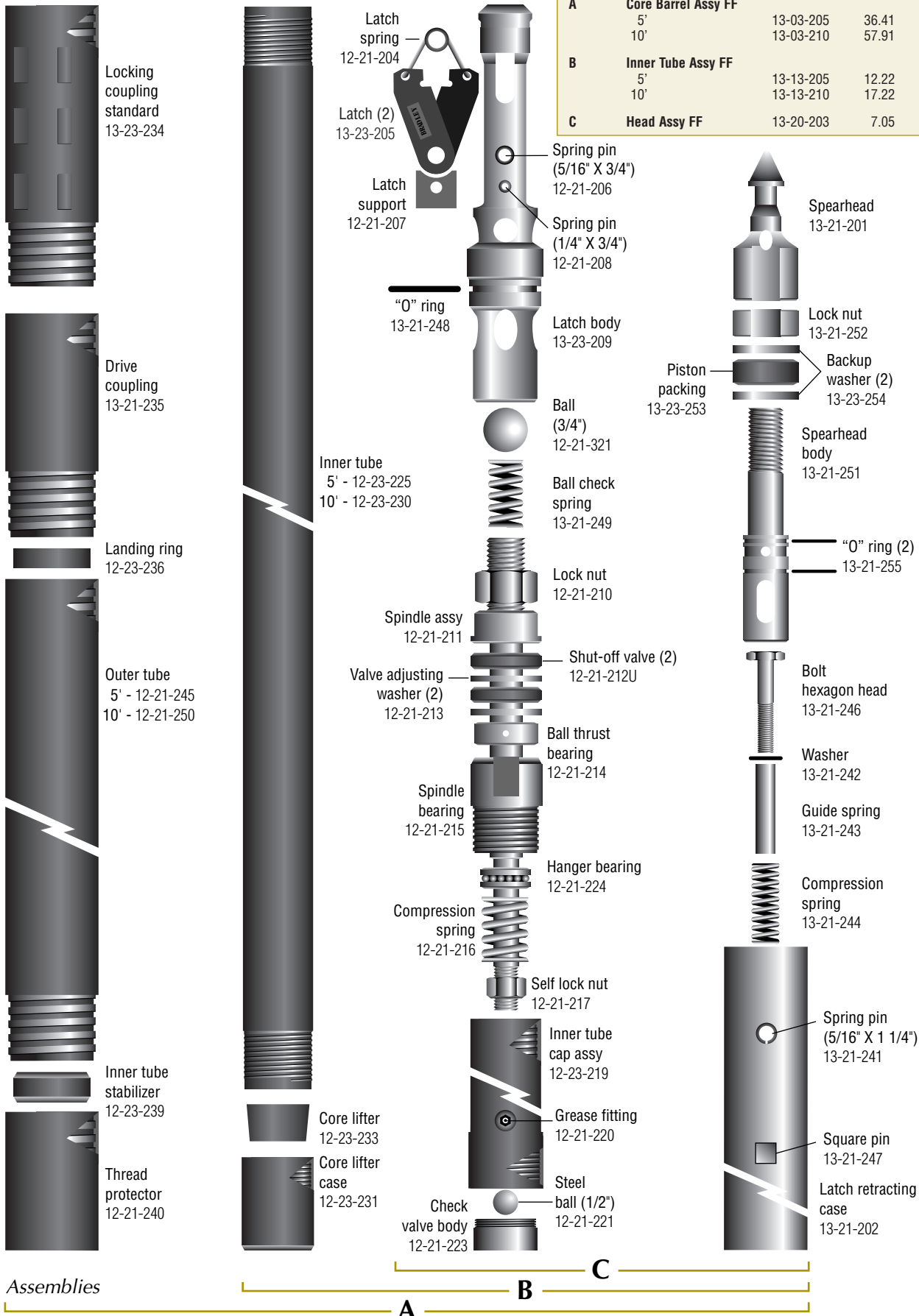
A W/L-U:	13-21-235H
B W/L-U:	13-21-335H
N W/L-U:	13-21-435H
H W/L-U:	13-21-535H

ASSEMBLIES

Description	Part N ^o .	Weight	
		lb	kg
Loading Chamber Assy			
A W/L-U (3/16")	13-40-200	7.00	3.2
A W/L-U (1/4")	13-40-220	7.00	3.2
B W/L-U (3/16")	13-40-300	8.58	3.9
B W/L-U (1/4")	13-40-320	8.58	3.9
N W/L-U (3/16")	13-40-400	10.90	5.0
N W/L-U (1/4")	13-40-420	10.90	5.0
H W/L-U (3/16")	13-40-500	12.70	5.8
H W/L-U (1/4")	13-40-520	12.70	5.8



"O" ring:	A W/L-U:	14-21-426
	B W/L-U:	13-40-302
	N W/L-U:	13-40-402
	H W/L-U:	13-40-502
Retainer latch:	A W/L-U:	13-40-203
	B W/L-U:	13-40-303
	N W/L-U:	13-40-403
	H W/L-U:	13-40-503
Loading chamber body:	A W/L-U:	13-40-204
	B W/L-U:	13-40-304
	N W/L-U:	13-40-404
	H W/L-U:	13-40-504
Quick detach/male (2):	All sizes:	13-40-206
Quick detach/female:	All sizes:	13-40-207
Packing housing:	A W/L-U:	13-40-208
	B W/L-U:	13-40-308
	N W/L-U:	13-40-408
	H W/L-U:	13-40-508
Bushing (3/16"):	All sizes:	13-40-209
Bushing (1/4"):	All sizes:	13-40-221
Cable packing (3/16"):	All sizes:	13-40-210
Cable packing (1/4"):	All sizes:	13-40-222
Packing plug (3/16"):	All sizes:	13-40-211
Packing plug (1/4"):	All sizes:	13-40-223
Quick detach "O" ring:	All sizes:	13-40-214

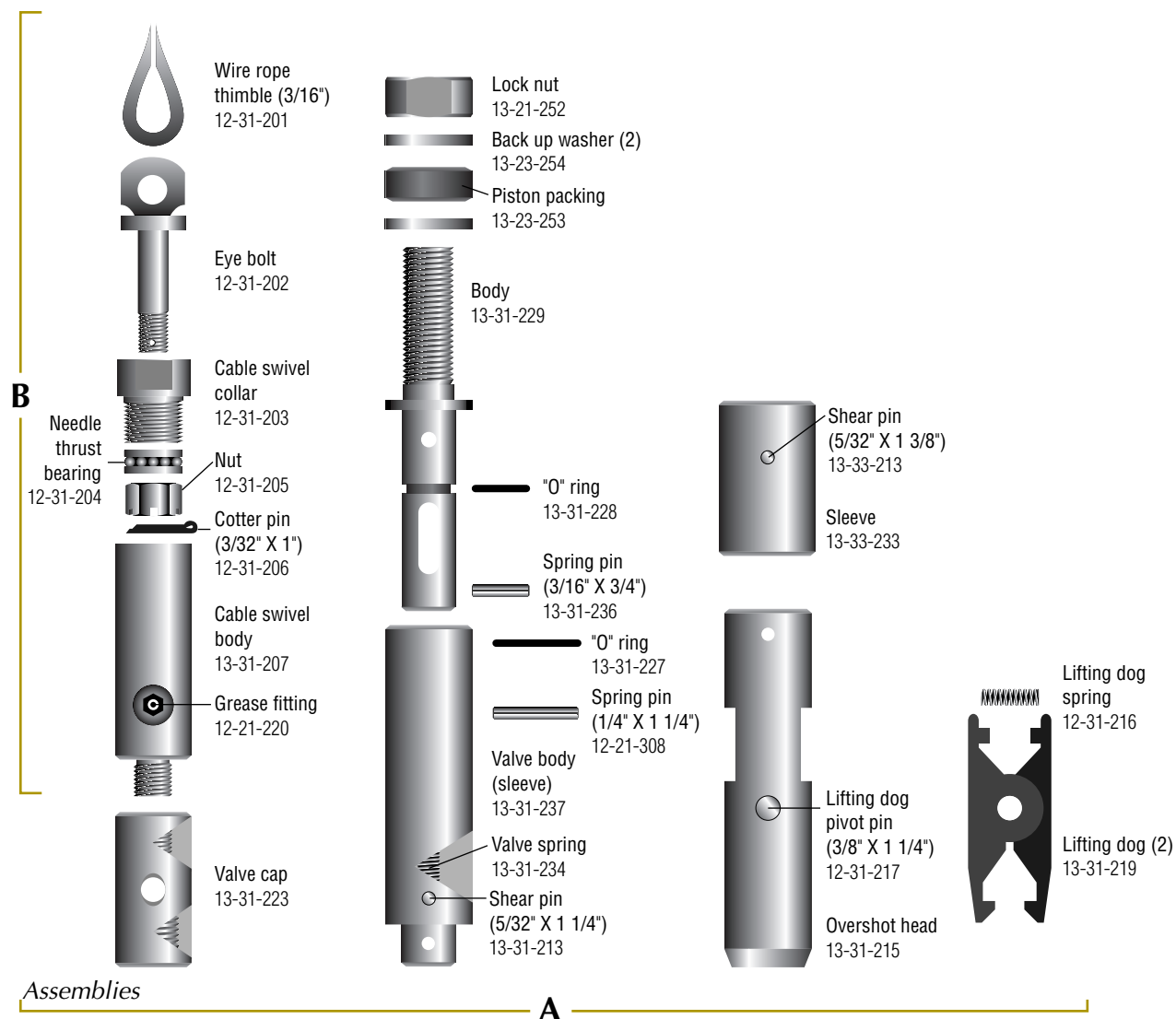


ASSEMBLIES

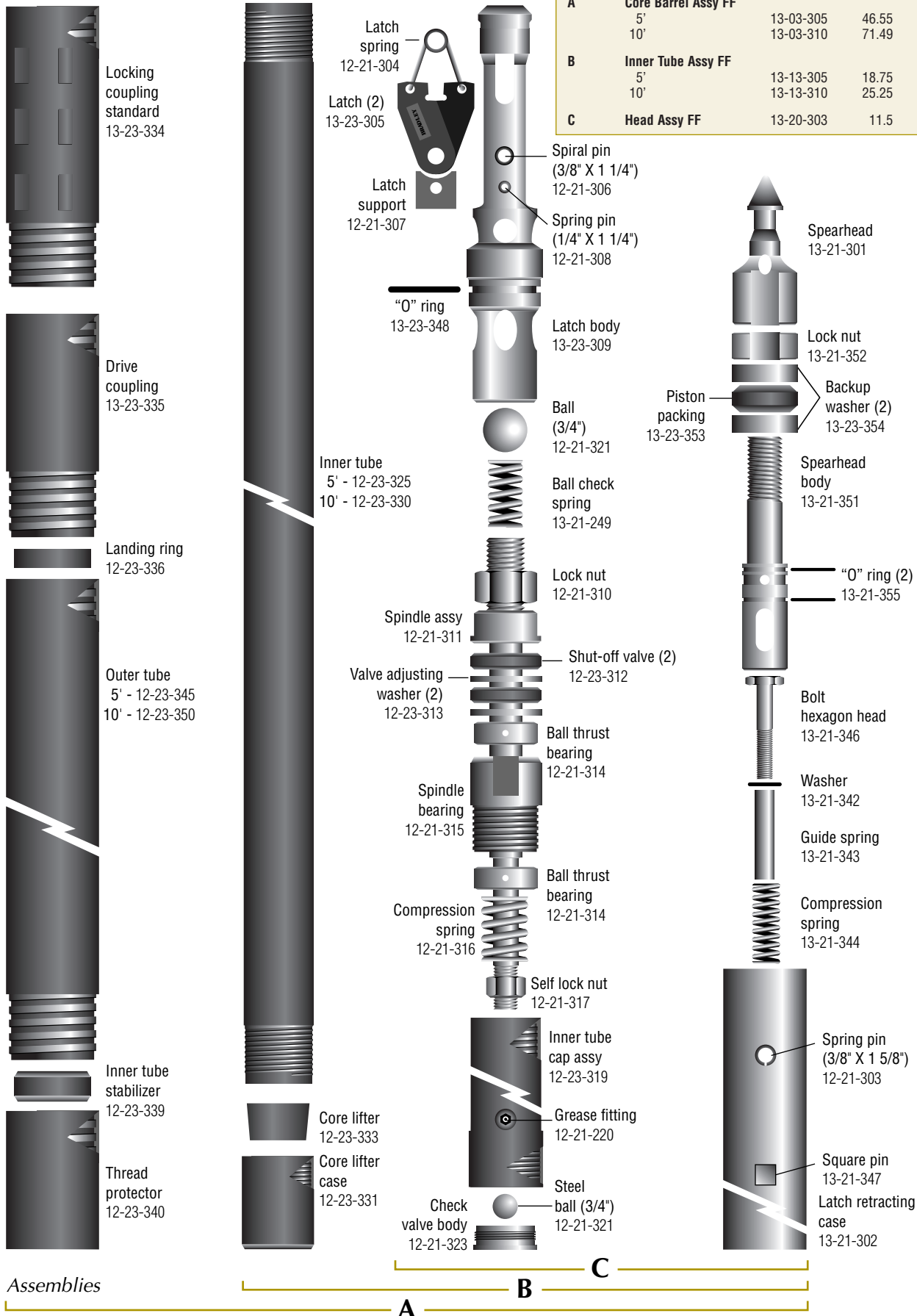
Group	Description	Part N°.	Weight lb	kg
A	Core Barrel Assy FF	5' 13-03-205	36.41	16.5
		10' 13-03-210	57.91	26.3
B	Inner Tube Assy FF	5' 13-13-205	12.22	5.5
		10' 13-13-210	17.22	7.8
C	Head Assy FF	13-20-203	7.05	3.2

ASSEMBLIES

Group	Description	Part N ^o .	Weight	
			lb	kg
A	Overshot Assy	13-30-204	4.35	2.0
B	Cable Swivel Assy	13-30-250	1.08	0.5

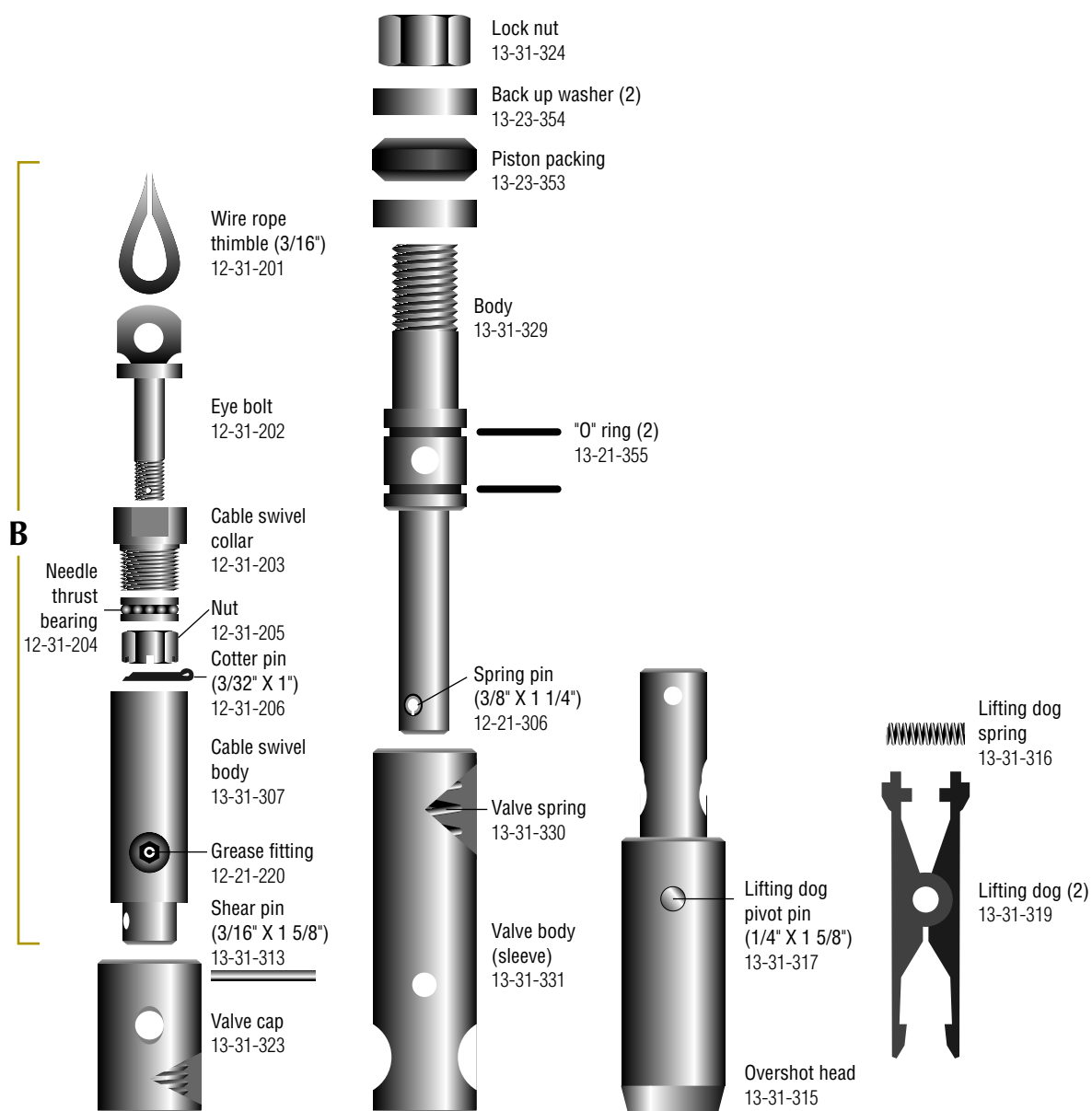


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ASSEMBLIES

Group	Description	Part N ^o .	Weight	
			lb	kg
A	Overshot Assy	13-30-304	8.00	3.6
B	Cable Swivel Assy	13-30-350	1.14	0.5



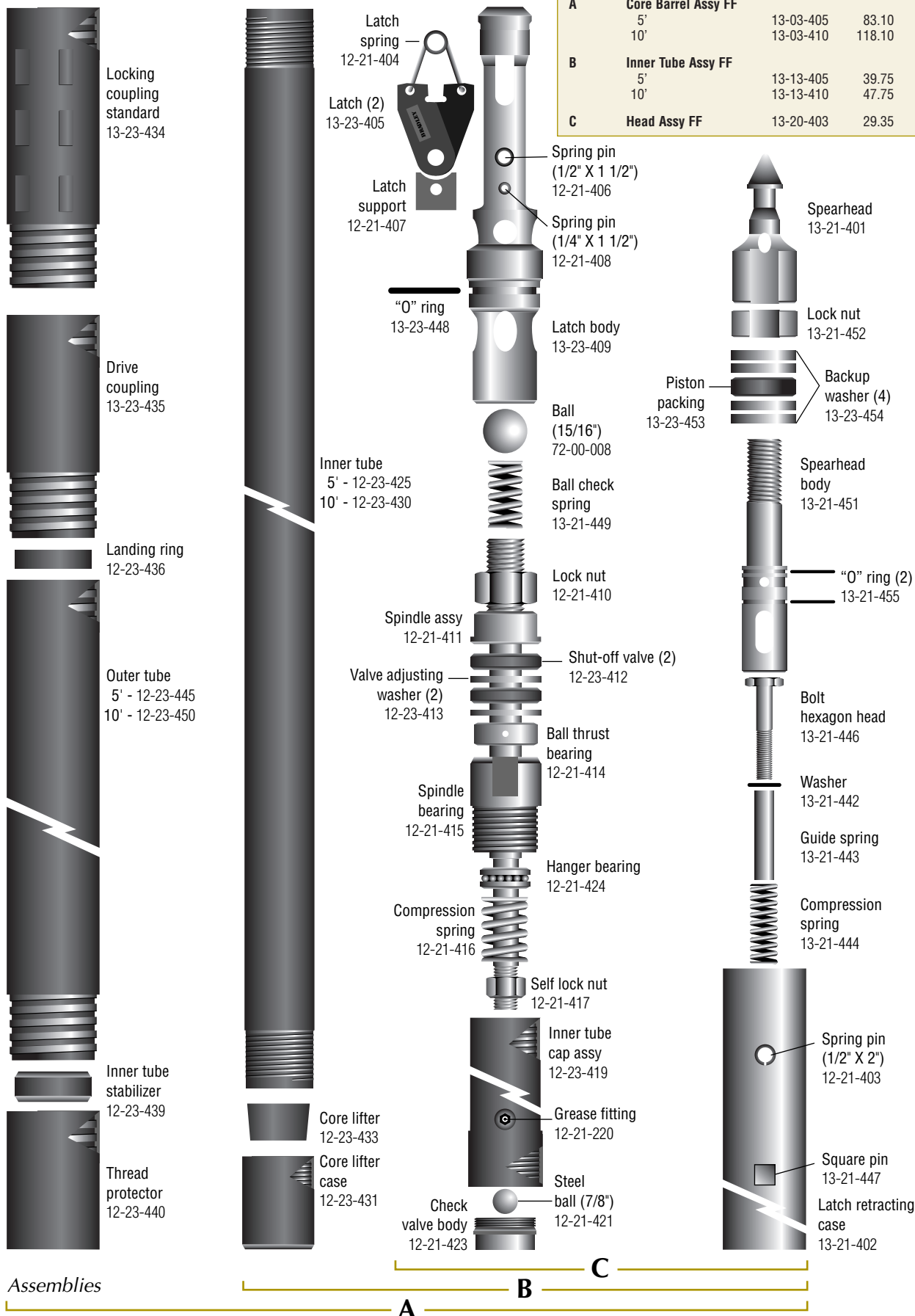
L1479 - Revision: 00

Assemblies

A

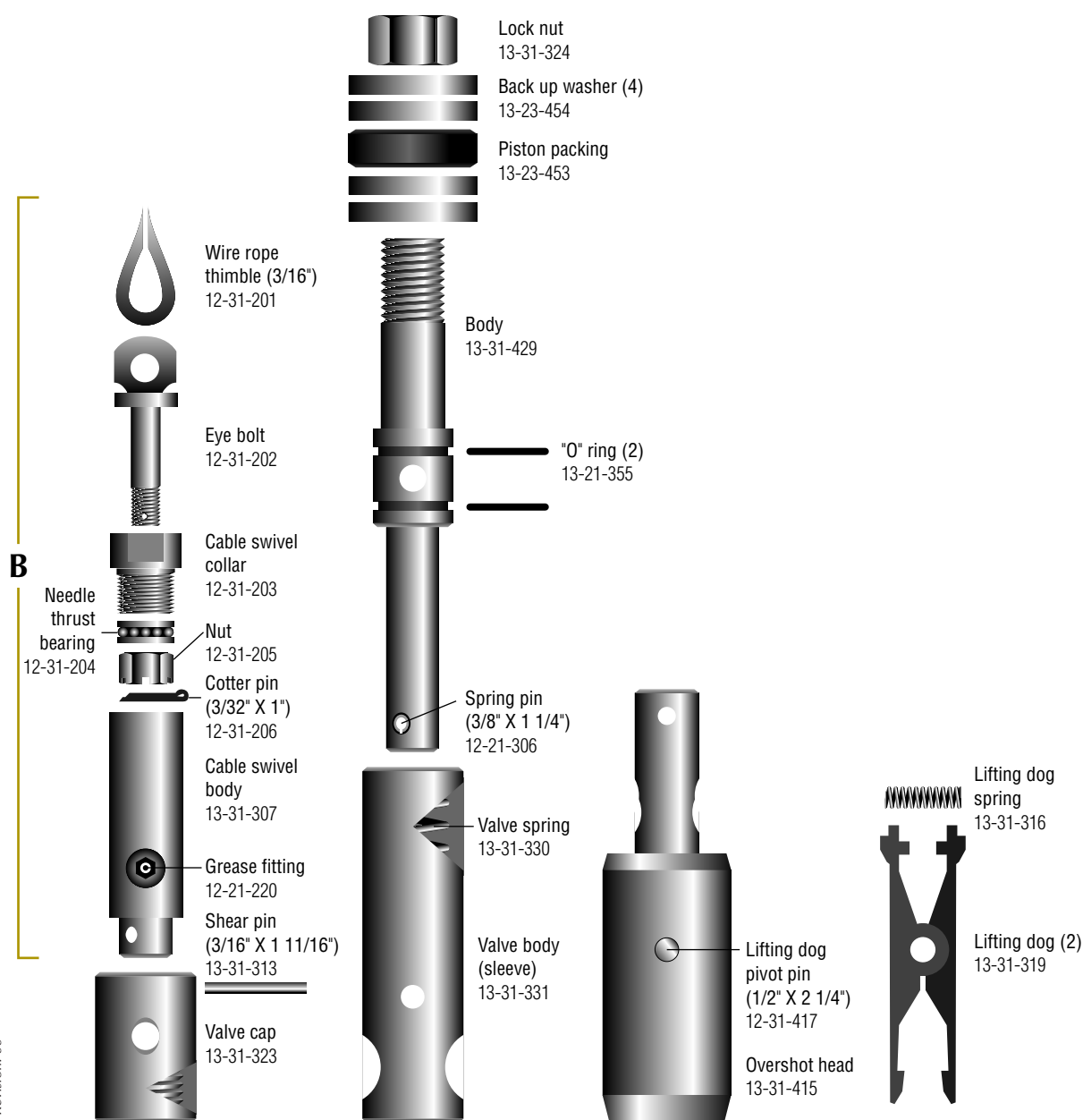
ASSEMBLIES

Group	Description	Part N°.	Weight lb	kg
A	Core Barrel Assy FF	5' 13-03-405	83.10	37.8
		10' 13-03-410	118.10	53.7
B	Inner Tube Assy FF	5' 13-13-405	39.75	18.1
		10' 13-13-410	47.75	21.7
C	Head Assy FF	13-20-403	29.35	13.3



ASSEMBLIES

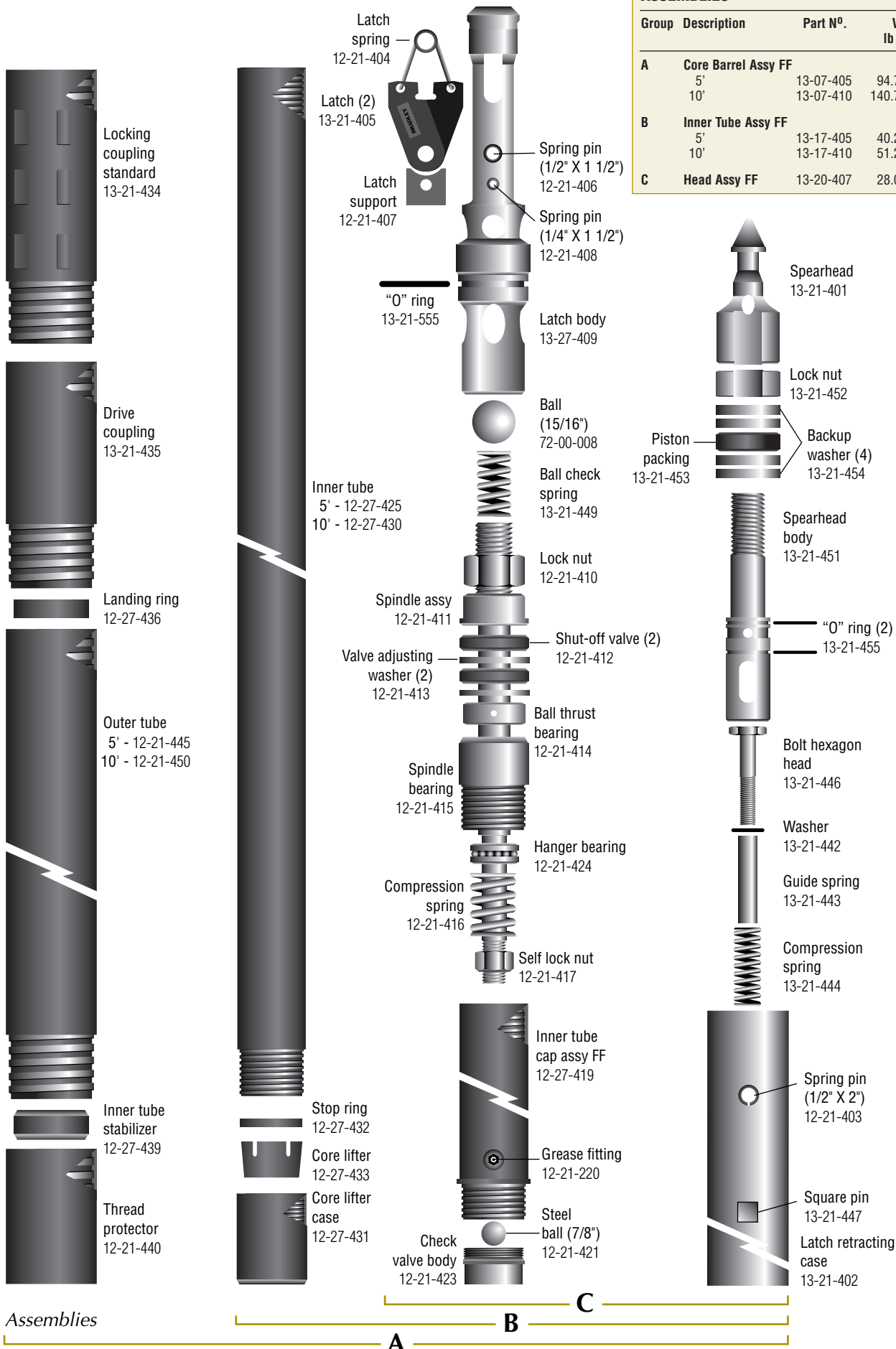
Group	Description	Part N ^o .	Weight	
			lb	kg
A	Overshot Assy	13-30-404	10.00	4.5
B	Cable Swivel Assy	13-30-350	1.14	0.5



L1479 - Revision: 00

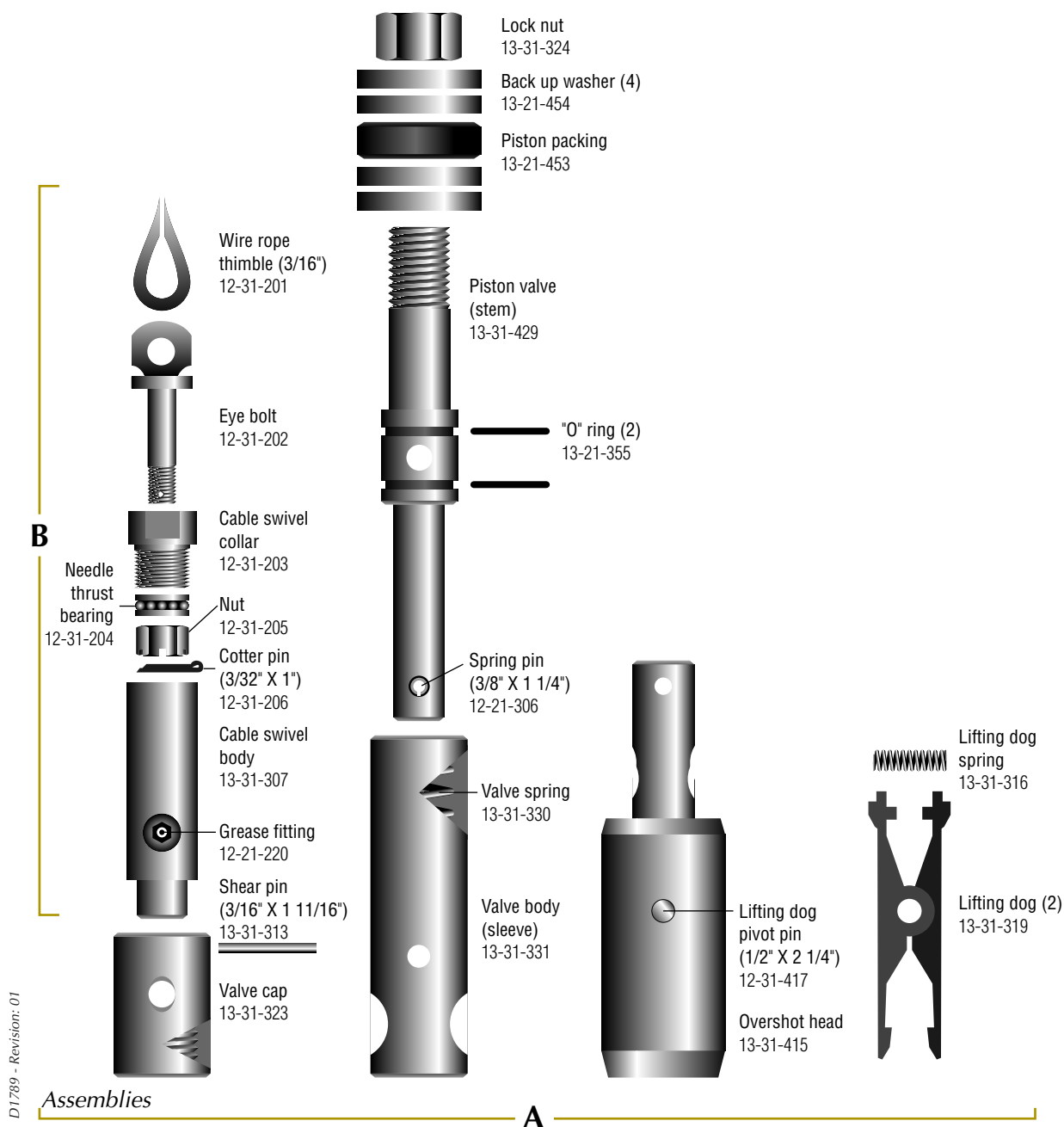
Assemblies

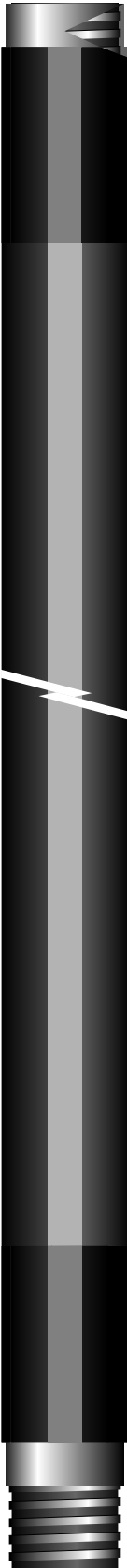
A



ASSEMBLIES

Group	Description	Part N ^o .	Weight	
			lb	kg
A	Overshot Assy	13-30-400	9.60	4.4
B	Cable Swivel Assy	13-30-350	1.14	0.5





**FULL HOLE
OUTER TUBE**

5':	
ATW:	12-21-294
BTW:	12-23-394
NTW:	12-23-494
10':	
ATW:	12-21-295
BTW:	12-23-395
NTW:	12-23-495



**HEAT TREATED
OUTER TUBE**

5':	
ATW:	12-21-245HT
BTW:	12-23-345HT
NTW:	12-23-445HT
10':	
ATW:	12-21-250HT
BTW:	12-23-350HT
NTW:	12-23-450HT



**CHROME PLATED
OUTER TUBE**

5':	
ATW:	12-21-285
BTW:	12-23-385
NTW:	12-23-485
10':	
ATW:	12-21-290
BTW:	12-23-390
NTW:	12-23-490



CHROME PLATED INNER TUBE

5':
 ATW: 12-23-275
 BTW: 12-23-375
 NTW: 12-23-475
 N W/L 2: 12-27-475

10':
 ATW: 12-23-280
 BTW: 12-23-380
 NTW: 12-23-480
 N W/L 2: 12-27-480



INNER TUBE COUPLING

ATW: 12-23-291
 BTW: 12-23-391
 NTW: 12-23-491



INNER TUBE EXTENSION (Straight Hole Reaming Shell)

ATW: 12-23-292
 (3 5/8")
 BTW: 12-23-392
 (5 3/4")
 NTW: 12-23-492
 (5 3/4")



INNER TUBE EXTENSION

N W/L 2: 12-27-481



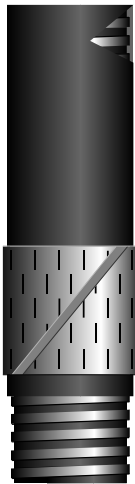
CHROME PLATED INNER TUBE 6' EXTENSION

ATW: 12-23-276
 BTW: 12-23-376
 NTW: 12-23-476



INNER TUBE 6' EXTENSION

ATW: 12-23-226
 BTW: 12-23-326
 NTW: 12-23-426



**THIN WALL CARBIDE
LOCKING COUPLING**

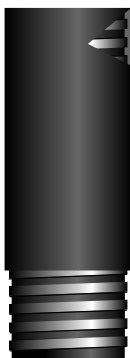
2.5" Carbide:
ATW-U: 13-23-282
BTW-U: 13-23-382
NTW-U: 13-23-482



**THIN WALL FULL HOLE
LOCKING COUPLING**

ATW-U: 13-23-234H
BTW-U: 13-23-334H
NTW-U: 13-23-434H

THIN WALL DRIVE COUPLING OPTIONS



**THIN WALL HEAT TREATED
DRIVE COUPLING**

ATW-U: 13-21-235HT
BTW-U: 13-23-335HT
NTW-U: 13-23-435HT



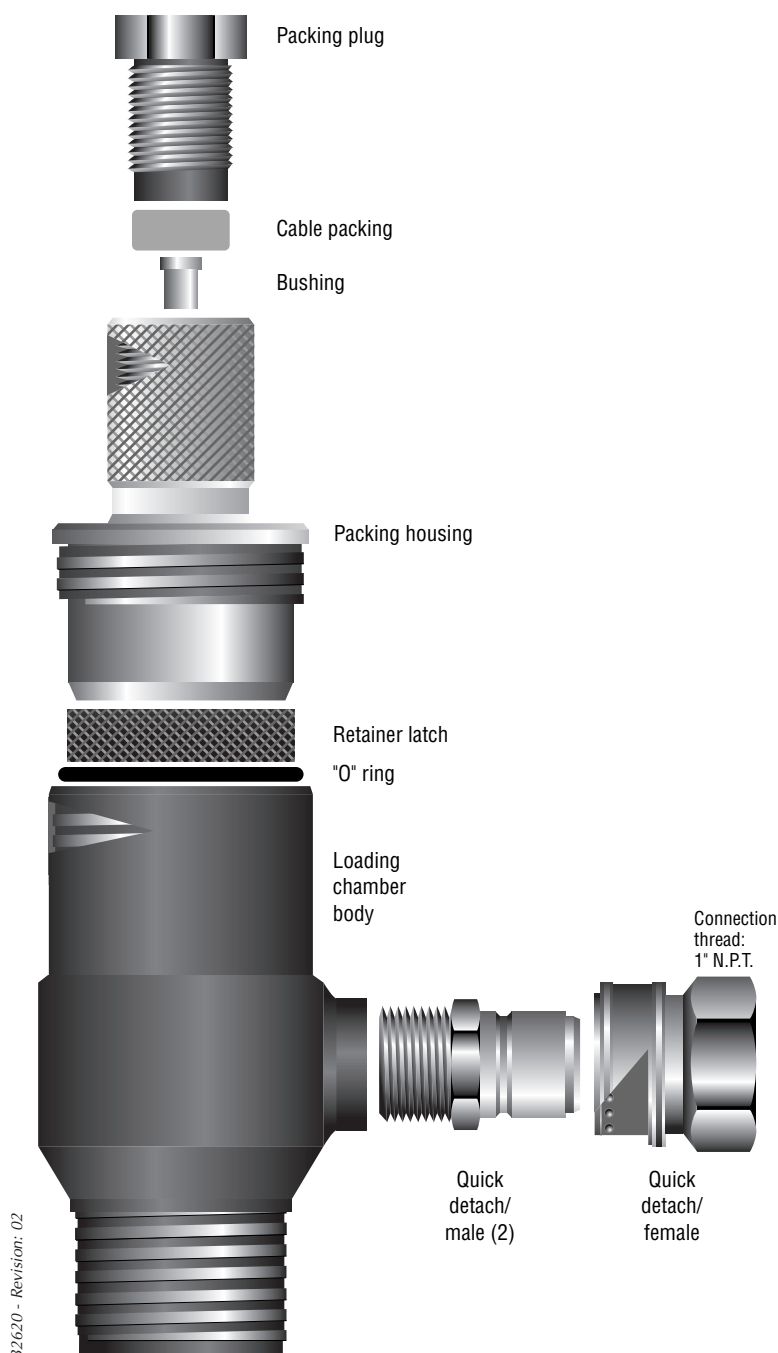
**THIN WALL FULL HOLE
DRIVE COUPLING**

ATW-U: 13-21-235H
BTW-U: 13-23-335H
NTW-U: 13-23-435H

ASSEMBLIES

Description	Part N ^o .	Weight	
		lb	kg
Loading Chamber Assy			
ATW-U (3/16")	13-43-200	7.10	3.2
ATW-U (1/4")	13-43-220	7.10	3.2
BTW-U (3/16")	13-43-300	8.14	3.7
BTW-U (1/4")	13-43-320	8.14	3.7
NTW-U (3/16")	13-43-400	8.75	4.0
NTW-U (1/4")	13-43-420	8.75	4.0

NOTE: The N W/L 2-U uses the same Loading Chamber Assembly as N W/L-U, please refer to page B-13 for part number.



B2620 - Revision: 02

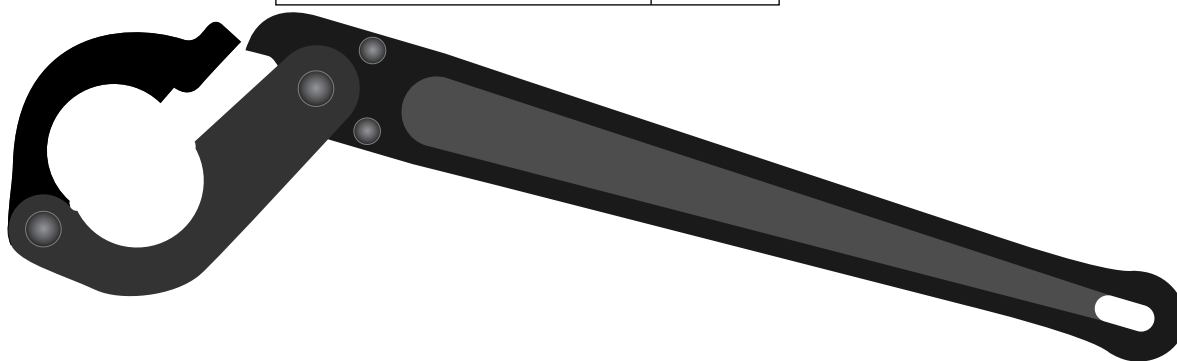
"O" ring:	ATW-U:	14-21-426
	BTW-U:	13-40-302
	NTW-U:	13-40-402
Retainer latch:	ATW-U:	13-43-203
	BTW-U:	13-43-303
	NTW-U:	13-43-403
Loading chamber body:	ATW-U:	13-43-204
	BTW-U:	13-43-304
	NTW-U:	13-43-404
Quick detach/ male (2):	All sizes: 13-40-206	
Quick detach/female:	All sizes: 13-40-207	
Packing housing:	ATW-U:	13-40-208
	BTW-U:	13-40-308
	NTW-U:	13-40-408
Bushing (3/16"):	All sizes: 13-40-209	
Bushing (1/4"):	All sizes: 13-40-221	
Cable packing(3/16"):	All sizes: 13-40-210	
Cable packing(1/4"):	All sizes: 13-40-222	
Packing plug (3/16"):	All sizes: 13-40-211	
Packing plug (1/4"):	All sizes: 13-40-223	
Quick detach "O" ring:	All sizes: 13-40-214	

WIRELINE WRENCHES

				Weight	
				lb	kg
Outer tube wrench:	A W/L:	12-21-261		4.05	1.8
	B W/L:	12-21-361		4.00	1.8
	N W/L:	12-21-461		8.10	3.7
	H W/L:	12-21-561		9.45	4.3
	HW W/L:	12-21-661		11.18	5.7
	P W/L:	12-21-661		11.18	5.7
Inner tube wrench:	A W/L:	12-21-260		3.30	1.5
	B W/L:	12-21-360		4.00	1.8
	N W/L:	12-21-460		3.80	1.7
	H W/L:	12-21-461		8.10	3.7
	HW W/L:	12-21-660		9.08	4.1
	P W/L:	12-21-660		9.08	4.1

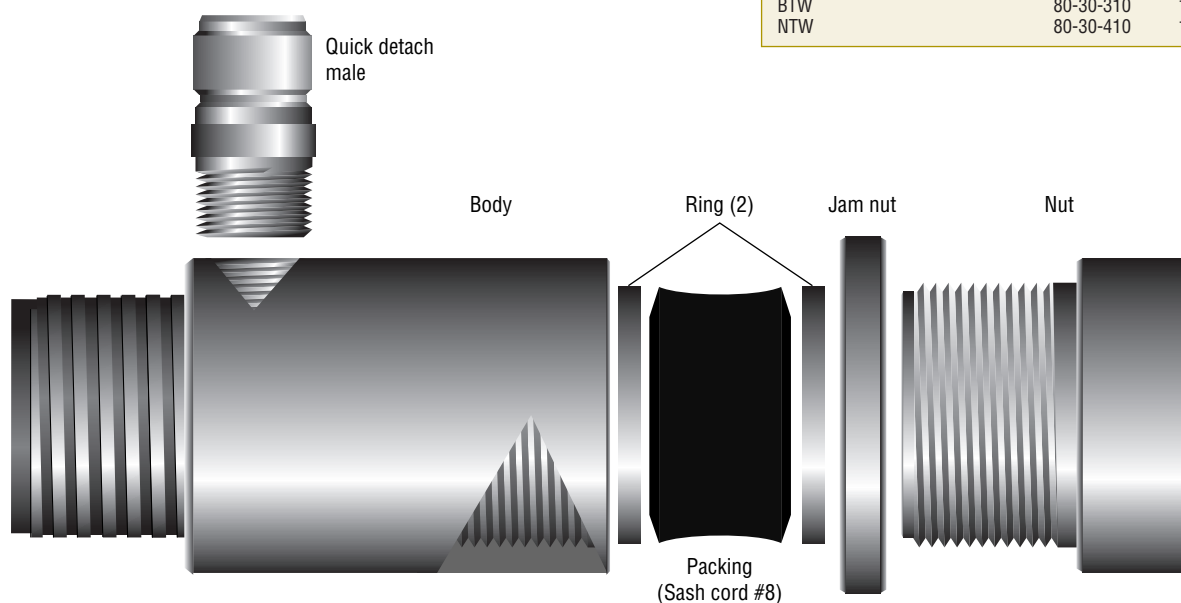
WIRELINE THIN WALL WRENCHES

				Weight	
				lb	kg
Outer tube wrench, Thin wall:	ATW:	12-21-261		4.05	1.8
	BTW:	12-21-361		4.00	1.8
	NTW:	12-23-461		8.30	3.7
	N W/L 2:	12-21-461		8.10	3.7
	HTW:	12-21-660		9.08	4.1
Inner tube wrench, Thin wall:	ATW:	12-23-260		3.30	1.5
	BTW:	12-21-261		4.05	1.8
	NTW:	12-23-460		4.37	2.0
	N W/L 2:	12-21-361		4.00	1.8
	HTW:	12-23-560		7.95	3.6



ASSEMBLIES

Description	Part N ^o .	Weight	
		lb	kg
Wireline Packing Boxes			
A W/L	80-30-200	6.88	3.1
B W/L	80-30-300	10.50	4.8
N W/L	80-30-400	17.45	7.9
H W/L	80-30-500	23.70	10.8
Wireline Thin Wall Packing Boxes			
ATW	80-30-200	6.88	3.1
BTW	80-30-310	10.50	4.8
NTW	80-30-410	17.45	7.9

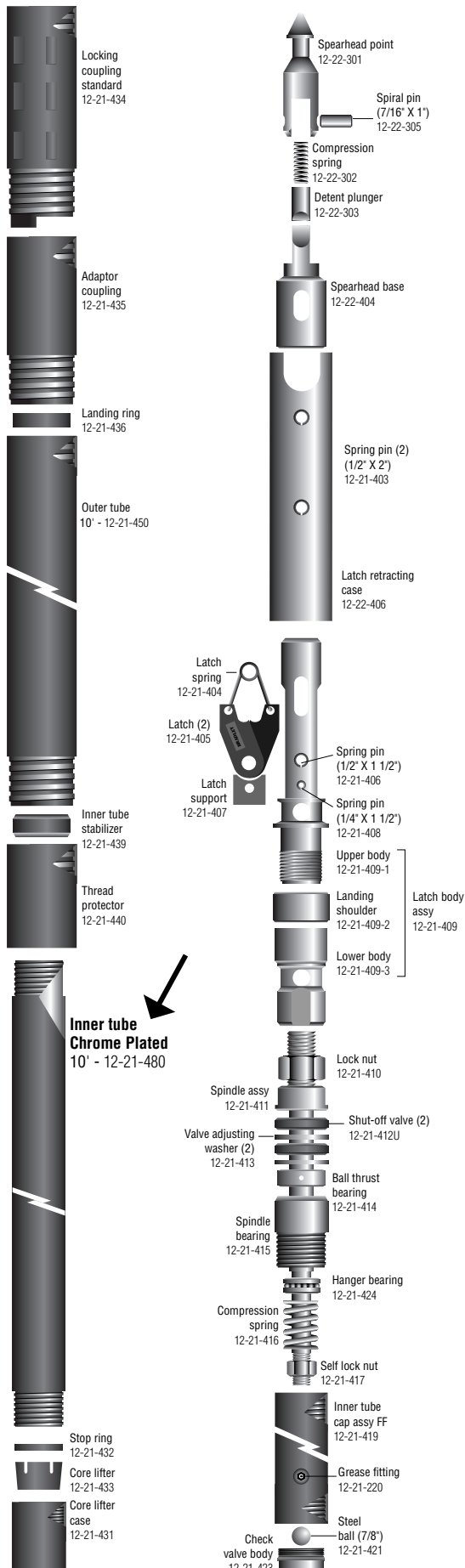

WIRELINE PACKING BOXES

Nut	A W/L	80-30-201
	B W/L	80-30-301
	N W/L	80-30-401
	H W/L	80-30-501
Body	A W/L	80-30-202
	B W/L	80-30-302
	N W/L	80-30-402
	H W/L	80-30-502
Ring (2)	A W/L	80-30-203
	B W/L	80-30-303
	N W/L	80-30-403
	H W/L	80-30-503
Packing	A W/L	80-30-204
	B W/L	80-30-304
	N W/L	80-30-404
Sash cord #8	H W/L	80-30-504
Quick detach male	All sizes	13-40-206
Jam nut	B W/L	80-30-301A
	N W/L	80-30-401A

WIRELINE THIN WALL PACKING BOXES

Nut	ATW	80-30-201
	BTW	80-30-301
	NTW	80-30-411
Body	ATW	80-30-202
	BTW	80-30-302
	NTW	80-30-412
Ring (2)	ATW	80-30-203
	BTW	80-30-311
	NTW	80-30-413
Packing	ATW	80-30-204
	BTW	80-30-304
Sash cord #8	NTW	80-30-504
Quick detach male	All sizes	13-40-206
Jam nut	BTW	80-30-301A
	NTW	80-30-401A

N W/L WIRELINE CORE BARREL ASSEMBLY 10'



Description of Option

Code

Inner tube chrome plated	-1
Inner tube and outer tube chrome plated	-2
Outer tube chrome plated	-3
Inner tube and outer tube chrome plated, and locking coupling carbide	-4
H W/L locking coupling carbide	-5
Outer tube hexagon	-6
HWL locking coupling carbide	-7
Outer tube hexagon and locking coupling carbide	-8
HWL locking coupling standard	-9
Outer tube hexagon and N W/L locking coupling standard NTW rod box	-10
Locking coupling carbide	-11
Inner tube chrome plated, outer tube hexagon and locking coupling carbide	-12
HWL locking coupling standard, inner tube and outer tube chrome plated	-13
Inner tube chrome plated and locking coupling carbide	-16
N W/L locking coupling standard NTW rod box and inner tube chrome plated	-20
Inner tube chrome plated and locking coupling hexagon	-21
HWL locking coupling carbide and outer tube chrome plated	-22
N W/L-U core barrel to use with NTW rod	-24
Outer tube and locking coupling hexagon	-25
Outer tube, locking coupling and adapter coupling hexagon	-26
Locking coupling hexagon	-29
Inner tube chrome plated & P W/L locking coupling STD HWT box	-31
Inner tube chrome plated & outer tube hexagon	-32
HWT locking coupling STD	-33
Outer tube heat treated	-34

EXAMPLE:

12-02-410-1 (Code at end of part number)

N W/L Core Barrel Knuckle Head Assembly 10'
 - with inner tube chrome plated

Standard Drill Rods and Couplings: C-2

WJ Drill Rods: C-3

Heat Treated Wireline Drill Rods: C-4

Heat Treated Wireline Drill Rods Thin Wall: C-5

Flush Joint Casing: C-6

Wireline Rod and Casing Cutters

AW Casing C-7

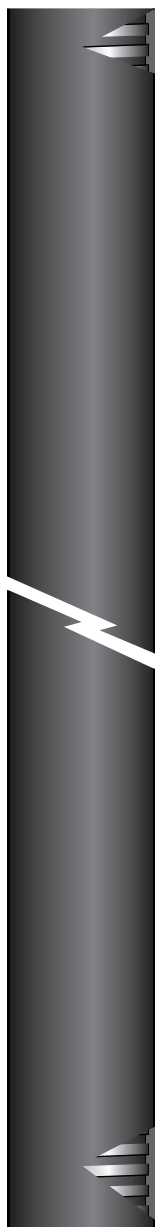
BW Casing C-8

NW Casing C-9

HW Casing C-10

Container Capacity Information: C-11

Dimensions, Weights and Volumes: C-12



Drill rod
complete
with coupling



Drill rod
coupling

Description	Length	Part N°.	Weight	
			lb	kg
AW	1'	30-10-201	5.04	2.3
AW	2'	30-10-202	8.76	4.0
AW	3'	30-10-203	11.95	5.4
AW	5'	30-10-205	19.92	9.1
AW	10'	30-10-210	38.92	17.7
BW	1'	30-10-301	8.37	3.8
BW	2'	30-10-302	14.15	6.4
BW	3'	30-10-303	18.99	8.6
BW	5'	30-10-305	31.65	14.4
BW	10'	30-10-310	63.15	28.7
NW	1'	30-10-401	9.20	4.2
NW	2'	30-10-402	18.73	8.5
NW	3'	30-10-403	18.44	8.4
NW	5'	30-10-405	30.73	14.0
NW	10'	30-10-410	56.50	25.7
HW	1'	30-10-501	14.38	6.5
HW	2'	30-10-502	31.65	14.4
HW	3'	30-10-503	42.50	9.6
HW	5'	30-10-505	65.15	16.0
HW	10'	30-10-510	122.80	55.8

DRILL ROD COUPLINGS

Description	Part N°.
AW	30-10-200
BW	30-10-300
NW	30-10-400
HW	30-10-500



WJ Drill Rod

Description	Length	Part N°.	Weight	
			lb	kg
AWJ	2'	30-10-282	6.00	2.7
AWJ	5'	30-10-285	15.00	6.8
AWJ	10'	30-10-290	29.00	13.2
BWJ	2'	30-10-382	9.50	4.3
BWJ	5'	30-10-385	22.50	10.2
BWJ	10'	30-10-390	44.00	20.0
NWJ	2'	30-10-482	13.00	2.9
NWJ	5'	30-10-485	29.40	13.4
NWJ	10'	30-10-490	56.50	25.7
Metric				
AWJ	0.75 m	30-15-282	6.00	2.7
AWJ	1.50 m	30-15-285	14.50	6.6
AWJ	3.00 m	30-15-290	27.10	12.3
BWJ	0.75 m	30-15-382	9.00	4.1
BWJ	1.50 m	30-15-385	21.80	9.9
BWJ	3.00 m	30-15-390	41.50	18.9
NWJ	0.75 m	30-15-482	12.20	5.5
NWJ	1.50 m	30-15-485	27.70	12.6
NWJ	3.00 m	30-15-490	53.10	24.1



Wireline
drill rod

Description	Length	Part N ^o .	Weight	
			lb	kg
A W/L	2'	30-31-202	6.00	2.7
A W/L	5'	30-31-205	15.50	20.7
A W/L	10'	30-31-210	31.30	14.2
B W/L	2'	30-31-302	8.00	3.6
B W/L	5'	30-31-305	20.00	9.1
B W/L	10'	30-31-310	40.00	18.2
N W/L	2'	30-31-402	10.50	4.8
N W/L	5'	30-31-405	25.00	11.4
N W/L	10'	30-31-410	51.00	23.2
NC W/L *	10'	30-32-410	45.00	20.4
NM W/L (i.d. groove)	2'	30-33-402	10.50	4.8
NM W/L (i.d. groove)	5'	30-33-405	25.00	11.4
NM W/L (i.d. groove)	10'	30-33-410	57.00	23.2
H W/L	2'	30-31-502	15.50	7.0
H W/L	5'	30-31-505	38.50	17.5
H W/L	10'	30-31-510	77.00	35.0
HC W/L *	10'	30-32-510	59.50	27.0
HM W/L (i.d. groove)	2'	30-33-502	15.50	7.0
HM W/L (i.d. groove)	5'	30-33-505	38.50	17.5
HM W/L (i.d. groove)	10'	30-33-510	77.00	35.0
HWL	2'	30-51-502	15.00	6.8
HWL	5'	30-51-505	38.00	17.3
HWL	10'	30-51-510	76.50	34.8
HMC W/L *	10'	30-52-510	63.16	28.7
P W/L	2'	30-31-602	21.10	9.6
P W/L	5'	30-31-605	54.10	24.6
P W/L	10'	30-31-610	104.60	48.0
HW W/L	2'	30-34-602	23.12	10.5
HW W/L	5'	30-34-605	57.80	26.3
HW W/L	10'	30-34-610	115.60	52.5
HWT	2'	30-72-502	23.50	10.6
HWT	5'	30-72-505	58.50	26.5
HWT	10'	30-72-510	117.00	53.1
*W/L "C" series = upset ends.				
Metric				
A W/L	0.75 m	30-36-202	6.00	2.7
A W/L	1.50 m	30-36-205	15.00	6.8
A W/L	3.00 m	30-36-210	30.00	13.6
B W/L	0.75 m	30-36-302	7.80	3.6
B W/L	1.50 m	30-36-305	19.10	8.7
B W/L	3.00 m	30-36-310	39.00	17.7
N W/L	0.75 m	30-36-402	10.20	4.6
N W/L	1.50 m	30-36-405	24.00	10.9
N W/L	3.00 m	30-36-410	51.00	23.2
NM W/L (i.d. groove)	0.75 m	30-38-402	10.20	4.6
NM W/L (i.d. groove)	1.50 m	30-38-405	24.00	10.9
NM W/L (i.d. groove)	3.00 m	30-38-410	51.00	23.2
H W/L	0.75 m	30-36-502	15.20	6.9
H W/L	1.50 m	30-36-505	37.80	17.2
H W/L	3.00 m	30-36-510	76.00	34.5
HM W/L (i.d. groove)	0.75 m	30-38-502	15.20	6.9
HM W/L (i.d. groove)	1.50 m	30-38-505	37.80	17.2
HM W/L (i.d. groove)	3.00 m	30-38-510	76.00	34.5
HW W/L	0.75 m	30-39-602	22.80	10.4
HW W/L	1.50 m	30-39-605	57.00	25.9
HW W/L	3.00 m	30-39-610	114.00	51.8
HWT	0.75 m	30-77-502	23.50	10.6
HWT	1.50 m	30-77-505	58.25	26.4
HWT	3.00 m	30-77-510	116.00	52.6



Thin wall
wireline
drill rod

Description	Length	Part N°.	Weight	
			lb	kg
ATW	2'	30-61-202	5.20	2.4
ATW	5'	30-61-205	13.00	5.9
ATW	10'	30-61-210	26.00	11.8
BTW	2'	30-61-302	7.50	3.4
BTW	5'	30-61-305	17.50	8.0
BTW	10'	30-61-310	34.50	15.7
NTW	2'	30-61-402	10.00	4.5
NTW	5'	30-61-405	25.00	11.4
NTW	10'	30-61-410	50.00	22.7
HTW	2'	30-61-502	13.50	6.2
HTW	5'	30-61-505	34.00	15.4
HTW	10'	30-61-510	67.80	30.8
Metric				
ATW	0.75 m	30-66-202	5.20	2.4
ATW	1.50 m	30-66-205	13.00	5.9
ATW	3.00 m	30-66-210	26.00	11.8
BTW	0.75 m	30-66-302	6.80	3.1
BTW	1.50 m	30-66-305	17.00	7.7
BTW	3.00 m	30-66-310	34.00	15.5
NTW	0.75 m	30-66-402	9.80	4.5
NTW	1.50 m	30-66-405	24.50	11.2
NTW	3.00 m	30-66-410	49.05	22.3
HTW	0.75 m	30-66-502	16.60	7.5
HTW	1.50 m	30-66-505	33.30	15.1
HTW	3.00 m	30-66-510	66.70	30.2



Casing

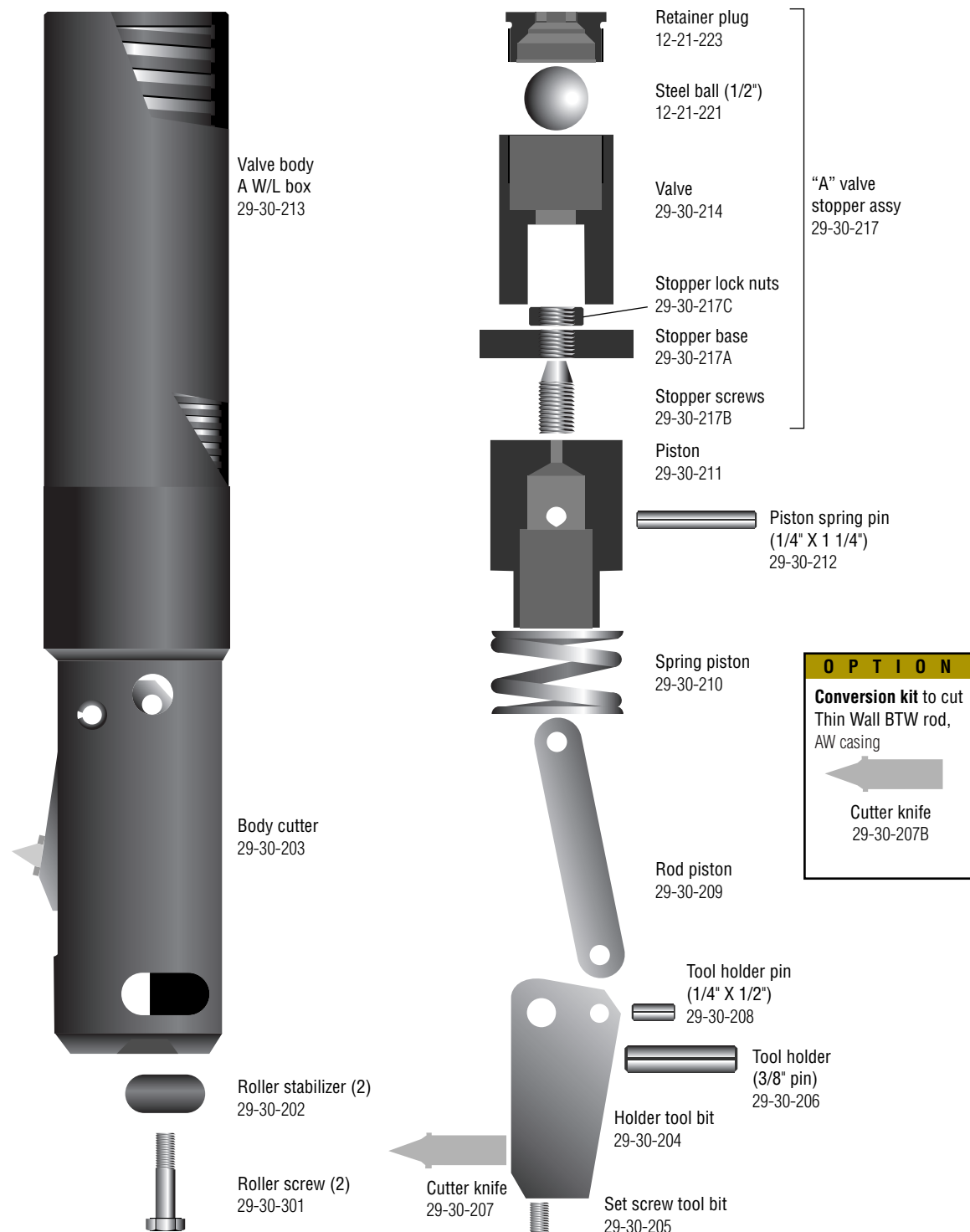
Description	Length	Part N°.	Weight	
			lb	kg
AW	2'	20-10-202	7.50	3.4
AW	5'	20-10-205	19.00	8.6
AW	10'	20-10-210	37.00	16.8
BW	2'	20-10-302	14.00	6.4
BW	5'	20-10-305	35.00	15.9
BW	10'	20-10-310	70.00	31.8
NW	2'	20-10-402	17.00	7.7
NW	5'	20-10-405	42.50	19.3
NW	10'	20-10-410	86.00	39.1
HW	2'	20-10-502	23.00	10.5
HW	5'	20-10-505	58.00	26.4
HW	10'	20-10-510	116.50	53.0
HWT	2'	20-12-502	23.50	10.6
HWT	5'	20-12-505	58.50	26.5
HWT	10'	20-12-510	117.00	53.1
PW	2'	20-10-602	28.50	13.0
PW	5'	20-10-605	70.00	31.8
PW	10'	20-10-610	144.00	65.5
Metric				
AW	0.75 m	20-15-202	7.00	3.1
AW	1.50 m	20-15-205	18.50	8.4
AW	3.00 m	20-15-210	36.00	16.4
BW	0.75 m	20-15-302	13.50	6.1
BW	1.50 m	20-15-305	34.00	15.5
BW	3.00 m	20-15-310	69.00	31.4
NW	0.75 m	20-15-402	28.00	12.7
NW	1.50 m	20-15-405	41.50	18.8
NW	3.00 m	20-15-410	85.00	38.6
HW	0.75 m	20-15-502	23.00	10.4
HW	1.50 m	20-15-505	57.75	26.3
HW	3.00 m	20-15-510	115.50	52.5
HWT	0.75 m	20-17-502	23.50	10.6
HWT	1.50 m	20-17-505	58.25	26.4
HWT	3.00 m	20-17-510	116.00	52.6
PW	0.75 m	20-15-602	27.50	12.5
PW	1.50 m	20-15-605	69.00	31.4
PW	3.00 m	20-15-610	143.00	65.0

ASSEMBLY

Description	Part N°.	Weight	
		lb	kg
AW Casing/B W/L Rod Cutter Assy	29-30-200	13.00	5.9

Repair Kit

	29-30-220	~	~
- Roller stabilizer (2) - Tool holder (3/8" pin) (1) - Tool holder (1/4" pin) (1) - Cutter knife (1) - Piston spring pin (1) - Screw roller (2) - Tool screw (1) - Set screw tool bit (1)			



B2620 - Revision: 02

ASSEMBLY

Description	Part N°.	Weight	
		lb	kg
BW Casing/ N W/L Rod Cutter Assy	29-30-300	17.50	8.0

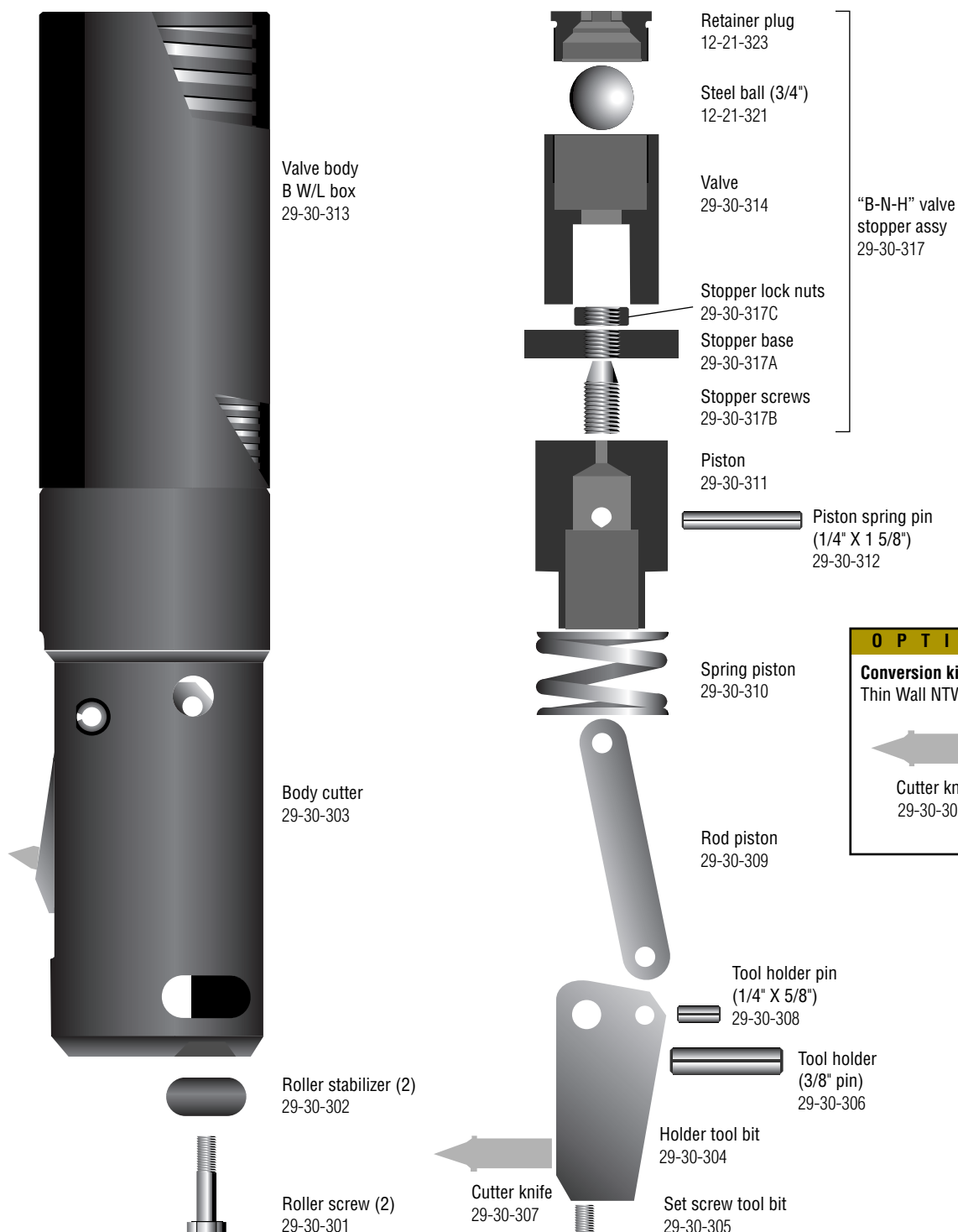
Repair Kit

- Roller stabilizer (2)
- Screw roller (2)
- Tool holder (3/8" pin) (1)
- Tool holder (1/4" pin) (1)
- Cutter knife (1)
- Piston spring pin (1)
- Set screw tool bit (1)

29-30-320

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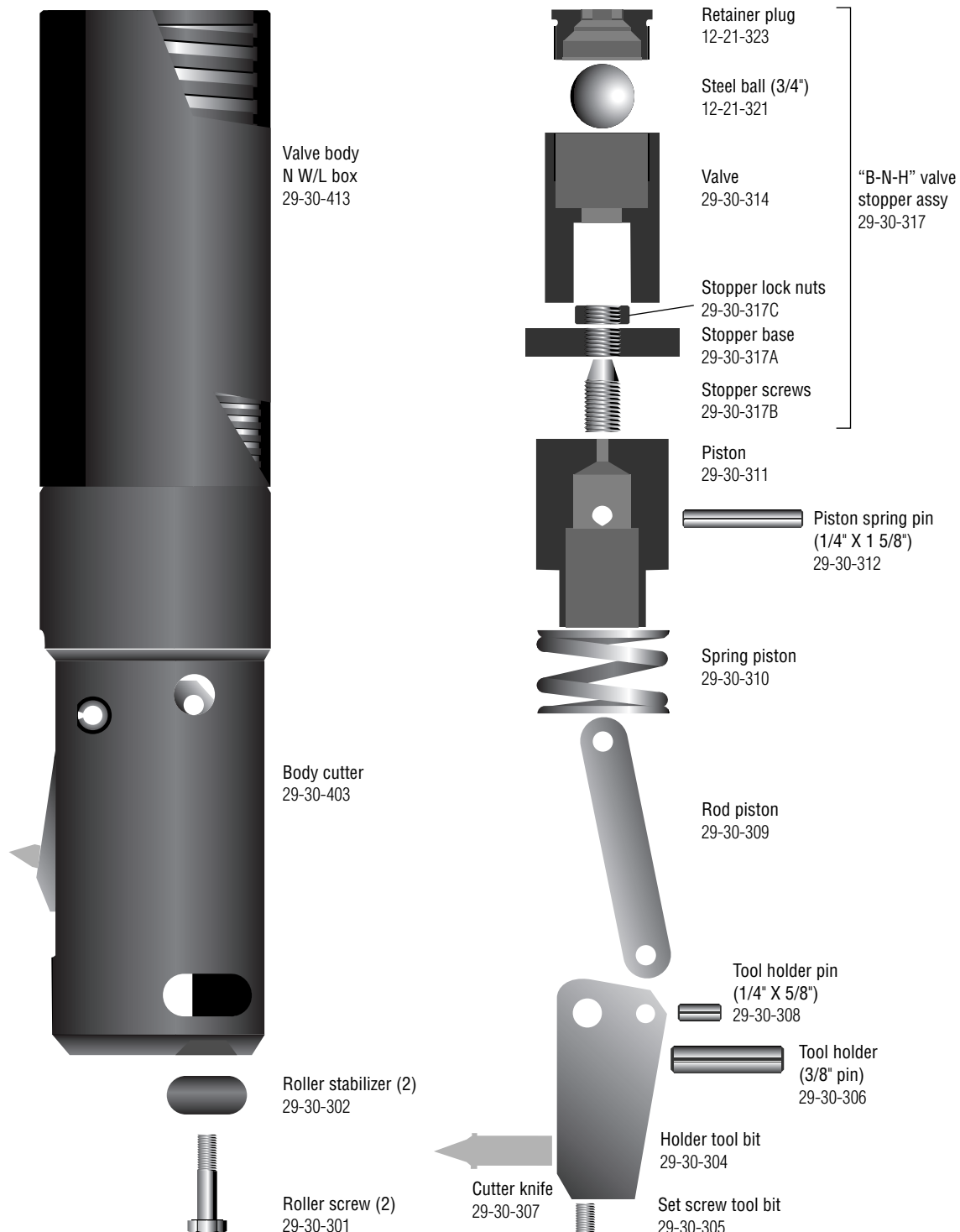


ASSEMBLY

Description	Part N°.	Weight	
		lb	kg
NW Casing/H W/L Rod Cutter Assy	29-30-400	25.00	11.4

Repair Kit

29-30-320	~	~
- Roller stabilizer (2) - Screw roller (2) - Tool holder (3/8" pin) (1) - Tool holder (1/4" pin) (1) - Cutter knife (1) - Piston spring pin (1) - Set screw tool bit (1)		



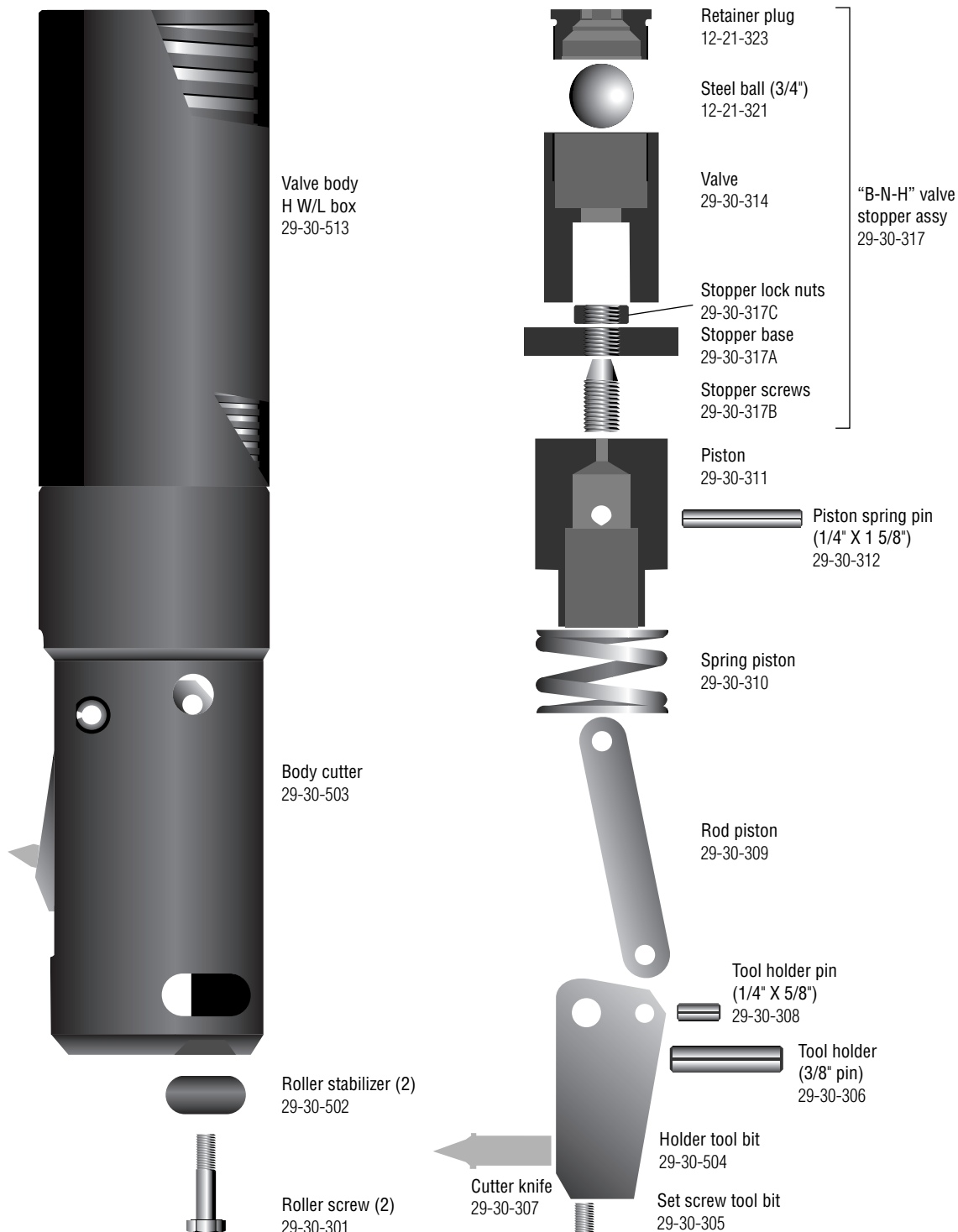
D1789 - Revision: 01

ASSEMBLY

Description	Part N°.	Weight	
		lb	kg
HW Casing/HW W/L & P W/L Rod Cutter Assy	29-30-500	38.70	17.6

Repair Kit

29-30-520	~	~
- Roller stabilizer (2) - Screw roller (2) - Tool holder (3/8" pin) (2) - Tool holder (1/4" pin) (2) - Cutter knife (1) - Piston spring pin (1) - Set screw tool bit (1)		



LOADING SHEET

Description	Length	Quantity/bundle	Weight/bundle		Length (in)	Height (in)	Width (in)
			lb	kg			
WIRELINE							
DRILL RODS							
B W/L	10'	19	780	354.1	126	10 1/4	11 5/8
N W/L	10'	19	1 005	456.3	126	13	14 3/4
H W/L	10'	19	1 500	681.0	126	16 1/8	18 1/2
HM W/L	10'	19	1 500	681.0	126	16 1/8	18 1/2
HMC W/L	10'	19	1 200	544.8	126	16 1/8	18 1/2
HW W/L	10'	7	840	381.4	126	16 1/8	18 1/2
P W/L	10'	7	775	351.9	126	13	14 3/4
Thin Wall							
ATW	10'	19	520	236.1	126	8	9 1/2
BTW	10'	19	675	306.5	126	10 5/8	12
NTW	10'	19	980	444.9	126	13 1/2	15 3/8
CASING							
BW	10'	19	1 350	612.4	126	13 1/2	15 3/8
NW	10'	19	1 690	766.6	126	16 1/8	18 1/2
HW	10'	7	840	381.0	126	13	14 3/4
PW	10'	7	1 030	467.2	126	13	14 3/4
METRIC							
WIRELINE							
DRILL RODS							
B W/L	3m	19	780	354.1	126	10 1/4	11 5/8
N W/L	3m	19	985	447.2	126	13	14 3/4
H W/L	3m	19	1 480	671.9	126	16 1/8	18 1/2
HM W/L	3m	19	1 480	671.9	126	16 1/8	18 1/2
HW W/L	3m	7	825	374.6	126	16 1/8	18 1/2
P W/L	3m	7	750	340.5	126	13	14 3/4
P W/L	3m with coupling	7	765	347.3	126	13	14 3/4
Thin Wall							
ATW	3m	19	515	233.8	126	8	9 1/2
BTW	3m	19	665	301.9	126	10 5/8	12
NTW	3m	19	975	442.7	126	13 1/2	15 3/8
CASING							
BW	3m	19	1 340	607.8	126	13 1/2	15 3/8
NW	3m	19	1 680	762.0	126	16 1/8	18 1/2
HW	3m	7	825	374.2	126	13	14 3/4
PW	3m	7	1 025	464.9	126	13	14 3/4

20' CONTAINER (Full Load)

Description	Weight	
	lb	kg
B W/L Drill Rod		
- 56 bundles of 19 (1 064 pieces)	43 400	19 703.6
- packaging	500	227.0
Total Weight	43 900	19 930.6
N W/L Drill Rod		
- 36 bundles of 19 (684 pieces)	35 460	16 098.8
- packaging	500	227.0
Total Weight	35 960	16 325.8
H W/L Drill Rod		
- 25 bundles of 19 (475 pieces)	37 000	16 798.0
- packaging	500	227.0
Total Weight	37 500	17 025.0

40' CONTAINER (Full Load)

Description	Weight	
	lb	kg
HW W/L Drill Rod 3m		
- 68 bundles of 7 (476 pieces)	56 100	25 401.4
- packaging	1 000	454.0
Total Weight	57 100	25 855.4

20' CONTAINER (1/4 - 3/4 Full)

Description	Weight	
	lb	kg
H W/L Drill Rod		
- 10 bundles of 19 (190 pieces)	14 800	6 713.1
HW Casing		
- 24 bundles of 7 (168 pieces)	16 800	7 620.4
- packaging	500	227.0
Total Weight	35 100	14 560.6
N W/L Drill Rod		
- 24 bundles of 19 (456 pieces)	23 640	10 732.6
NW Casing		
- 10 bundles of 19 (190 pieces)	16 800	7 627.2
- packaging	500	227.0
Total Weight	40 940	18 586.8

40' CONTAINER (Full Load)

Description	Weight	
	lb	kg
BW Casing 10'		
- 42 bundles of 19 (798 pieces)	56 700	25 719.0
- packaging	1 000	454.0
Total Weight	57 700	26 173.0
NW Casing 10'		
- 33 bundles of 19 (627 pieces)	55 770	25 297.1
- packaging	1 000	454.0
Total Weight	56 770	25 751.1
HW Casing 10'		
- 67 bundles of 7 (469 pieces)	56 280	25 528.4
- packaging	1 000	454.0
Total Weight	57 280	25 982.4
PW Casing 10'		
- 55 bundles of 7 (385 pieces)	56 650	25 696.3
- packaging	1 000	454.0
Total Weight	57 650	26 150.3
BW Casing 3m		
- 42 bundles of 19 (798 pieces)	56 280	25 528.4
- packaging	1 000	454.0
Total Weight	57 280	25 982.4
NW Casing 3m		
- 33 bundles of 19 (627 pieces)	55 440	25 147.4
- packaging	1 000	454.0
Total Weight	56 440	25 601.4
HW Casing 3m		
- 67 bundles of 7 (469 pieces)	56 100	25 446.8
- packaging	1 000	454.0
Total Weight	57 100	25 900.8
PW Casing 3m		
- 55 bundles of 7 (385 pieces)	56 375	25 571.5
- packaging	1 000	454.0
Total Weight	57 375	26 025.5

20' CONTAINER (Full Load - Mixed)

Description	Weight	
	lb	kg
B W/L Drill Rod 3m		
- 27 bundles of 19 (513 pieces)	20 925	9 500.0
N W/L Drill Rod 3m		
- 21 bundles of 19 (399 pieces)	20 685	9 391.0
- packaging	500	227.0
Total Weight	42 110	19 117.9
N W/L Drill Rod 3m		
- 18 bundles of 19 (342 pieces)	17 730	8 049.4
H W/L Drill Rod 3m		
- 15 bundles of 19 (285 pieces)	22 200	10 078.8
- packaging	500	227.0
Total Weight	40 430	18 355.2
HW W/L Drill Rod 10'		
- 36 bundles of 7 (252 pieces)	30 240	13 729.0
- drill parts may be added to complete the load		
- packaging	500	227.0
Total Weight	30 740	13 956.0
P W/L Drill Rod 10'		
- 36 bundles of 7 (252 pieces)	27 900	12 666.6
- drill parts may be added to complete the load		
- packaging	500	227.0
Total Weight	28 400	12 893.6

CONTAINER SIZES

Size	Length	Width	Height
20' Container	18'	7' 6"	7' 6"
40' Container	39'	7' 6"	7' 6"

Note: Certain restrictions may apply.

Wireline Drill Rods

SIZE	O.D. (in.)	I.D. (in.)	WEIGHT (lb/10ft)	THREADS PER IN.	CONTENT (US gal/ 100ft)
A W/L	1 3/4	1 3/8	31.2	4	7.7
B W/L	2 3/16	1 13/16	40	3	13.4
N W/L	2 3/4	2 3/8	52	3	23.0
NM W/L	2 3/4	2 3/8	52	3	23.0
H W/L	3 1/2	3 1/16	77	3	38.2
HM W/L	3 1/2	3 1/16	77	3	38.2
HW W/L	4 1/2	4	113.4	3	65.2
HWT	4 1/2	4	113.5	2.5	65.8
P W/L	4 5/8 *	4 1/16	106 **	3	67.4

* Coupling O.D. ** With Coupling
P W/L Rod Body O.D. = 4 1/2 inches

THIN WALL DRILL RODS

ATW	1.750	1.437	26.0	4.6	8.4
BTW	2.225	1.909	34.5	4.6	14.8
NTW	2.875	2.525	50.0	4	26.0
HTW	3.582	3.208	67.8	2	41.9

C W/L WIRELINE DRILL RODS

SIZE	O.D. (in.)	I.D. (in.)	TOOL JOINT I.D.	WEIGHT (lb/10ft)	THREADS PER IN.	CONTENT (US gal/ 100ft)
BC W/L	2 3/16	1 7/8	1 13/16	35.3	3	14.2
NC W/L	2 3/4	2 7/16	2 3/8	45.0	3	24.0
HC W/L	3 1/2	3 3/16	3 1/16	59.5	3	41.4
HMC W/L	3 1/2	3 3/16	3 1/16	59.5	3	41.4

Drill Rods and Casing

Drill Rods

SIZE	O.D. (in.)	I.D. (in.)	WEIGHT (lb/10ft)	COUPLING I.D.(in.)	THREADS PER IN.	CONTENT (US gal/ 100ft)
AW	1 23/32	1 7/32	44	5/8	3	6.0
BW	2 1/8	1 1/2	63	3/4	3	8.6
NW	2 5/8	2	79.7	1 3/8	3	16.0
HW	3 1/2	3 13/16	122.6	2 3/8	3	31.5

J Rods

SIZE	O.D. (in.)	I.D. (in.)	WEIGHT (lb/10ft)	COUPLING I.D.(in.)	CONTENT (US gal/ 100ft)	I/D TOOL JOINT
AWJ	1 3/4	1 7/16	29	5	8.1	5/8
BWJ	2 3/16	1 13/16	44	5	12.9	1 3/16
NWJ	2 3/4	2 3/8	56.5	4	21.7	1 1/4

Flush Joint Casing

SIZE	O.D. (in.)	I.D. (in.)	WEIGHT (lb/10ft)	THREADS PER IN.	CONTENT (US gal/ 100ft)
EW	1 13/16	1 1/2	28	4	9.2
AW	2 1/4	1 29/32	38	4	14.8
BW	2 7/8	2 3/8	70	4	23.0
NW	3 1/2	3	86	4	36.7
HW	4 1/2	4	113.5	4	65.2
HWT	4 1/2	4	113.5	2.5	65.8
PW	5 1/2	5	140.1	3	102.0

Diamond Core Bits

Wireline Diamond Bits

SIZE	CORE DIAMETER (in.)		HOLE DIAMETER (in.)		HOLE VOLUME (US gal/ 100ft)
	Decimal	Fractional	Decimal	Fractional	
A W/L, A W/L-U	1.062	1 1/16	1.890	1 57/64	14.6
B W/L, B W/L-U	1.432	1 7/16	2.360	2 23/64	22.7
N W/L, N W/L-U	1.875	1 7/8	2.980	2 63/64	36.3
H W/L, H W/L-U	2.500	2 1/2	3.782	3 25/32	58.3
HM W/L	2.500	2 1/2	3.782	3 25/32	58.3
HW W/L	3.345	3 11/32	4.827	4 53/64	95.1
P W/L	3.345	3 11/32	4.827	4 53/64	95.1

B W/L-3	1.320	1 5/16	2.360	2 23/64	22.7
N W/L-3	1.775	1 25/32	2.980	2 63/64	36.3
H W/L-3	2.406	2 13/32	3.782	3 25/32	58.3
P W/L-3	3.270	3 9/32	4.827	4 53/64	95.1

THIN WALL WIRELINE DIAMOND BIT

ATW	1.185	1 3/64	1.890	1 57/64	14.6
BTW	1.654	1 21/32	2.360	2 23/64	22.7
NTW	2.205	2 13/64	2.980	2 63/64	36.3
N W/L-2	1.990	1 63/64	2.980	2 63/64	36.3
HTW	2.792	2 51/64	3.782	3 25/32	58.3

CASING SHOES (in.)

SIZE	RW	EW	AW	BW	NW	HW	PW	SW
O.D.	1.485	1.875	2.350	2.965	3.615	4.625	5.650	6.790
I.D.	1.185	1.495	1.900	2.370	2.992	3.930	4.777	5.777

M E T R I C

Wireline Drill Rods

SIZE	O.D. (mm)	I.D. (mm)	WEIGHT (kg/3m)	THREADS PER IN.	CONTENT (L/100ml)
A W/L	44.5	34.9	14.0	4	95.8
B W/L	55.6	46.0	18.0	3	166.3
N W/L	69.9	60.3	23.4	3	285.8
NM W/L	69.9	60.3	23.4	3	285.8
H W/L	88.9	77.8	34.4	3	474.4
HM W/L	88.9	77.8	34.4	3	474.4
HW W/L	114.3	101.6	50.6	3	810.5
HWT	114.3	101.6	50.5	2.5	810.5
P W/L	117.5*	103.2	47.2**	3	836.6

* Coupling O.D. ** With Coupling
P W/L Rod Body O.D. = 114.3 mm

THIN WALL DRILL RODS

ATW	44.5	36.5	11.8	4.6	104.5
BTW	56.5	48.5	15.8	4.6	184.5
NTW	73.3	64.2	22.7	4	323.0
HTW	90.9	81.5	30.2	2	521.9

C W/L WIRELINE DRILL RODS

SIZE	O.D. (mm)	I.D. (mm)	TOOL JOINT I.D.	WEIGHT (kg/3m)	THREADS PER IN.	CONTENT (L/100ml)
BC W/L	55.6	47.6	46.0	15.8	3	177.2
NC W/L	69.9	61.9	60.3	20.7	3	299.2
HC W/L	88.9	80.9	77.8	27.4	3	515.1
HMC W/L	88.9	80.9	77.8	27.4	3	515.1

Drill Rods and Casing

Drill Rods

SIZE	O.D. (mm)	I.D. (mm)	WEIGHT (kg/3m)	COUPLING I.D.(mm)	THREADS PER IN.	CONTENT (L/100ml)
AW	43.6	30.9	19.7	15.9	3	75.0
BW	54.0	38.1	28.1	19.0	3	111.2
NW	66.7	50.8	35.6	34.9	3	199.0
HW	88.9	71.4	55.0	60.3	3	390.5

J Rods

SIZE	O.D. (mm)	I.D. (mm)	WEIGHT (kg/3m)	THREADS PER IN.	CONTENT (L/100ml)	I/D TOOL JOINT
AWJ	44.5	36.5	13.2	5	101.2	15.8
BWJ	55.6	46.0	20.0	5	160.7	30.1
NWJ	69.9	60.3	25.7	4	274.4	31.7

Flush Joint Casing

SIZE	O.D. (mm)	I.D. (mm)	WEIGHT (kg/3m)	THREADS PER IN.	CONTENT (L/100ml)
EW	46.0	38.1	12.5	4	113.8
AW	57.1	48.4	17.2	4	184.1
BW	73.0	60.3	31.8	4	285.8
NW	88.9	76.2	38.4	4	455.7
HW	114.3	101.6	50.5	4	810.4
HWT	114.3	101.6	50.5	2.5	810.5
PW	139.7	127.0	64.3	3	1266.6

Diamond Core Bits

Wireline Diamond Bits

Wireline Diamond Bits

	CORE DIAMETER (mm)	HOLE DIAMETER (mm)	HOLE VOLUME (L/100m)
SIZE			
A W/L, A W/L-U	27.0	48.0	181.0
B W/L, B W/L-U	36.5	60.0	282.2
N W/L, N W/L-U	47.6	75.7	451.0
H W/L, H W/L-U	63.5	96.0	724.4
HM W/L	63.5	96.0	724.4
HW W/L	85.0	122.6	1180.4
P W/L	85.0	122.6	1180.4

B W/L-3	33.5		60.0		282.2
N W/L-3	45.0		75.7		451.0
H W/L-3	61.1		96.0		724.4
P W/L-3	83.0		122.6		1180.4

THIN WALL WIRELINE DIAMOND BIT

ATW	30.1		48.0		181.0
BTW	42.0		60.0		282.2
NTW	56.0		75.7		451.0
N W/L-2	50.0		75.7		451.0
HTW	70.9		96.0		724.4

CASING SHOES (mm)

SIZE	RW	EW	AW	BW	NW	HW	PW	SW
O.D.	37.7	47.6	59.6	75.3	91.8	117.4	143.5	172.4
I.D.	30.0	37.9	48.2	60.1	75.9	99.8	121.3	146.7

All dimensions, weights and volumes shown are nominal approximations.

Drill Rod Adaptors: D-2 to D-7

A.P.I. Adaptors: D-8

Casing Adaptors: D-9 to D-10

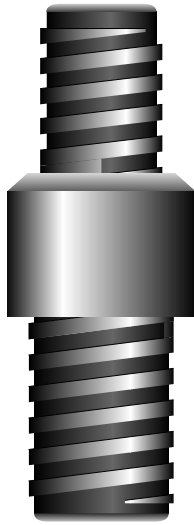
Reamer Assembly: D-11

Drill Rod Holder: D-11

Casing Drive Shoes: D-12

Casing Caps: D-12

Pipe Wrench: D-13



Description		Part N ^o .	Weight	
			lb	kg
<i>Standard Rod Pin</i>	<i>Standard Rod Pin</i>			
A	AW	32-00-300	1.79	0.8
A	B	32-00-301	2.17	1.0
A	BW	32-00-302	2.70	1.2
A	N	32-00-303	3.80	1.7
A	NW	32-00-304	4.40	2.0
A	HW	32-00-305	5.10	2.3
AW	B	32-00-400	2.31	1.1
AW	BW	32-00-401	3.12	1.4
AW	N	32-00-402	3.75	1.7
AW	NW	32-00-403	4.37	1.9
AW	HW	32-00-404	5.19	2.4
B	BW	32-00-500	3.42	1.6
B	N	32-00-501	4.35	2.0
B	HW	32-00-502	5.26	2.4
BW	N	32-00-600	3.89	1.8
BW	NW	32-00-601	4.75	2.2
BW	HW	32-00-602	5.90	2.7
N	NW	32-00-700	5.12	2.3
N	HW	32-00-701	6.74	3.1
NW	HW	32-00-800	7.00	3.2

DRILL ROD ADAPTORS



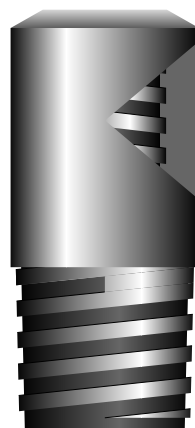
Description		Part N ^o .	Weight	
			lb	kg
<i>W/L Rod Pin</i>	<i>Standard Rod Pin</i>			
A W/L	A	34-36-003	1.82	0.8
A W/L	AW	34-36-004	2.00	0.9
A W/L	B	34-36-005	2.74	1.3
A W/L	BW	34-36-006	3.50	1.6
A W/L	N	34-36-007	3.90	1.8
A W/L	NW	34-36-008	4.45	2.0
A W/L	HW	34-36-009	5.15	2.4
B W/L	A	34-36-103	3.05	1.4
B W/L	AW	34-36-104	3.05	1.4
B W/L	B	34-36-105	3.00	1.4
B W/L	BW	34-36-106	3.00	1.4
B W/L	N	34-36-107	4.60	2.1
B W/L	NW	34-36-108	4.75	2.2
B W/L	HW	34-36-109	5.50	2.5
N W/L	A	34-36-203	4.91	2.2
N W/L	AW	34-36-204	4.89	2.2
N W/L	B	34-36-205	5.10	2.3
N W/L	BW	34-36-206	5.11	2.3
N W/L	N	34-36-207	5.28	2.4
N W/L	NW	34-36-208	5.81	2.6
N W/L	HW	34-36-209	6.70	3.1
H W/L	A	34-36-303	6.56	2.9
H W/L	AW	34-36-304	7.05	3.2
H W/L	B	34-36-305	7.20	3.0
H W/L	BW	34-36-306	7.37	3.3
H W/L	N	34-36-307	7.55	3.4
H W/L	NW	34-36-308	7.67	3.5
H W/L	HW	34-36-309	8.05	3.6
HWL	AW	34-36-310	10.60	4.8
HWL	NW	34-36-315	10.00	4.5
HM W/L	BW	34-36-325	7.40	3.3
HM W/L	NW	34-36-327	7.60	3.4
P W/L	BW	34-36-406	7.80	3.5
HW W/L	BW	34-36-407	7.80	3.5
P W/L	NW	34-36-408	9.70	4.4
HW W/L	NW	34-36-409	9.70	4.4

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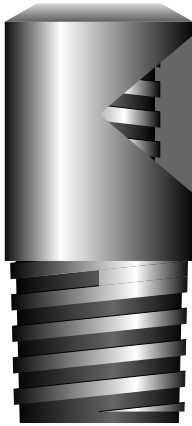


Description		Part N ^o .	Weight	
			lb	kg
<i>Thin Wall Rod Pin</i>	<i>Standard Rod Pin</i>			
ATW	A	34-65-003	2.10	1.0
ATW	AW	34-65-004	2.20	1.0
ATW	BW	34-65-006	2.35	1.1
ATW	NW	34-65-008	2.95	1.3
BTW	A	34-65-103	3.10	1.4
BTW	AW	34-65-104	3.21	1.5
BTW	BW	34-65-106	3.21	1.5
BTW	NW	34-65-108	4.70	2.1
NTW	AW	34-65-204	5.29	2.4
NTW	BW	34-65-206	4.65	2.1
NTW	NW	34-65-208	5.08	2.3
<i>Thin Wall Rod Pin</i>	<i>W/L Rod Pin</i>			
ATW	A W/L	34-65-024	1.02	0.5
ATW	B W/L	34-65-026	1.10	0.5
BTW	A W/L	34-65-124	1.50	0.7
BTW	B W/L	34-65-126	1.62	0.7
NTW	A W/L	34-65-224	5.20	2.4
NTW	B W/L	34-65-226	4.60	2.1
NTW	N W/L	34-65-227	5.00	2.3
NTW	H W/L	34-65-228	6.45	2.9

DRILL ROD ADAPTORS

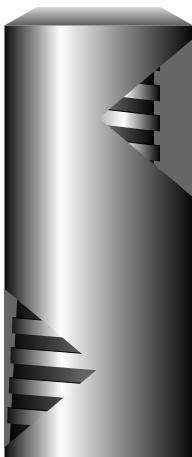


Description		Part N ^o .	Weight	
			lb	kg
<i>W/L Rod Pin</i>	<i>Standard Rod Box</i>			
A W/L	A	35-36-003	1.45	0.6
A W/L	AW	35-36-004	1.59	0.7
A W/L	B	35-36-005	1.76	0.8
A W/L	BW	35-36-006	2.00	0.9
A W/L	N	35-36-007	2.20	1.0
A W/L	NW	35-36-008	3.79	1.7
A W/L	HW	35-36-009	4.18	1.9
B W/L	A	35-36-103	3.08	1.4
B W/L	AW	35-36-104	2.79	1.3
B W/L	B	35-36-105	2.64	1.2
B W/L	BW	35-36-106	2.21	1.0
B W/L	N	35-36-107	2.86	1.3
B W/L	NW	35-36-108	3.30	1.5
B W/L	HW	35-36-109	3.74	1.7
N W/L	A	35-36-203	6.23	2.8
N W/L	AW	35-36-204	5.23	2.4
N W/L	B	35-36-205	5.00	2.2
N W/L	BW	35-36-206	4.48	2.0
N W/L	N	35-36-207	3.20	1.4
N W/L	NW	35-36-208	3.09	1.4
N W/L	HW	35-36-209	2.80	1.2
H W/L	A	35-36-303	9.95	4.5
H W/L	AW	35-36-304	7.15	3.2
H W/L	B	35-36-305	6.37	2.8
H W/L	BW	35-36-306	8.52	3.8
H W/L	N	35-36-307	8.00	3.6
H W/L	NW	35-36-308	7.77	3.5
H W/L	HW	35-36-309	2.81	1.3

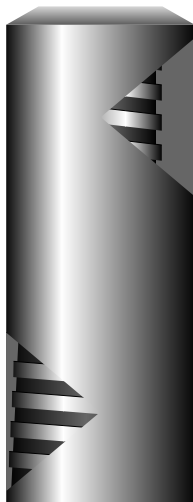


Description		Part N ^o .	Weight	
			lb	kg
<i>Thin Wall Rod Pin</i>	<i>Standard Rod Box</i>			
ATW	A	35-65-003	1.45	0.6
ATW	AW	35-65-004	1.48	0.7
ATW	BW	35-65-006	1.60	0.7
ATW	NW	35-65-008	1.90	0.8
BTW	A	35-65-103	2.45	1.1
BTW	AW	35-65-104	3.04	1.4
BTW	BW	35-65-106	3.30	1.5
BTW	NW	35-65-108	3.74	1.7
NTW	AW	35-65-204	6.34	2.9
NTW	BW	35-65-206	5.18	2.4
NTW	NW	35-65-208	4.50	2.0
<i>Thin Wall Rod Pin</i>	<i>W/L Rod Box</i>			
ATW	A W/L	35-65-024	0.91	0.4
ATW	B W/L	35-65-026	2.00	0.9
BTW	A W/L	35-65-124	2.10	1.0
BTW	B W/L	35-65-126	1.34	0.6
NTW	A W/L	35-65-224	5.23	2.3
NTW	B W/L	35-65-226	4.83	2.2
NTW	N W/L	35-65-227	3.09	1.4

DRILL ROD ADAPTORS

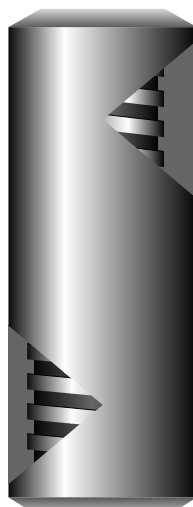


Description		Part N ^o .	Weight	
			lb	kg
<i>W/L Rod Box</i>	<i>Standard Rod Box</i>			
A W/L	A	33-36-003	1.33	0.6
A W/L	AW	33-36-004	1.23	0.5
A W/L	B	33-36-005	1.13	0.5
A W/L	BW	33-36-006	1.03	0.5
A W/L	N	33-36-007	2.40	1.1
A W/L	NW	33-36-008	2.52	1.1
A W/L	HW	33-36-009		
B W/L	A	33-36-103	2.12	1.0
B W/L	AW	33-36-104	2.10	1.0
B W/L	B	33-36-105	2.65	1.2
B W/L	BW	33-36-106	1.98	0.9
B W/L	N	33-36-107	2.42	1.1
B W/L	NW	33-36-108	2.50	1.1
B W/L	HW	33-36-109	2.95	1.3
N W/L	A	33-36-203	5.40	2.5
N W/L	AW	33-36-204	5.23	2.4
N W/L	B	33-36-205	5.00	2.3
N W/L	BW	33-36-206	4.48	2.0
N W/L	N	33-36-207	3.29	1.5
N W/L	NW	33-36-208	3.00	1.4
N W/L	HW	33-36-209	2.80	1.3
H W/L	A	33-36-303	6.65	3.0
H W/L	AW	33-36-304	6.19	2.8
H W/L	B	33-36-305	5.12	2.3
H W/L	BW	33-36-306	4.95	2.3
H W/L	N	33-36-307	3.22	1.5
H W/L	NW	33-36-308	3.20	1.5
H W/L	HW	33-36-309	3.10	1.4



Description		Part N ^o .	Weight	
			lb	kg
<i>Thin Wall Rod Box</i>	<i>Standard Rod Box</i>			
ATW	A	33-65-003	1.00	0.5
ATW	AW	33-65-004	0.97	0.4
ATW	BW	33-65-006	1.55	0.7
ATW	NW	33-65-008	3.10	1.4
BTW	A	33-65-103	1.21	0.5
BTW	AW	33-65-104	1.29	0.6
BTW	BW	33-65-106	1.15	0.5
BTW	NW	33-65-108	2.19	1.0
NTW	AW	33-65-204	3.47	1.6
NTW	BW	33-65-206	3.19	1.4
NTW	NW	33-65-208	2.85	1.3
<i>Thin Wall Rod Box</i>	<i>W/L Rod Box</i>			
ATW	A W/L	33-65-024	0.97	0.4
ATW	B W/L	33-65-026	1.46	0.7
BTW	A W/L	33-65-124	1.90	0.9
BTW	B W/L	33-65-126	1.85	0.8
NTW	A W/L	33-65-224	3.65	1.7
NTW	B W/L	33-65-226	3.41	1.5
NTW	N W/L	33-65-228	3.18	1.4

DRILL ROD ADAPTORS



Description		Part N ^o .	Weight	
			lb	kg
<i>Standard Rod Box</i>	<i>Standard Rod Box</i>			
A	AW	35-00-300	1.46	0.7
A	B	35-00-301	1.57	0.7
A	BW	35-00-302	1.86	0.8
A	N	35-00-303	3.12	1.4
A	NW	35-00-304	3.22	1.5
AW	B	35-00-400	1.42	0.6
AW	BW	35-00-401	1.57	0.7
AW	N	35-00-402	2.80	1.3
AW	NW	35-00-403	2.85	1.3
AW	HW	35-00-404	3.79	1.7
B	BW	35-00-500	1.39	0.63
B	N	35-00-501	2.10	0.9
BW	N	35-00-600	2.20	1.0
BW	NW	35-00-601	2.46	1.1
BW	HW	35-00-602	3.46	1.6
N	NW	35-00-700	3.26	1.5
N	HW	35-00-701	3.95	1.8
NW	HW	35-00-800	4.45	2.0

DRILL ROD ADAPTORS



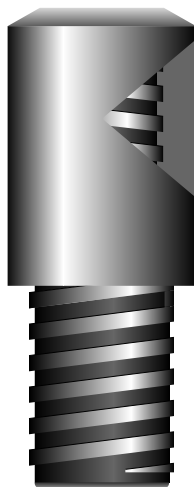
Description		Part N ^o .	Weight	
			lb	kg
<i>W/L Rod Box</i>	<i>Standard Rod Pin</i>			
A W/L	A	32-36-003	1.45	0.6
A W/L	AW	32-36-004	1.45	0.6
A W/L	B	32-36-005	1.60	0.7
A W/L	BW	32-36-006	1.65	0.7
A W/L	N	32-36-007	2.50	1.1
A W/L	NW	32-36-008	2.55	1.1
A W/L	HW	32-36-009	4.10	1.9
B W/L	A	32-36-103	2.45	1.1
B W/L	AW	32-36-104	2.45	1.1
B W/L	B	32-36-105	2.33	1.0
B W/L	BW	32-36-106	2.46	1.1
B W/L	N	32-36-107	2.86	1.3
B W/L	NW	32-36-108	3.65	1.6
B W/L	HW	32-36-109	4.51	2.1
N W/L	A	32-36-203	3.85	1.7
N W/L	AW	32-36-204	3.79	1.7
N W/L	B	32-36-205	3.45	1.6
N W/L	BW	32-36-206	4.05	1.8
N W/L	N	32-36-207	3.56	1.6
N W/L	NW	32-36-208	3.59	1.6
N W/L	HW	32-36-209	3.80	1.7
H W/L	A	32-36-303	6.76	3.1
H W/L	AW	32-36-304	6.76	3.1
H W/L	B	32-36-305	6.40	2.9
H W/L	BW	32-36-306	6.37	2.9
H W/L	N	32-36-307	6.12	2.7
H W/L	NW	32-36-308	6.12	2.7
H W/L	HW	32-36-309	6.00	2.7
<i>W/L Rod Box</i>	<i>W/L Rod Pin</i>			
N W/L	HWL	32-37-210	8.10	3.6
H W/L	HWL	32-37-310	8.60	3.9

DRILL ROD ADAPTORS



Description		Part N ^o .	Weight	
			lb	kg
<i>Thin Wall Rod Box</i>	<i>Standard Rod Pin</i>			
ATW	A	32-65-003	1.30	0.6
ATW	AW	32-65-004	1.50	0.7
ATW	BW	32-65-006	1.80	0.8
ATW	NW	32-65-008	2.00	0.9
BTW	A	32-65-103	2.45	1.1
BTW	AW	32-65-104	2.58	1.2
BTW	BW	32-65-106	2.67	1.2
BTW	NW	32-65-108	2.80	1.3
NTW	AW	32-65-204	3.39	1.5
NTW	BW	32-65-206	3.14	1.4
NTW	NW	32-65-208	3.59	1.6
<i>Thin Wall Rod Box</i>	<i>W/L Rod Pin</i>			
ATW	A W/L	32-65-024	1.30	0.6
ATW	B W/L	32-65-026	1.80	0.8
BTW	A W/L	32-65-124	2.40	1.1
BTW	B W/L	32-65-126	1.00	0.4
NTW	A W/L	32-65-224	3.40	1.5
NTW	B W/L	32-65-226	3.15	1.4
NTW	N W/L	32-65-227	6.09	2.8

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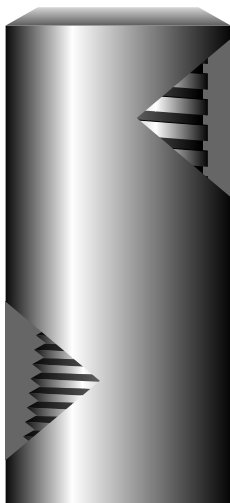


Description		Part N°.	Weight	
			lb	kg
<i>Standard Rod Box</i>	<i>Standard Rod Pin</i>			
A	AW	34-00-300	2.00	0.9
A	B	34-00-301	2.50	1.3
A	BW	34-00-302	2.73	1.2
A	N	34-00-303	3.62	1.6
A	NW	34-00-304	5.25	2.4
AW	B	34-00-400	2.50	1.1
AW	BW	34-00-401	2.73	1.2
AW	N	34-00-402	3.62	1.6
AW	NW	34-00-403	4.00	1.8
AW	HW	34-00-404	5.25	2.4
B	BW	34-00-500	2.80	1.3
B	N	34-00-501	3.00	1.4
BW	N	34-00-600	3.59	1.6
BW	NW	34-00-601	4.59	2.1
BW	HW	34-00-602	5.00	2.2
N	NW	34-00-700	4.62	2.1
N	HW	34-00-701	5.00	2.2
NW	HW	34-00-800	8.36	3.8

DRILL ROD ADAPTORS

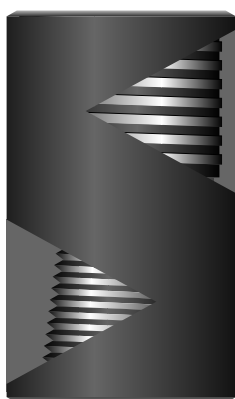


Description		Part N°.	Weight	
			lb	kg
<i>Standard Rod Pin</i>	<i>Standard Rod Box</i>			
A	AW	33-00-300	1.48	0.7
A	B	33-00-301	1.60	0.7
A	BW	33-00-302	1.70	0.8
A	N	33-00-303	1.80	0.8
A	NW	33-00-304	1.90	0.9
A	HW	33-00-305	2.00	0.9
AW	B	33-00-400	2.46	1.1
AW	BW	33-00-401	2.80	1.3
AW	N	33-00-402	3.20	1.4
AW	NW	33-00-403	3.80	1.7
AW	HW	33-00-404	4.18	1.9
B	BW	33-00-500	2.21	1.0
B	N	33-00-501	2.86	1.3
B	NW	33-00-502	3.74	1.7
BW	N	33-00-600	2.86	1.3
BW	NW	33-00-601	3.30	1.5
BW	HW	33-00-602	3.74	1.7
N	NW	33-00-700	3.09	1.4
N	HW	33-00-701	3.50	1.6
NW	HW	33-00-800	3.80	1.7

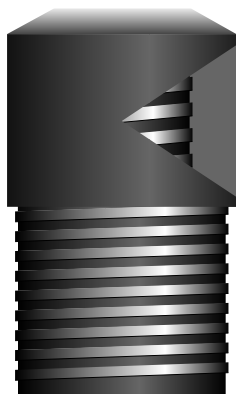


Description		Part N°.	Weight	
			lb	kg
<i>Rod Box</i>	<i>A.P.I. Regular Box</i>			
NW	2 3/8	80-50-302	13.05	5.9
NW	2 7/8	80-50-304	16.00	7.3
NW	3 1/2	80-50-305	21.00	9.5
N W/L	2 3/8	80-50-306	7.30	3.3
N W/L	2 7/8	80-50-307	7.30	3.3
H W/L	2 3/8	80-50-308	9.25	4.2
H W/L	2 7/8	80-50-313	9.25	4.2
H W/L	3 1/2	80-50-314	11.35	5.1

A.P.I. ADAPTORS

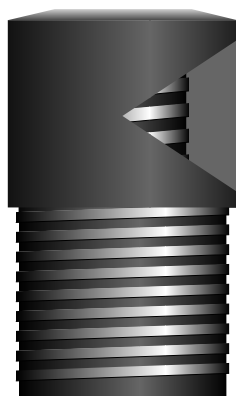


Description		Part N°.	Weight	
			lb	kg
<i>Casing Box</i>	<i>A.P.I. Regular Box</i>			
NW	2 3/8	80-50-203	9.45	4.3
HW	2 7/8	80-50-204	15.55	7.1
BW	2 3/8	80-50-205	8.70	3.9
NW	2 7/8	80-50-206	10.30	4.7
NW	3 1/2	80-50-207	12.40	5.6
HW	2 3/8	80-50-210	15.10	6.8



Description		Part N°.	Weight	
			lb	kg
<i>Standard Rod Box</i>	<i>W Casing Pin</i>			
A	AW	21-10-300	3.17	1.4
A	BW	21-10-301	6.79	3.0
A	NW	21-10-302	11.60	5.3
A	HW	21-10-303	19.35	8.8
AW	AW	21-10-400	1.20	0.5
AW	BW	21-10-401	6.34	2.8
AW	NW	21-10-402	11.10	5.0
AW	HW	21-10-403	13.20	6.0
BW	BW	21-10-600	5.60	2.5
BW	NW	21-10-601	10.15	4.6
BW	HW	21-10-602	18.35	8.3
BW	PW	21-10-603	25.20	11.4
NW	NW	21-10-800	9.25	4.2
NW	HW	21-10-801	18.55	8.4
NW	PW	21-10-802	26.30	11.9
HW	NW	21-10-899	6.30	2.8
HW	HW	21-10-900	13.70	6.2
HW	PW	21-10-901	27.55	12.5
HW	SW	21-10-902	35.50	16.1

CASING ADAPTORS

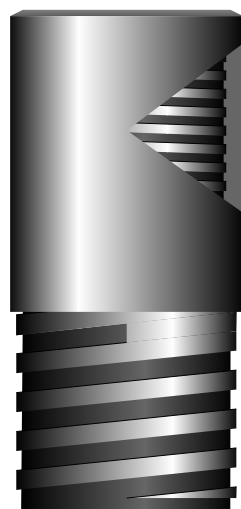


Description		Part N°.	Weight	
			lb	kg
<i>W/L Rod Box</i>	<i>W Casing Pin</i>			
A W/L	AW	22-10-100	3.15	1.4
B W/L	AW	22-10-101	4.40	2.0
B W/L	BW	22-10-200	4.45	2.0
B W/L	NW	22-10-201	8.50	3.9
N W/L	BW	22-10-290	2.08	0.9
N W/L	NW	22-10-300	6.65	3.0
N W/L	HW	22-10-301	17.20	7.8
H W/L	NW	22-10-400	3.00	1.4
HWL	NW	22-10-401	3.45	1.6
H W/L	HW	22-10-501	12.35	5.6
HWL	HW	22-10-502	6.10	2.7
HW W/L	HW	22-10-503	4.50	2.0
P W/L	HW	22-10-510	5.00	2.2
H W/L	PW	22-10-600	25.70	11.7
HWL	PW	22-10-601	14.00	6.3
P W/L	PW	22-10-602	14.70	6.7
HW W/L	PW	22-10-603	14.80	6.7
<i>Thin Wall Rod Box</i>	<i>W Casing Pin</i>			
ATW	AW	22-65-100	2.83	1.3
ATW	BW	22-65-101	4.51	2.0
BTW	BW	22-65-200	3.83	1.7
BTW	NW	22-65-201	8.30	3.7
NTW	NW	22-65-300	5.71	2.6
NTW	HW	22-65-301	16.50	7.5

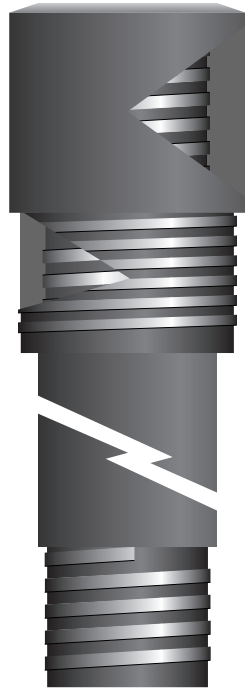


Description		Part N ^o .	Weight	
<i>W Casing Pin</i>	<i>Pipe Pin</i>		lb	kg
AW	2.0"	23-10-200	1.59	0.7
BW	2.5"	23-10-300	2.53	1.2
NW	3.0"	23-10-400	3.21	1.5
HW	4.0"	23-10-500	4.10	1.8

CASING ADAPTORS



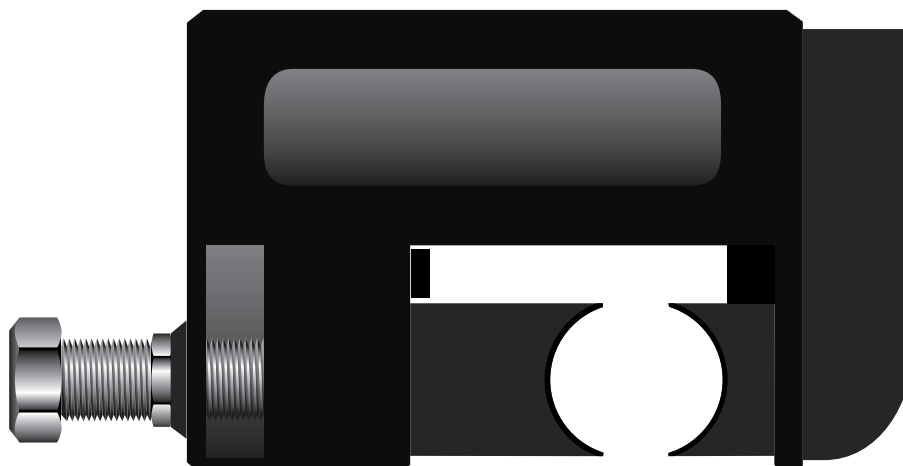
Description		Part N ^o .	Weight	
<i>W/L Rod Pin</i>	<i>Casing Box</i>		lb	kg
N W/L	BW	22-11-400	2.34	1.1
H W/L	NW	22-11-501	2.73	1.2
P W/L	HW	22-11-601	5.09	2.3



Description	Part N ^o .	Weight	
		lb	kg
B W/L Size			
B W/L rod box-box to			
BW Casing Pin	29-90-312	4.18	1.9
Extensions			
B W/L rod pin-pin 5 5/8" (standard)	29-95-310	2.39	1.1
B W/L rod pin-pin 3 13/16" (metric)	29-95-311	1.79	0.8
N W/L Size			
N W/L rod box-box to			
NW Casing Pin	29-95-412	6.28	2.9
Extensions			
N W/L rod pin-pin 13 3/4" (standard)	29-95-410	6.56	2.9
N W/L rod pin-pin 11 7/8" (metric)	29-95-411	5.73	2.6
H W/L Size			
H W/L rod box-box to			
HW Casing Pin	29-95-512	12.00	5.5
Extensions			
H W/L rod pin-pin 8 1/2" (standard)	29-95-510	6.41	2.9
H W/L rod pin-pin 6 5/8" (metric)	29-95-511	5.33	2.4
Thin Wall			
BTW Size			
BTW rod box-box to			
BW Casing Pin	29-90-314	3.54	1.6
Extensions			
BTW rod pin-pin (standard)	29-95-312	2.81	1.3
BTW rod pin-pin (metric)	29-95-313	2.60	1.2
NTW Size			
NTW rod box-box to			
NW Casing Pin	29-90-414	5.34	2.4
Extensions			
NTW rod pin-pin (standard)	29-95-413	6.78	3.0
NTW rod pin-pin (metric)	29-95-414	4.39	1.9

DRILL ROD HOLDER

Description	Part N ^o .	Weight	
		lb	kg
Drill Rod Holder			
B W/L, N W/L, H W/L	26-30-300	19.00	8.6



D1789 - Revision: 01



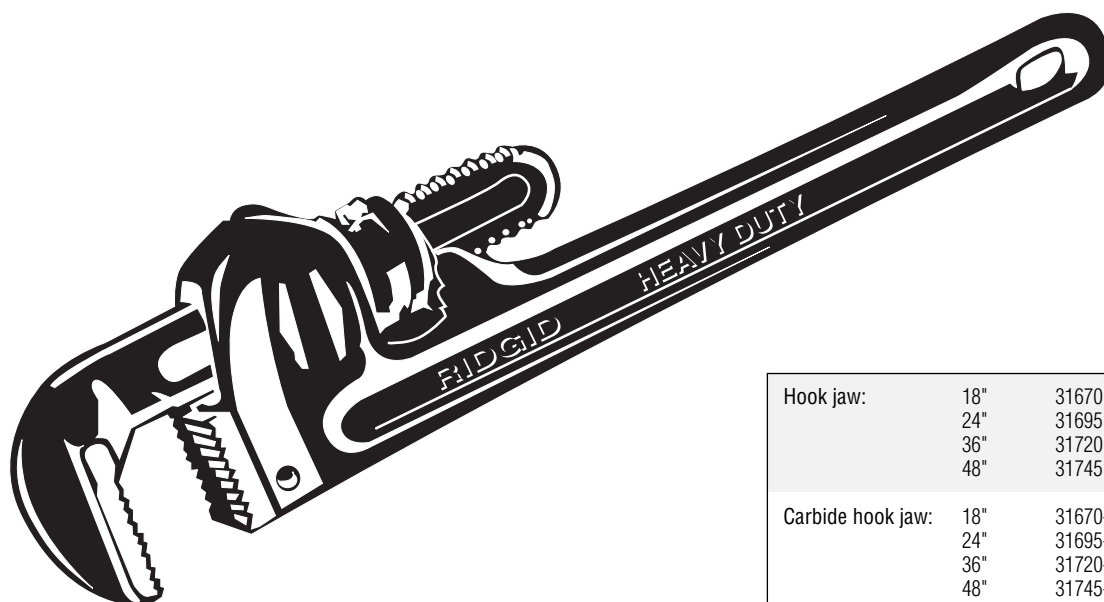
Description	Part N°.	Weight	
		lb	kg
AW	29-10-200	1.39	0.6
BW	29-10-300	1.79	0.8
NW	29-10-400	2.53	1.2
HW	29-10-500	3.78	1.7
PW	29-10-600	5.68	2.6

CASING CAPS



Description	Part Nº.	Weight	
		lb	kg
Steel Caps			
AW	26-10-200	1.28	0.6
BW	26-10-300	2.34	1.1
NW	26-10-400	2.95	1.3
HW	26-10-500	4.08	1.9
Aluminum Caps			
AW	27-10-200	1.50	0.7
BW	27-10-300	1.78	0.8
NW	27-10-400	2.67	1.2
HW	27-10-500	3.80	1.7

Description	Part N ^o .	Weight	
		lb	kg
18" Pipe Wrench	31025	5.79	2.6
18" Pipe Wrench - Carbide Jaws	31025-C	5.79	2.6
18" Pipe Wrench - Aluminum	31100	3.50	1.6
24" Pipe Wrench	31030	9.55	4.3
24" Pipe Wrench - Carbide Jaws	31030-C	9.55	4.3
36" Pipe Wrench	31035	19.65	8.9
36" Pipe Wrench - Carbide Jaws	31035-C	19.65	8.9
36" Pipe Wrench - Aluminum	31110	10.50	4.8
48" Pipe Wrench - Aluminum	31115	18.60	8.4
48" Pipe Wrench	31040	30.50	13.8



Hook jaw:	18"	31670
	24"	31695
	36"	31720
	48"	31745
Carbide hook jaw:	18"	31670-C
	24"	31695-C
	36"	31720-C
	48"	31745-C
Heel jaw:	18"	31675
	24"	31700
	36"	31725
	48"	31750
Carbide heel jaw:	18"	31675-C
	24"	31700-C
	36"	31725-C
	48"	31750-C
Coil and spring assembly:	18"	31680
	24"	31705
	36"	31730
	48"	31755
Pipe wrench nut:	18"	31685
	24"	31710
	36"	31735
	48"	31760

High Speed Water Swivel (W/L): E-2

High Speed Water Swivel (Thin Wall): E-3

Compact Water Swivel: E-4

Compact Plus Water Swivel: E-5

Universal Water Swivel: E-6

Running Bail: E-7

Pressure Relief Valve: E-8

Water Hoses: E-9

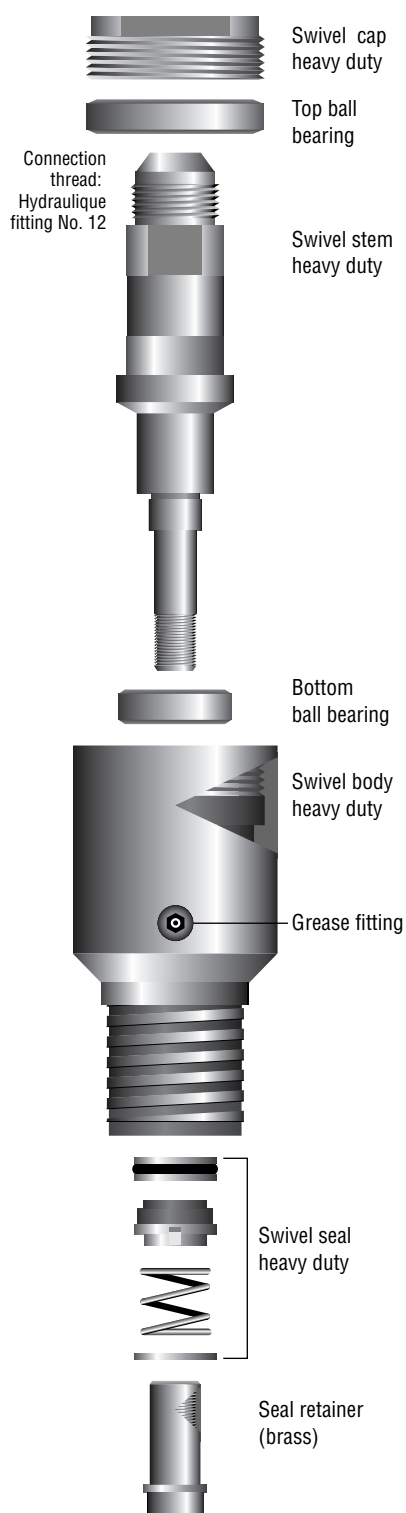
Note: For Gauge 0-2000, please refer to the Pump-Out Assembly on page A-33 of the Wireline Core Barrel Section.

ASSEMBLY

Description	Part N°.	Weight	
		lb	kg
High Speed Water Swivel Assy			
A W/L	70-07-000-B	4.37	2.0
B W/L	70-08-000-B	6.43	2.9
N W/L	70-09-000-B	7.97	3.6

Repair Kits

High Speed (A W/L)	70-07-200	~	~
- Top ball bearing (1)			
- Bottom ball bearing (1)			
- Swivel seal (1)			
High Speed (B W/L, N W/L)	70-69-025	~	~
- Top ball bearing (1)			
- Bottom ball bearing (1)			
- Swivel seal (1)			



A W/L, B W/L, N W/L

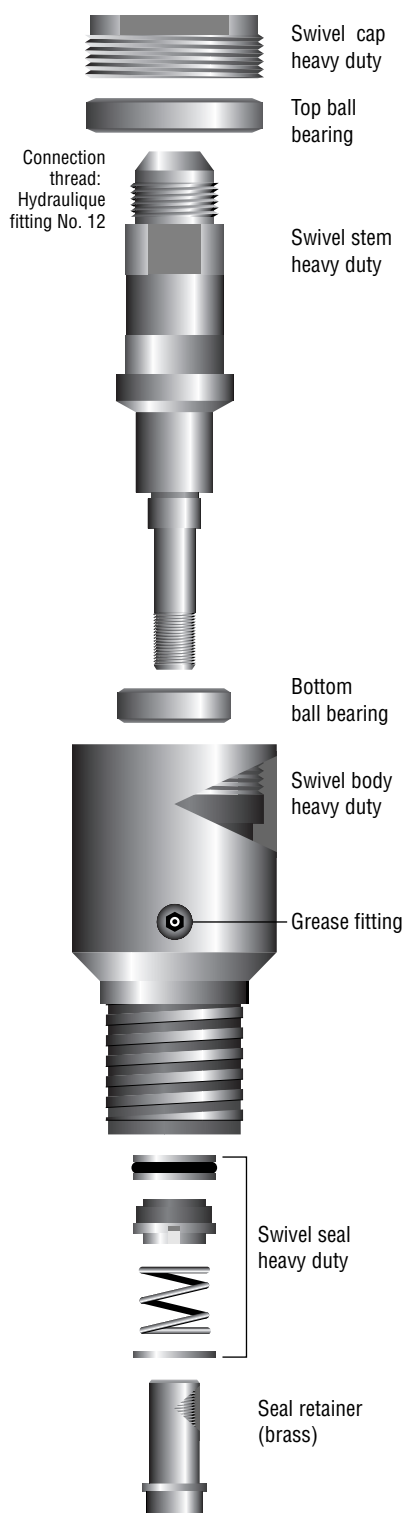
Swivel cap:	All sizes:	70-07-001
Top ball bearing:	All sizes:	70-07-002
Swivel stem:	A W/L:	70-07-003-B
	B W/L:	70-08-003-B
	N W/L:	70-08-003-B
Bottom ball bearing:	A W/L:	70-06-004
	B W/L:	70-08-004
	N W/L:	70-08-004
Swivel body:	A W/L:	70-07-005
	B W/L:	70-08-005
	N W/L:	70-09-005
Grease fitting:	All sizes:	12-21-220
Swivel seal:	A W/L:	70-07-006
	B W/L:	70-08-006-B
	N W/L:	70-08-006-B
Seal retainer:	A W/L:	70-07-007
	B W/L:	70-08-007-B
	N W/L:	70-08-007-B

ASSEMBLY

Description	Part N°.	Weight	
		lb	kg
Thin Wall High Speed Water Swivel Assy			
ATW	70-67-000	2.61	1.2
BTW	70-68-000	5.06	2.3
NTW	70-69-000	8.52	3.8

Repair Kits

High Speed (ATW, BTW)	70-07-200	~	~
- Top ball bearing (1)			
- Bottom ball bearing (1)			
- Swivel seal (1)			
High Speed (NTW)	70-69-025	~	~
- Top ball bearing (1)			
- Bottom ball bearing (1)			
- Swivel seal (1)			



ATW, BTW, NTW

Swivel cap:	All sizes:	70-07-001
Top ball bearing:	All sizes:	70-07-002
Swivel stem:	ATW:	70-07-003-B
	BTW:	70-07-003-B
	NTW:	70-08-003-B
Bottom ball bearing:	ATW:	70-06-004
	BTW:	70-06-004
	NTW:	70-08-004
Swivel body:	ATW:	70-67-001
	BTW:	70-68-001
	NTW:	70-69-001
Grease fitting:	All sizes:	12-21-220
Swivel seal:	ATW:	70-07-006
	BTW:	70-07-006
	NTW:	70-08-006-B
Seal retainer:	ATW:	70-07-007
	BTW:	70-07-007
	NTW:	70-08-007-B

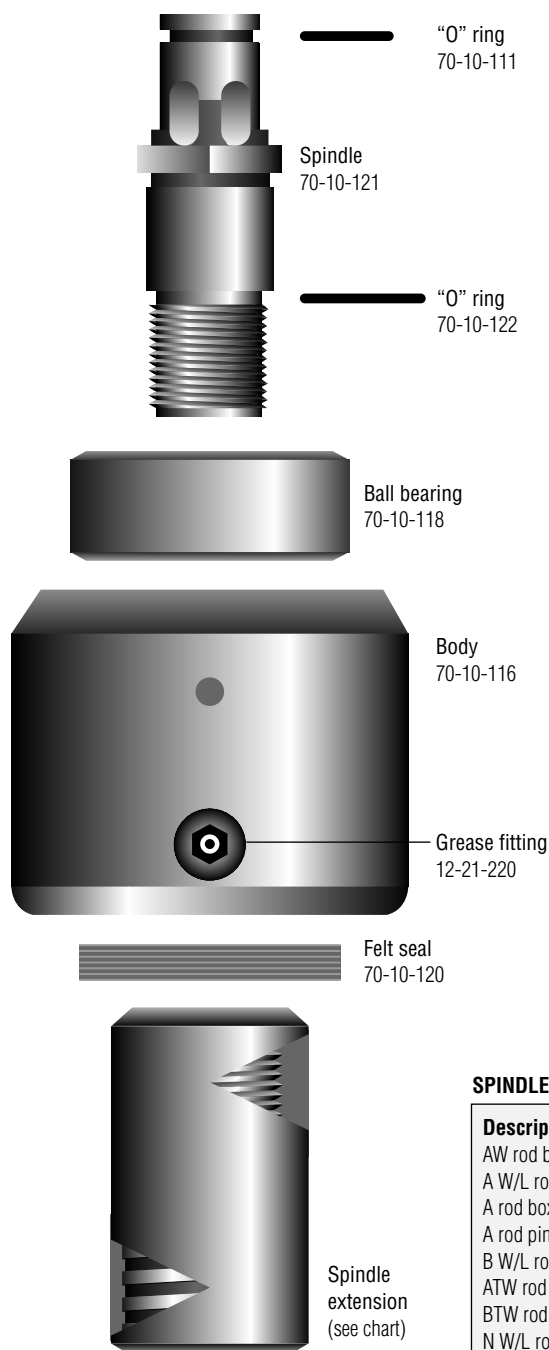
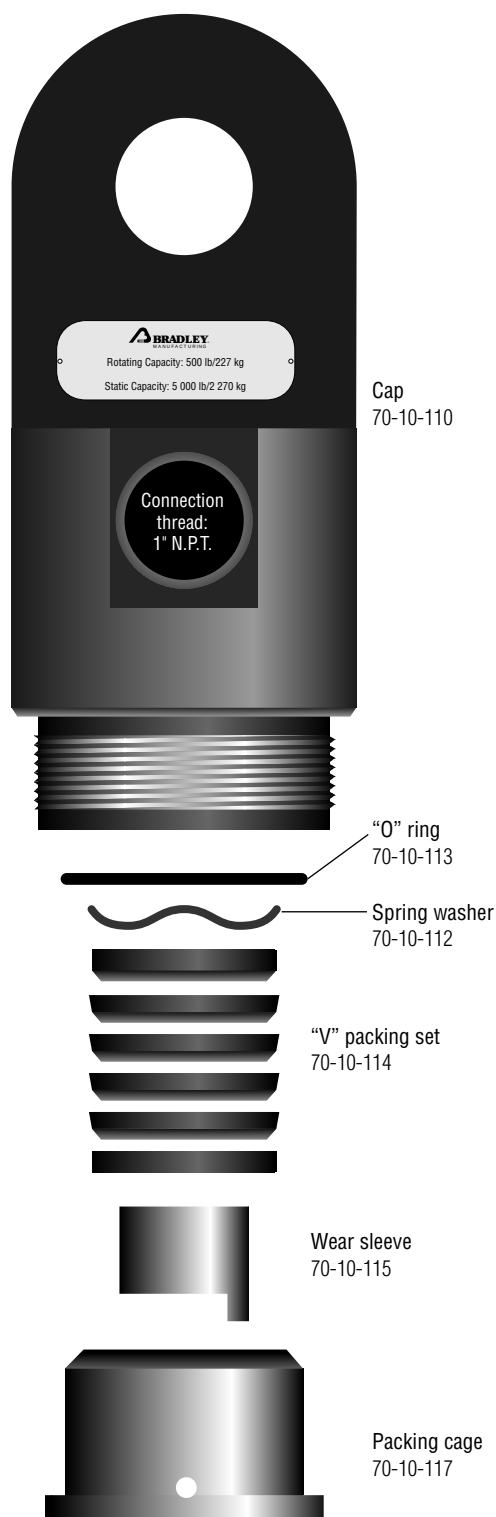
ASSEMBLY

Description	Part N ^o .	Weight	
		lb	kg
Compact Water Swivel Assy			
AW Rod Box	70-10-100	14.50	6.6

Rotating Capacity: 500 lbs / 227 kg
 Static Capacity: 5 000 lbs / 2 270 kg

Repair Kit

Compact	70-10-150	1.75	0.8
- "O" Rings -3 sizes (6 of each size)			
- Spring washer (2)			
- "V" packing set (2)			
- Wear sleeve (2)			
- Ball bearing (1)			
- Felt seal (2)			



SPINDLE EXTENSIONS

Description	Part N ^o .
AW rod box	70-11-123
A W/L rod pin	70-10-124
A rod box	70-10-125
A rod pin	70-10-126
B W/L rod pin	70-10-127
ATW rod pin	70-10-128
BTW rod pin	70-10-129
N W/L rod pin	70-10-130

L1479 - Revision: 00

ASSEMBLY

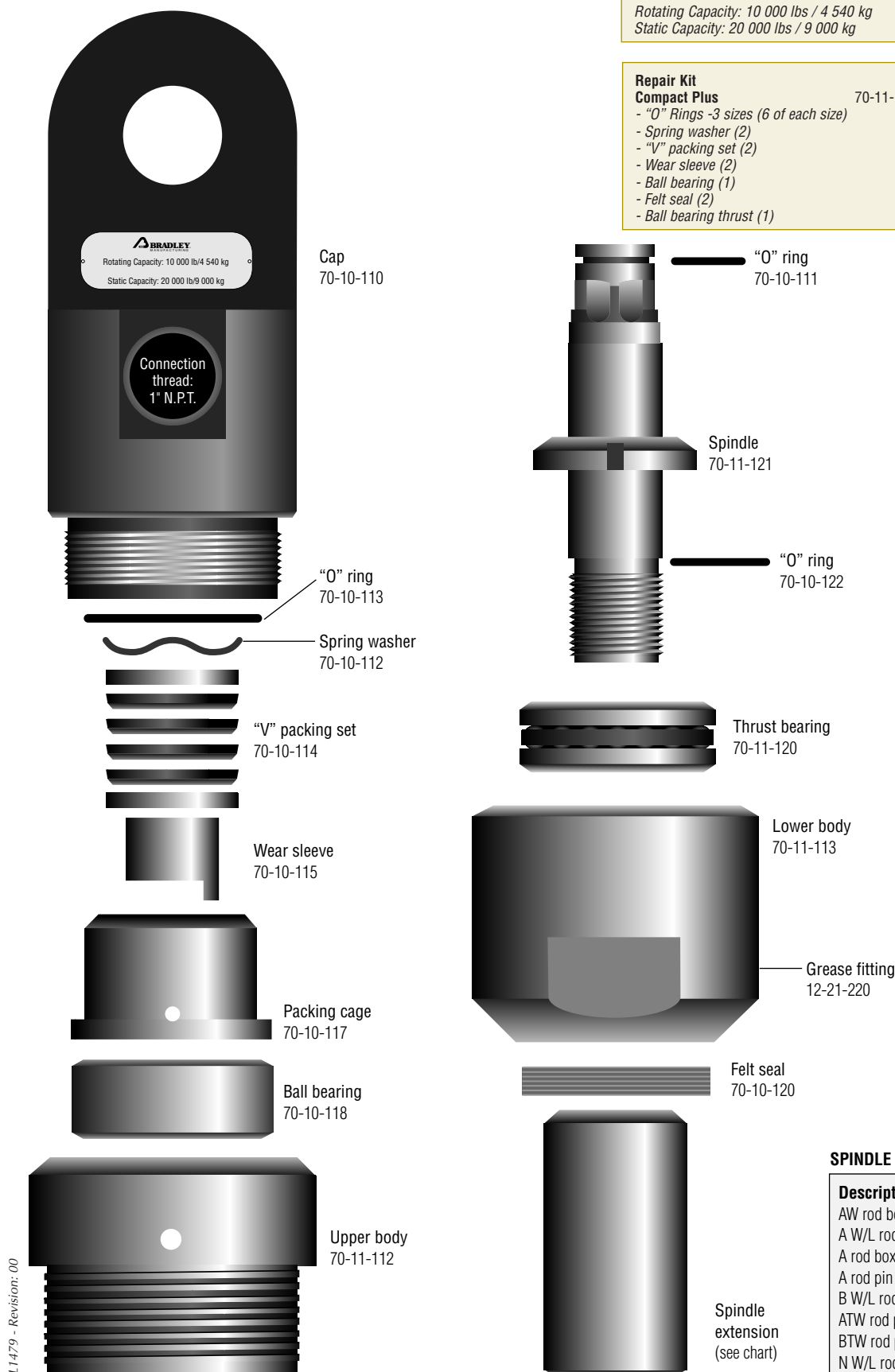
Description	Part N ^o .	Weight	
		lb	kg
Compact Plus Water Swivel Assy			
AW Rod Box	70-11-100	16.70	7.6

Rotating Capacity: 10 000 lbs / 4 540 kg
 Static Capacity: 20 000 lbs / 9 000 kg

Repair Kit

Compact Plus

	70-11-150	~	~
- "O" Rings -3 sizes (6 of each size)			
- Spring washer (2)			
- "V" packing set (2)			
- Wear sleeve (2)			
- Ball bearing (1)			
- Felt seal (2)			
- Ball bearing thrust (1)			



ACCESSORY



Spindle wrench
70-11-151

SPINDLE EXTENSIONS

Description	Part N ^o .
AW rod box	70-11-123
A W/L rod pin	70-10-124
A rod box	70-10-125
A rod pin	70-10-126
B W/L rod pin	70-10-127
ATW rod pin	70-10-128
BTW rod pin	70-10-129
N W/L rod pin	70-10-130

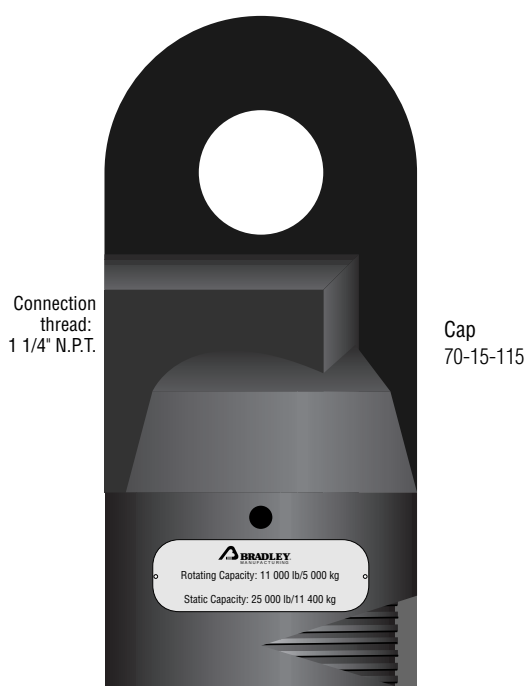
ASSEMBLY

Description	Part N ^o .	Weight	
		lb	kg
Universal Water Swivel Assy			
BW Rod Box	70-15-100	31.50	14.3

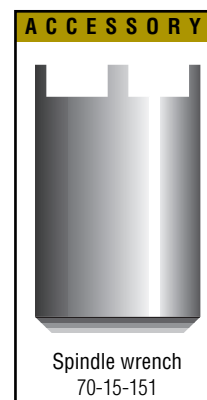
Rotating Capacity: 11 000 lbs / 5 000 kg
 Static Capacity: 25 000 lbs / 11 400 kg

Repair Kit Universal

70-15-150	~	~
- Ball bearing (1) - Internal retaining ring (1) - "O" Ring (1) - Spindle extension (1) - "V" packing set (1) - Locking washer (1) - Ball bearing thrust (1)		



Spindle extension
70-15-116



Spindle wrench
70-15-151



Compression spring
70-15-114



"V" packing set
70-15-117



"O" ring
70-15-113



Packing housing
70-15-118



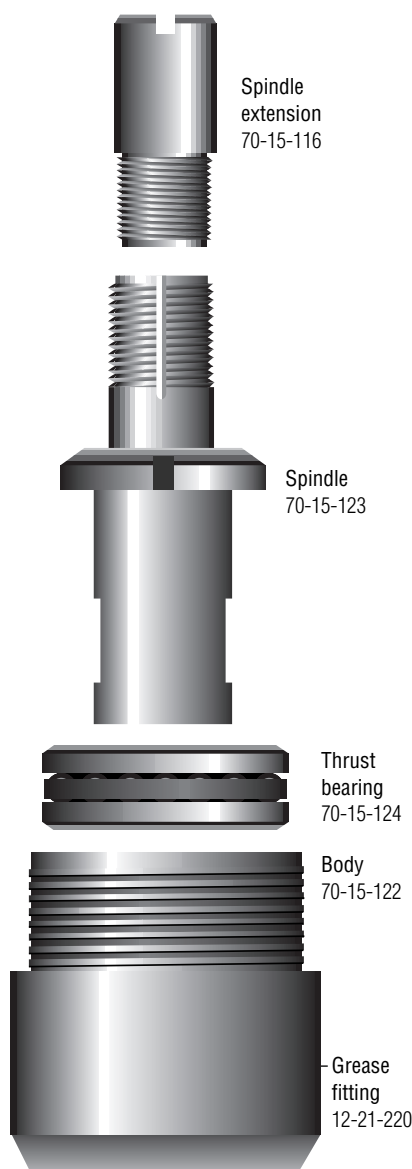
Spindle nut
70-15-119



Locking washer
70-15-120



Spacer
70-15-121



Spindle
70-15-123

Thrust bearing
70-15-124

Body
70-15-122

Grease fitting
12-21-220

ROD ADAPTORS

W/L Rod Pin	Standard Rod Pin	Part N ^o .
A W/L	BW	34-36-006
B W/L	BW	34-36-106
N W/L	BW	34-36-206
H W/L	BW	34-36-306
P W/L	BW	34-36-406
HW W/L	BW	34-36-407
Thin Wall Rod Pin	Standard Rod Pin	Part N ^o .
ATW	BW	34-65-006
BTW	BW	34-65-106
NTW	BW	34-65-206

L1479 - Revision: 00

ASSEMBLY

Description	Part N°.	Weight	
		lb	kg
Running Bail Assy	64-00-490	66.50	30.2

Rotating Capacity: 30 000 lb / 13 620 kg
 Static Capacity: 40 000 lb / 18 160 kg

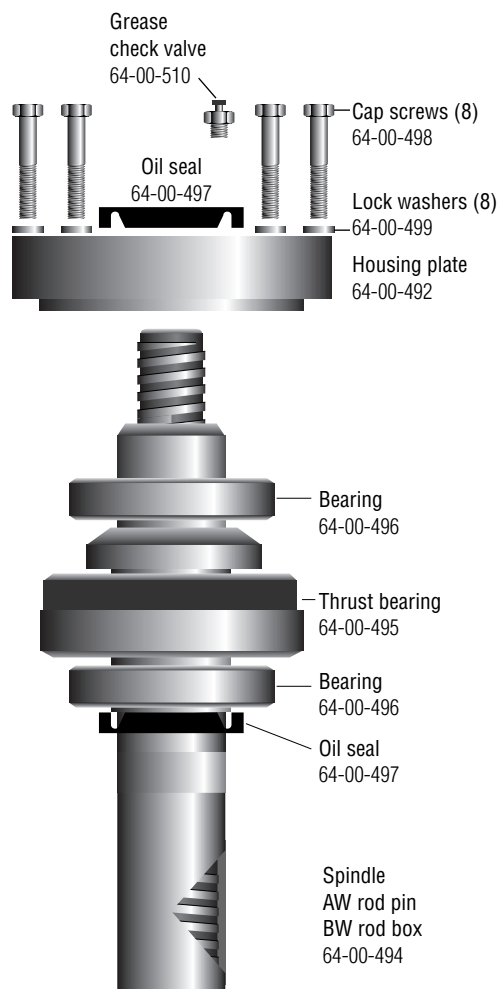
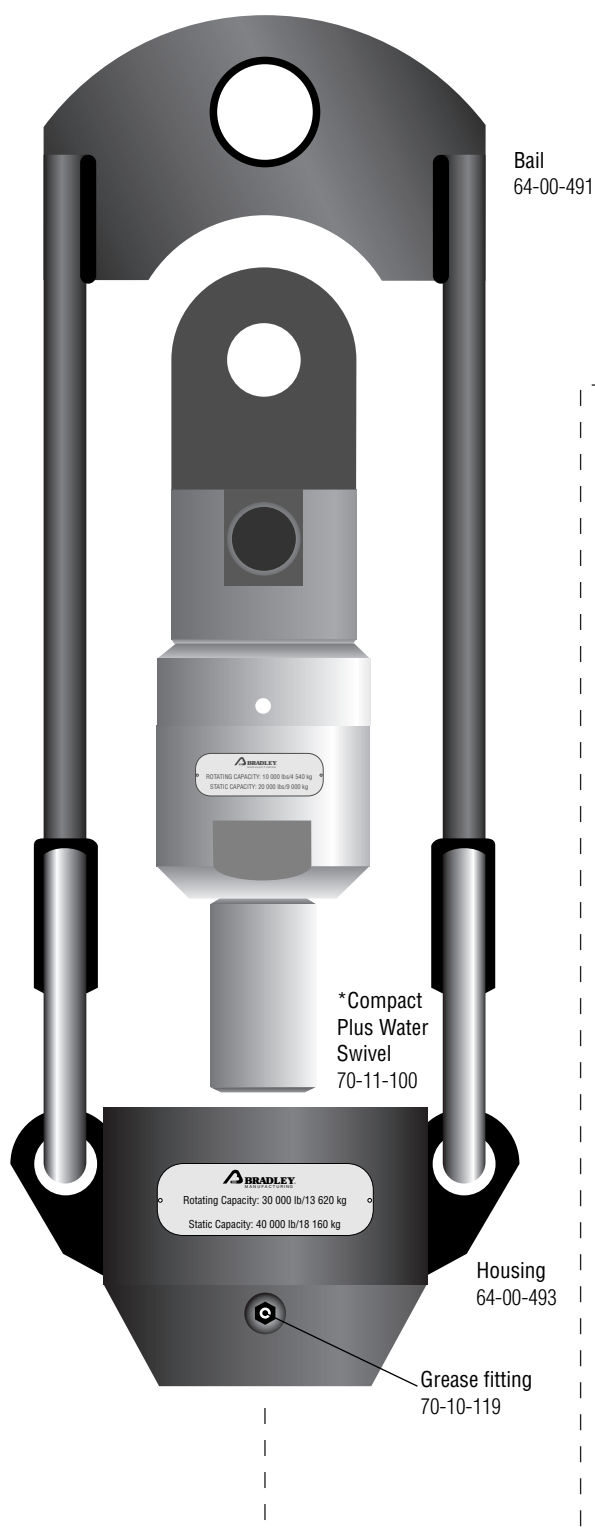
**The Water Swivel is not included in the Running Bail Assembly. This product must be purchased separately.*

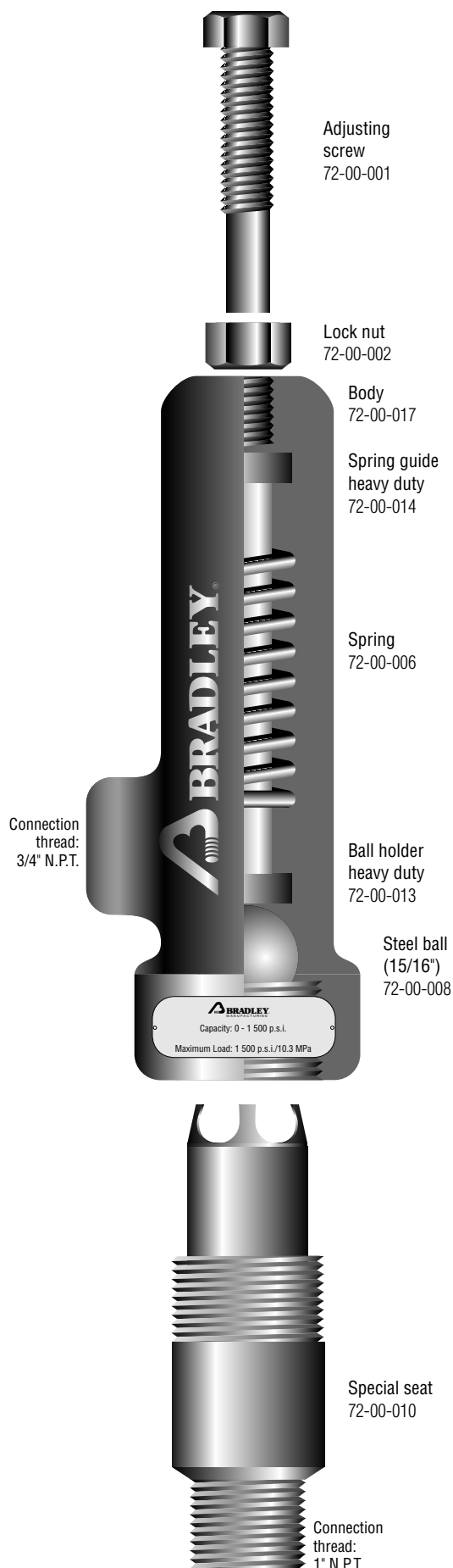
CASING ADAPTORS

W/L Rod Pin	Casing Pin	Part N°.
BW	BW	21-11-700
BW	NW	21-11-701
BW	HW	21-11-702
BW	PW	21-11-703

ROD ADAPTORS

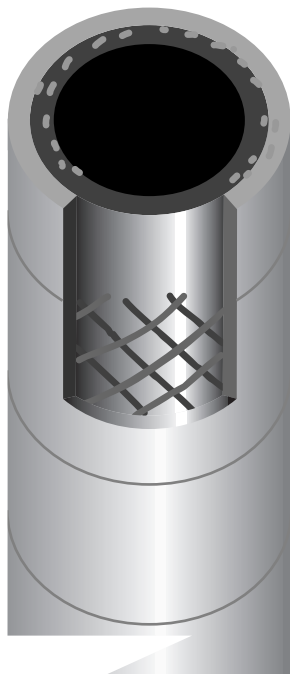
W/L Rod Pin	Standard Rod Pin	Part N°.
N W/L	BW	34-36-206
H W/L	BW	34-36-306
P W/L	BW	34-36-406
HW W/L	BW	34-36-407





ASSEMBLY

Description	Part N°.	Weight	
		lb	kg
Relief Valve Assy Capacity: 0 - 800 p.s.i. Maximum Load: 800 p.s.i. / 5.5 MPa	72-00-016	7.50	3.4
Relief Valve Assy H.D. Capacity: 0 - 1100 p.s.i. Maximum Load: 0 - 1100 p.s.i. / 7.8 MPa	72-00-018	7.50	3.4



WATER HOSES AND ACCESSORIES

Description	Size	Part No.
Polyethylene pipe	1" X 100'	70-00-060
Nylon coupling	1"	70-00-061
Hose clamp		70-00-062
Hose nipple grooved 1 end	3/4"	71-00-040
Hose nipple grooved 2 ends	3/4"	71-00-041
Hose comes with chicago plug	3/4" X 100'	70-00-015
Hose comes with chicago plug	1" X 100'	70-00-016
Chicago plug	1"	71-00-050
Rubber for chicago plug	1"	71-00-051

WATER SWIVEL HOSES



WATER SWIVEL HOSE

Description	Size		Part No.
	Standard	Metric	
Water swivel hose	3/4" X 40'	19mm X 12m	70-00-014
Water swivel hose	1 1/4" X 40'	32mm X 12m	70-00-021

SUCTION HOSE AND ACCESSORIES

Description	Size		Part No.
	Standard	Metric	
Cast iron foot valve	1 1/2"	38mm	70-00-051
Cast iron foot valve	2"	51mm	70-00-052
Suction hose	1 1/2" X 15'	38mm X 4.6m	70-00-032
Suction hose	1 1/2" X 20'	38mm X 6m	70-00-033
Suction hose	2" X 15'	51mm X 4.6m	70-00-040
Suction hose	2" X 20'	51mm X 6m	70-00-041
Suction hose	3" X 20'	76mm X 6m	70-00-042

Wireline Rod Tap: F-2

Wireline Rod Full Grip Tap: F-2

Casing Tap: F-3

Standard Bell Tap: F-3

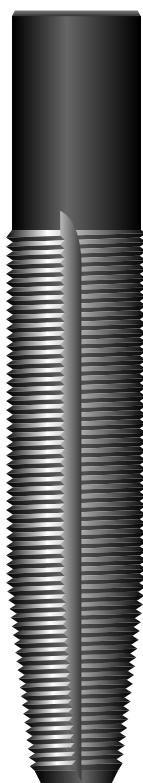
Wireline Rod Bell Tap: F-4

Standard Rod and Coupling Tap: F-4

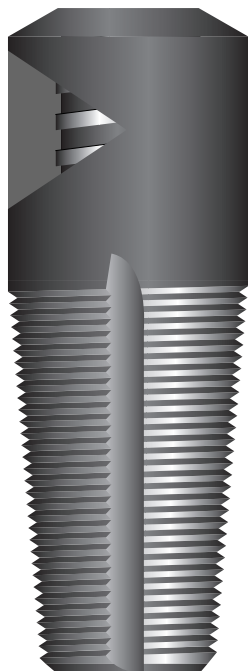
Magnetic Extractor: F-5



Description		Part Nº.	Weight	
			lb	kg
RIGHT HAND TAP				
<i>Rod Size</i>	<i>Connection</i>			
A W/L	A W/L	40-30-200	2.69	1.2
B W/L	B W/L	40-30-300	4.70	1.9
N W/L	N W/L	40-30-400	7.50	3.4
H W/L	H W/L	40-30-500	12.30	5.6
P W/L	P W/L	40-30-600	17.40	7.9
HW W/L	HW W/L	40-30-601	17.40	7.9
HWL	HWL	40-50-500	16.00	7.3
<i>Thin Wall</i>				
ATW	ATW	40-65-200	2.94	1.3
BTW	BTW	40-65-300	4.94	2.3
NTW	NTW	40-65-400	8.28	3.8
LEFT HAND TAP				
<i>Rod Size</i>	<i>Connection (right hand)</i>			
A W/L	A W/L	45-30-200	2.70	1.2
B W/L	B W/L	45-30-300	4.50	2.1
N W/L	N W/L	45-30-400	7.36	3.3
H W/L	H W/L	45-30-500	14.50	6.6
<i>Thin Wall</i>				
ATW	ATW	45-65-200	2.90	1.3
BTW	BTW	45-65-300	4.90	2.2
NTW	NTW	45-65-400	8.20	3.7

WIRELINE ROD FULL GRIP TAP


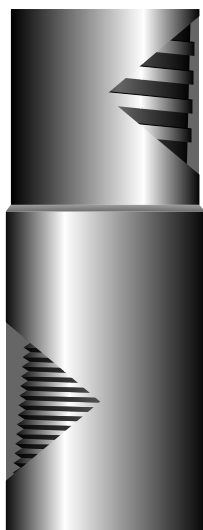
Description		Part Nº.	Weight	
			lb	kg
RIGHT HAND TAP				
<i>Tap Size</i>	<i>Connection</i>			
A W/L	EW	40-31-200	3.03	1.4
B W/L	AW	40-31-300	6.31	2.9
N W/L	BW	40-31-400	11.16	5.1
H W/L	NW	40-31-501	17.55	7.9
<i>Thin Wall</i>				
ATW	EW	40-66-200	1.40	0.6
BTW	AW	40-66-300	6.94	3.2
NTW	BW	40-66-400	18.80	5.4



Description		Part N°.	Weight	
			lb	kg
RIGHT HAND TAP				
Tap Size (Casing)	Connection Rod Box			
EW	EW	41-10-001	3.01	1.8
AW	AW	41-10-002	5.40	2.5
BW	BW	41-10-003	8.50	3.9
NW	NW	41-10-004	11.25	5.1
HW	HW	41-10-005	21.65	9.8
AW	A W/L	41-30-200	6.10	2.7
BW	B W/L	41-30-300	8.15	3.7
NW	N W/L	41-30-400	11.50	5.2
HW	H W/L	41-30-500	22.95	10.4
PW	P W/L	41-30-600	29.80	13.5
PW	HW W/L	41-30-601	29.80	13.5
AW	ATW	41-65-200	6.20	2.8
BW	BTW	41-65-300	8.40	3.8
NW	NTW	41-65-400	11.50	5.2

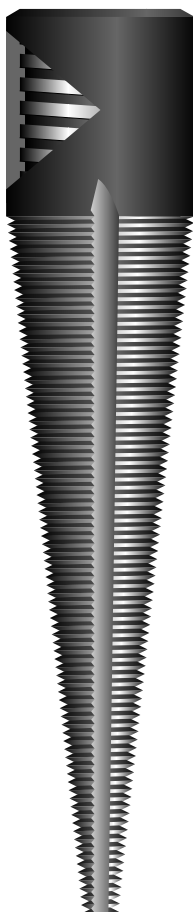
STANDARD ROD BELL TAP


Description		Part N°.	Weight	
			lb	kg
RIGHT HAND TAP				
Tap Size	Connection Rod Box (RH)			
EW	EW	42-10-001	2.60	1.2
AW	AW	42-10-002	3.20	1.5
BW	BW	42-10-003	3.80	1.7
NW	NW	42-10-004	4.44	2.0
HW	HW	42-10-005	6.10	2.8
LEFT HAND TAP				
Tap Size	Connection Rod Box (LH)			
EW	EW	46-10-001	2.60	1.2
AW	AW	46-10-002	3.20	1.5
BW	BW	46-10-003	3.80	1.7
NW	NW	46-10-004	4.40	2.0
HW	HW	46-10-005	6.10	2.8

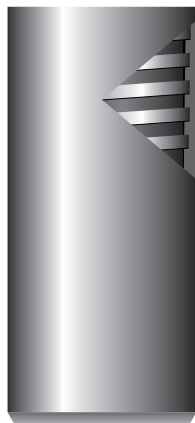


Description	Part Nº.	Weight	
		lb	kg
RIGHT HAND TAP			
<i>Tap Box Size</i>			
A W/L	42-30-200	1.20	0.5
B W/L	42-30-300	1.69	0.8
N W/L	42-30-400	2.66	1.2
H W/L	42-30-500	4.19	1.9
P W/L	42-30-600	9.51	4.3
HWL	42-50-500	4.20	1.9

STANDARD ROD AND COUPLING TAP



Description		Part Nº.	Weight	
			lb	kg
RIGHT HAND TAP				
<i>Tap Box Size</i>	<i>Connection</i>			
EW	EW	40-10-001	1.30	0.6
AW	AW	40-10-002	2.19	0.9
BW	BW	40-10-003	3.89	1.7
NW	NW	40-10-004	6.30	2.9
HW	HW	40-10-005	14.85	6.7
LEFT HAND TAP				
<i>Tap Box Size</i>	<i>Connection (left hand)</i>			
EW	EW	45-10-001	1.30	0.6
AW	AW	45-10-002	2.55	1.2
BW	BW	45-10-003	3.90	1.7
NW	NW	45-10-004	6.30	2.9
HW	HW	45-10-005	14.90	6.7



Description		Part N°.	Weight	
			lb	kg
<i>Tap Size</i>	<i>Connection</i>			
B W/L	B W/L	44-30-002	1.94	0.9
N W/L	N W/L	44-30-003	6.00	2.7
H W/L	H W/L	44-30-004	11.40	5.2
<i>Thin Wall</i>				
NTW	NTW	44-33-003	5.00	2.2

Hoisting Plug 6 000 lb: G-2

Hoisting Plug 13 000 lb: G-3

Hoisting Plug 30 000 lb: G-4

Wireline Cable: G-5

Wireline Cable Accessories: G-6

ASSEMBLY

Description	Part N°.	Weight	
		lb	kg
Hoisting Plug Assy			
AW Rod Box Assy	64-00-200	10.79	4.9

Maximum Capacity: 6 000 lb / 2 724 kg

Repair Kit

Hoisting Plug

	64-00-218	2.61	1.2
- Bearing 6 000 lb (2)			
- Spindle 6 000 lb (1)			
- Cotter pin (1)			



ADAPTORS

W/L Rod Pin	Standard Rod Pin	Part N°.
A W/L	AW	34-36-004
B W/L	AW	34-36-104
N W/L	AW	34-36-204
NM W/L	AW	34-36-210
H W/L	AW	34-36-304
HM W/L	AW	34-36-323
Thin Wall Rod Pin	Standard Rod Pin	Part N°.
ATW	AW	34-65-004
BTW	AW	34-65-104
NTW	AW	34-65-204

*Additional adaptor descriptions and part numbers are listed in the Adaptor section.

L1479 - Revision: 00

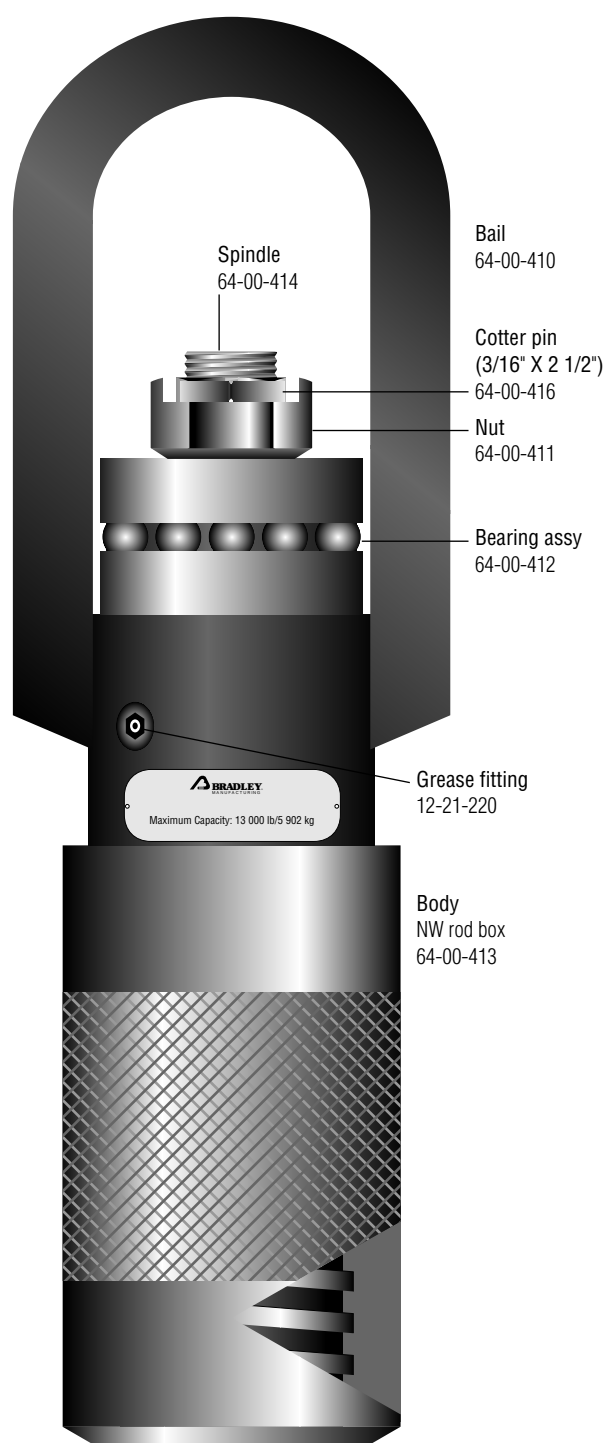
ASSEMBLY

Description	Part N ^o .	Weight	
		lb	kg
Hoisting Plug Assy NW Rod Box Assy	64-00-400	17.10	7.8

Maximum Capacity: 13 000 lb / 5 902 kg

Repair Kit Hoisting Plug

64-00-417	2.87	1.3
- Bearing 13 000 lb (1)		
- Spindle 13 000 lb (1)		
- Cotter pin (1)		



CASING ADAPTORS

W/L Rod Pin	Casing Pin	Part N ^o .
NW	BW	21-11-799
NW	NW	21-11-800
NW	HW	21-11-801
NW	PW	21-11-802

ROD ADAPTORS

W/L Rod Pin	Standard Rod Pin	Part N ^o .
A W/L	NW	34-36-008
B W/L	NW	34-36-108
N W/L	NW	34-36-208
NM W/L	NW	34-36-212
H W/L	NW	34-36-308
HM W/L	NW	34-36-327
P W/L	NW	34-36-408
HW W/L	NW	34-36-409
Thin Wall Rod Pin	Standard Rod Pin	Part N ^o .
ATW	NW	34-65-008
BTW	NW	34-65-108
NTW	NW	34-65-208

*Additional adaptor descriptions and part numbers are listed in the Adaptor section.

ASSEMBLY

Description	Part N°.	Weight	
		lb	kg
Hoisting Plug Assy NW Rod Box Assy	64-00-450	35.00	15.9

Maximum Capacity: 30 000 lb / 13 620 kg

Repair Kit

Hoisting Plug - Bearing 30 000 lb (1) - Spindle 30 000 lb (1) - Cotter pin (1)	64-00-466	3.15	1.4
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CASING ADAPTORS

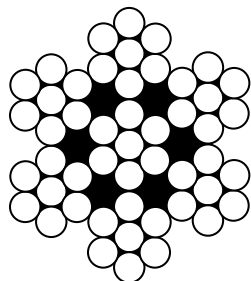
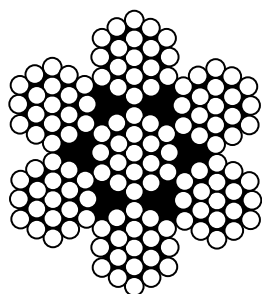
W/L Rod Pin	Casing Pin	Part N°.
NW	BW	21-11-799
NW	NW	21-11-800
NW	HW	21-11-801
NW	PW	21-11-802

ROD ADAPTORS

W/L Rod Pin	Standard Rod Pin	Part N°.
A W/L	NW	34-36-008
B W/L	NW	34-36-108
N W/L	NW	34-36-208
NM W/L	NW	34-36-212
H W/L	NW	34-36-308
HM W/L	NW	34-36-327
P W/L	NW	34-36-408
HW W/L	NW	34-36-409
Thin Wall Rod Pin	Standard Rod Pin	Part N°.
ATW	NW	34-65-008
BTW	NW	34-65-108
NTW	NW	34-65-208

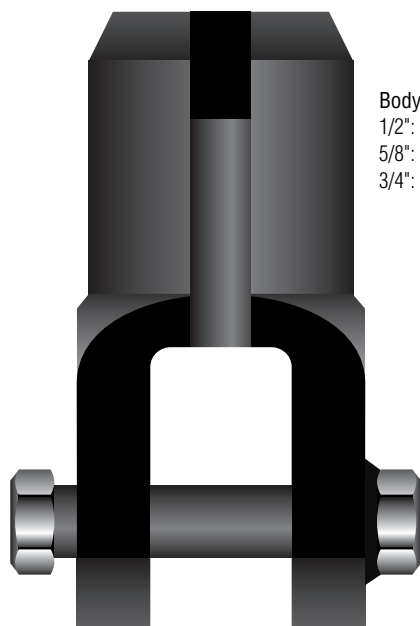
*Additional adaptor descriptions and part numbers are listed in the Adaptor section.

L1479 - Revision: 00


 Aircraft cable
(7 X 7)

 Aircraft cable
(7 X 19)

WIRELINE CABLE

Description	Size		Part No.
	Standard	Metric	
Aircraft galvanized cable (per foot)	3/16"	4.80 mm	62-10-001
500'			62-10-050
1000'			62-10-100
1500'			62-10-150
2000'			62-10-200
2500'			62-10-250
3000'			62-10-300
Armoured cable (per foot)	3/16"	4.80 mm	62-20-001
500'			62-20-050
1000'			62-20-100
1500'			62-20-150
2000'			62-20-200
2500'			62-20-250
3000'			62-20-300
3500'			62-20-350
4000'			62-20-400
5000'			62-20-500
Armoured cable (per meter)	1/4"	6.35 mm	62-22-001
500 m			62-22-050
Swaged steel cable (3 X 7) (per foot)	3/16"		62-30-001
HS 55 cable			
1000'			62-30-100
1500'			62-30-150
2000'			62-30-200
2500'			62-30-250
3000'			62-30-300
3500'			62-30-350
4000'			62-30-400
Hoisting cable (2 lugs)			
90'	1/2"		63-10-090
45'	5/8"		63-20-045
65'	5/8"		63-20-065
85'	5/8"		63-20-085
95'	5/8"		63-20-095
110'	5/8"		63-20-110
135'	5/8"		63-20-135
(1 lug)			
70'	5/8"		63-30-070
85'	5/8"		63-30-085
90'	5/8"		63-30-090
90'	9/16"		63-30-091



Body
 1/2": 63-00-021
 5/8": 63-00-022
 3/4": 63-00-023

Pin
 1/2": 63-00-011
 5/8": 63-00-012
 3/4": 63-00-013

CABLE CLEVIS

Description	Part N°.	Weight	
		lb	kg
Clevis Assy (1/2")	63-00-001	4.18	1.9
Clevis Assy (5/8")	63-00-002	7.38	3.4
Clevis Assy (3/4")	63-00-003	9.50	4.3

Note: You may use the 5/8" Clevis Assembly for 9/16" cable.

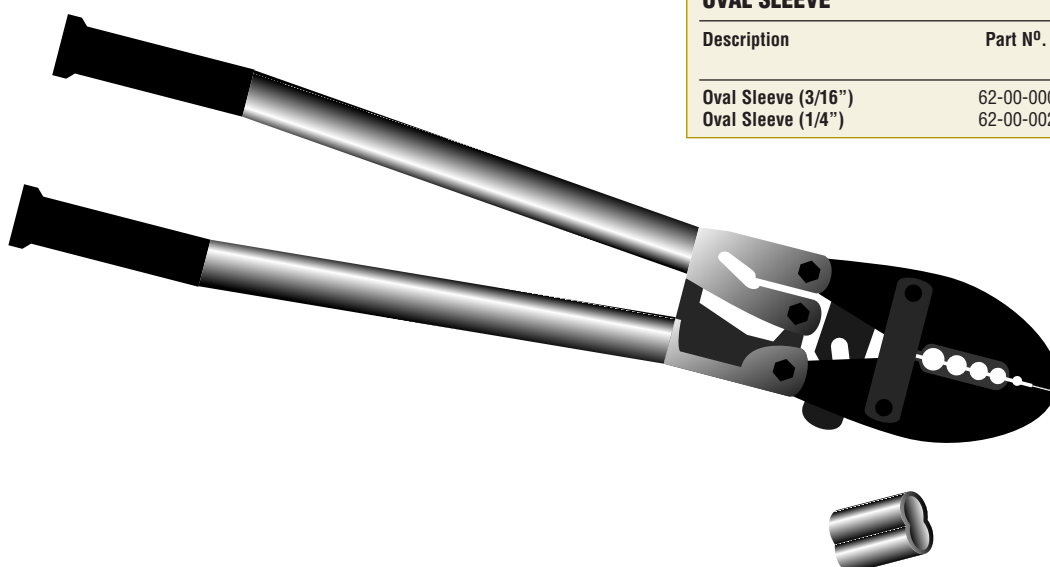
WIRELINE CABLE ACCESSORIES

OVAL TOOL

Description	Part N°.	Weight	
		lb	kg
Oval Tool (3/16")	62-00-001	6.90	3.2
Oval Tool (1/4")	62-00-005	6.90	3.2

OVAL SLEEVE

Description	Part N°.	Weight	
		lb	kg
Oval Sleeve (3/16")	62-00-000	~	~
Oval Sleeve (1/4")	62-00-002	~	~



Inner Tube Clinometer: H-2

Running Type Clinometer: H-3

Directional Deflecting Wedge: H-4

By-Pass Wedge: H-5

Wedge Plug: H-5

By-Pass Orienting Dropper B W/L: H-6

By-Pass Orienting Clinometer B W/L: H-7

By-Pass Wedge Orienting Sperry Sun B W/L: H-8

Snubber Assembly: H-9

By-Pass Orienting Dropper N W/L: H-10

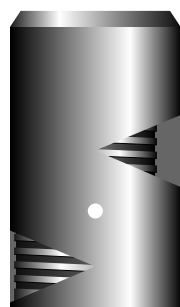
By-Pass Orienting Clinometer N W/L: H-11

By-Pass Wedge Orienting Sperry Sun N W/L: H-12

Retrievable Wedge Section: H-13

ASSEMBLIES

Description	Part N ^o .	Weight	
		lb	kg
Wireline Type Assy			
A W/L IT	90-35-200	0.70	0.3
B W/L IT	90-35-300	2.10	0.9
N W/L IT	90-35-400	4.19	1.9
H W/L IT	90-35-500	6.33	2.9
P W/L IT	90-35-600	8.40	3.8
Thin Wall Type Assy			
ATW IT	90-65-200	0.82	0.4
BTW IT	90-65-300	2.56	1.2
NTW IT	90-65-400	4.76	2.2



Cap



Cap



Rubber
stopper



Rubber
stopper

Test tube

Test tube

"O" ring

"O" ring

Container

Container

WIRELINE INNER TUBE TYPE

Cap:	A W/L:	90-35-201
	B W/L:	90-35-301
	N W/L:	90-35-401
	H W/L:	90-35-501
	P W/L:	90-35-601

Rubber stopper:	A W/L:	90-41-201
	B W/L:	90-41-201
	N W/L:	90-41-400
	H W/L:	90-41-400
	P W/L:	90-41-400

Test tube:	A W/L:	90-40-200
	B W/L:	90-40-200
	N W/L:	90-40-400
	H W/L:	90-40-400
	P W/L:	90-40-400

"O" ring:	A W/L:	90-35-000
	B W/L:	90-35-001
	N W/L:	90-35-002
	H W/L:	90-35-002
	P W/L:	90-35-002

Container:	A W/L:	90-35-202
	B W/L:	90-35-302
	N W/L:	90-35-402
	H W/L:	90-35-402
	P W/L:	90-35-402

Hydrofluoric acid:	6%:	90-42-000
	12%:	90-42-001
	8%:	90-42-002
	4%:	90-42-003

THIN WALL INNER TUBE TYPE

Cap:	ATW:	90-65-201
	BTW:	90-65-301
	NTW:	90-65-401

Rubber stopper:	ATW:	90-41-201
	BTW:	90-41-201
	NTW:	90-41-400

Test tube:	ATW:	90-40-200
	BTW:	90-40-200
	NTW:	90-40-400

"O" ring:	ATW:	90-35-000
	BTW:	90-35-002
	NTW:	90-35-002

Container:	ATW:	90-35-202
	BTW:	90-35-302
	NTW:	90-35-402

Hydrofluoric acid:	6%:	90-42-000
	12%:	90-42-001
	8%:	90-42-002
	4%:	90-42-003

ASSEMBLIES

Description	Part N ^o .	Weight	
		lb	kg
Wireline Type Assy			
A W/L	90-35-210	1.00	0.4
B W/L	90-35-310	2.20	1.0
N W/L	90-35-410	5.83	2.6
H W/L	90-35-510	8.33	3.8
P W/L	90-35-610	11.20	5.1
Thin Wall Type Assy			
ATW	90-65-210	1.42	0.6
BTW	90-65-310	3.15	1.4
NTW	90-65-410	6.20	2.8



Cap



Rubber stopper



Test tube



"O" ring



Container

WIRELINE RUNNING TYPE

Cap:	A W/L:	90-35-211
	B W/L:	90-35-311
	N W/L:	90-35-411
	H W/L:	90-35-511
	P W/L:	90-35-611
Rubber stopper:	A W/L:	90-41-201
	B W/L:	90-41-201
	N W/L:	90-41-400
	H W/L:	90-41-400
	P W/L:	90-41-400
Test tube:	A W/L:	90-40-200
	B W/L:	90-40-200
	N W/L:	90-40-400
	H W/L:	90-40-400
	P W/L:	90-40-400
"O" ring:	A W/L:	90-35-000
	B W/L:	90-35-001
	N W/L:	90-35-003
	H W/L:	90-35-003
	P W/L:	90-35-003
Container:	A W/L:	90-35-202
	B W/L:	90-35-302
	N W/L:	90-35-412
	H W/L:	90-35-412
	P W/L:	90-35-412
Hydrofluoric acid:	6%:	90-42-000
	12%:	90-42-001
	8%:	90-42-002
	4%:	90-42-003



Cap



Rubber stopper



Test tube



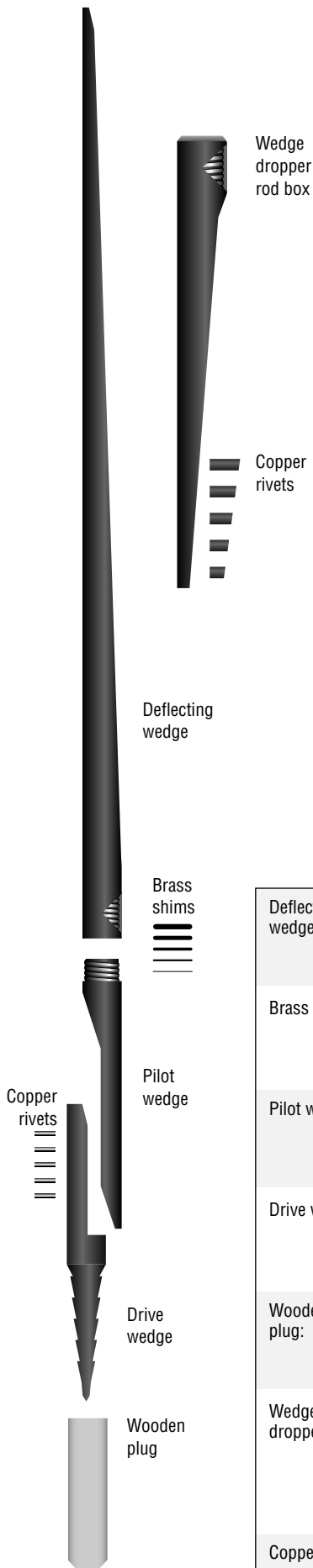
"O" ring



Container

THIN WALL RUNNING TYPE

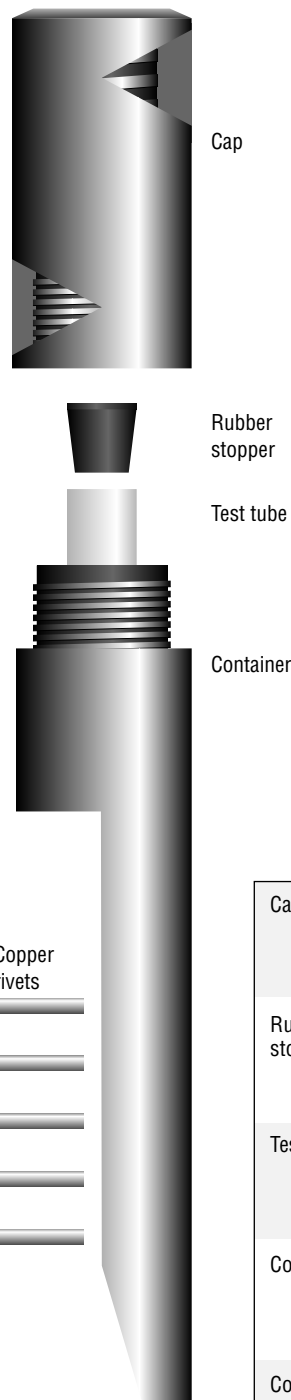
Cap:	ATW:	90-65-211
	BTW:	90-65-311
	NTW:	90-65-411
Rubber stopper:	ATW:	90-41-201
	BTW:	90-41-201
	NTW:	90-41-400
Test tube:	ATW:	90-40-200
	BTW:	90-40-200
	NTW:	90-40-400
"O" ring:	ATW:	90-35-000
	BTW:	90-35-001
	NTW:	90-35-003
Container:	ATW:	90-35-202
	BTW:	90-35-302
	NTW:	90-35-412
Hydrofluoric acid:	6%:	90-42-000
	12%:	90-42-001
	8%:	90-42-002
	4%:	90-42-003



Deflecting wedge:	A W/L:	90-05-200
	B W/L:	90-05-300
	N W/L:	90-05-400
	H W/L:	90-05-500
Brass shims:	A W/L:	90-07-200
	B W/L:	90-07-300
	N W/L:	90-07-400
	H W/L:	90-07-500
Pilot wedge:	A W/L:	90-03-200
	B W/L:	90-03-301
	N W/L:	90-03-401
	H W/L:	90-03-501
Drive wedge:	A W/L:	90-02-200
	B W/L:	90-02-301
	N W/L:	90-02-401
	H W/L:	90-02-501
Wooden plug:	A W/L:	90-01-200
	B W/L:	90-01-300
	N W/L:	90-01-400
	H W/L:	90-01-500
Wedge dropper:	A W/L:	AW rod box
	B W/L:	BW rod box
	N W/L:	NW rod box
		90-06-400
Copper rivets:	All sizes:	90-08-000

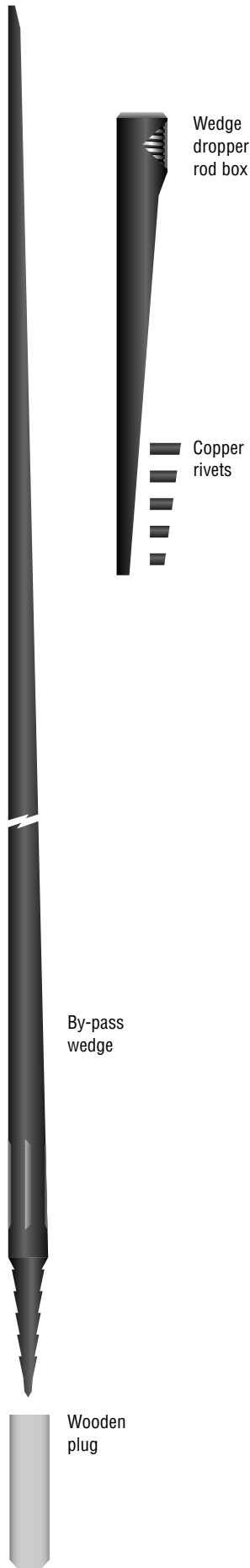
ASSEMBLIES

Description	Part N°.	Weight	
		lb	kg
CLINOMETER ASSY			
A	90-04-200	10.50	4.8
B	90-04-301	14.50	6.6
N	90-04-401	23.50	10.7
H	90-04-501	47.50	21.6



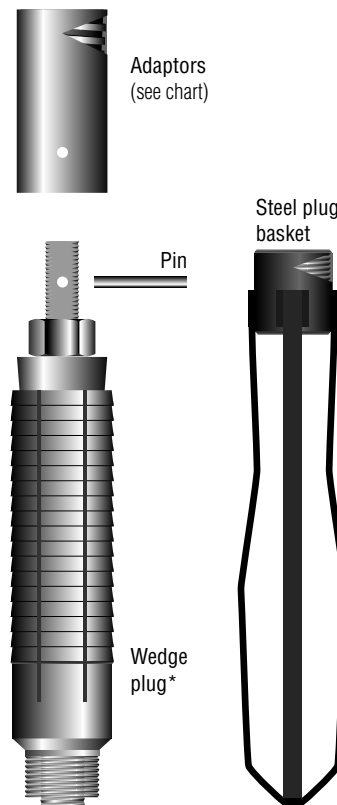
Cap:	A W/L:	90-04-210
	B W/L:	90-04-310
	N W/L:	90-04-410
	H W/L:	90-04-510
Rubber stopper:	A W/L:	90-41-400
	B W/L:	90-41-400
	N W/L:	90-41-400
	H W/L:	90-41-400
Test tube:	A W/L:	90-40-400
	B W/L:	90-40-400
	N W/L:	90-40-400
	H W/L:	90-40-400
Container:	A W/L:	90-04-211
	B W/L:	90-04-311
	N W/L:	90-04-411
	H W/L:	90-04-511
Copper rivets:	All sizes:	90-08-000

L1479 - Revision: 00



Description			Part No.		Weights	
					lb	kg
By-pass wedge:	A W/L:	90-09-200			52.00	23.6
	B W/L:	90-09-300			125.00	56.8
	N W/L:	90-09-400			255.00	115.9
	H W/L:	90-09-500			450.00	204.5
Wooden plug:	A W/L:	90-01-200			0.50	0.2
	B W/L:	90-01-300			1.00	0.4
	N W/L:	90-01-400			3.50	1.6
	H W/L:	90-01-500			7.00	3.1
Wedge dropper:	A W/L:	AW rod box				
	B W/L:	BW rod box				
	N W/L:	NW rod box				
	H W/L:	NW rod box				
Copper rivets: All sizes:			90-08-000		0.25	0.1

WEDGE PLUG



Description			Part No.		Weights	
					lb	kg
Steel plug basket:	A W/L:	90-56-202			1.40	0.6
	B W/L:	90-56-302			1.53	0.7
	N W/L:	90-56-402			1.53	0.7
	H W/L:	90-56-502			1.53	0.7
Wedge plug*:	A W/L:	90-56-200			5.70	2.6
	B W/L:	90-56-300			8.45	3.8
	N W/L:	90-56-400			12.10	5.5
	H W/L:	90-56-500			17.00	7.7

* Comes complete with pin.

ADAPTORS

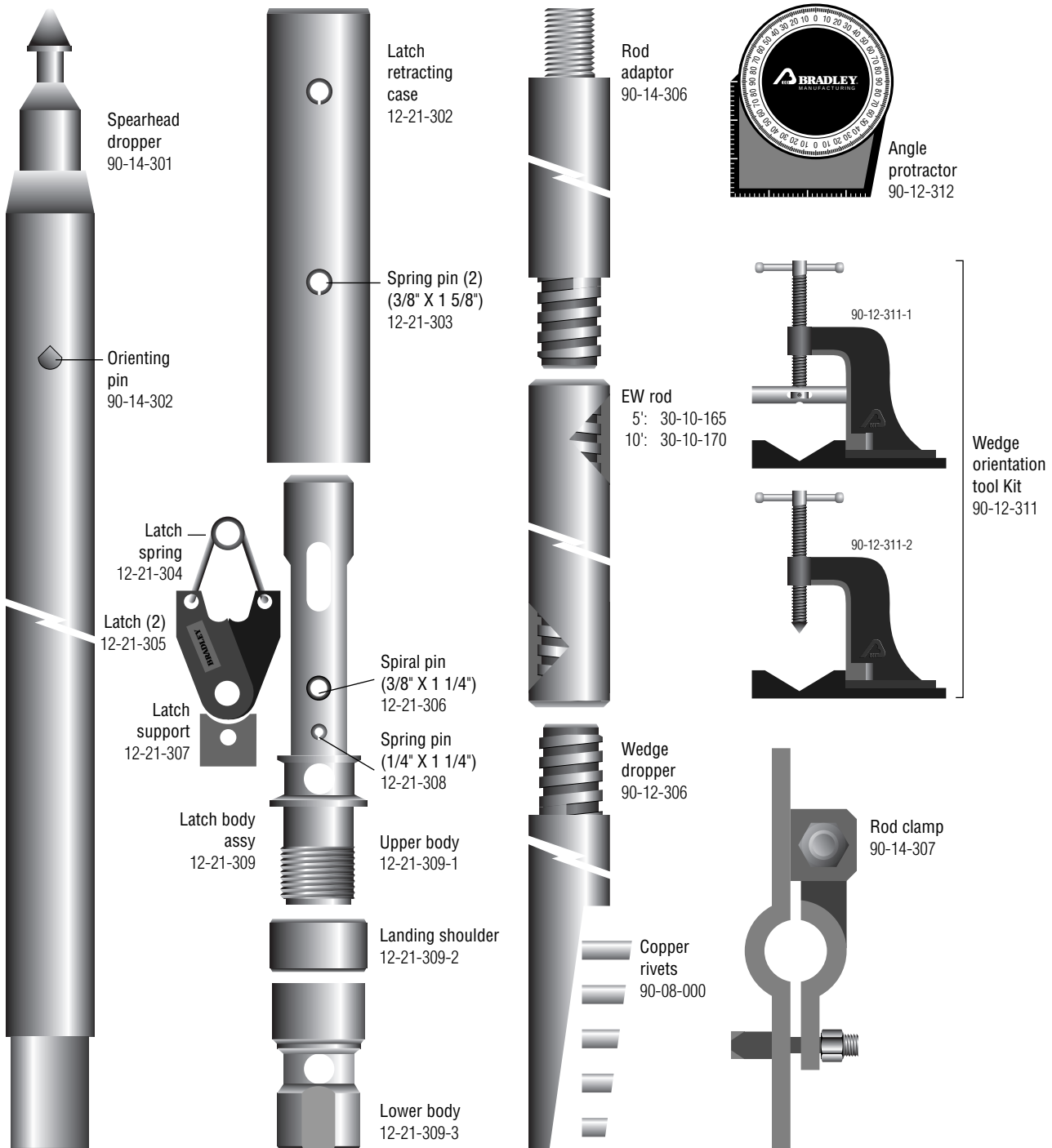
Description		Part No.	Weight	
Rod Box	Square Box		lb	kg
A W/L	3/4"	90-56-201	1.98	0.9
B W/L	3/4"	90-56-301	2.95	1.3
N W/L	3/4"	90-56-401	4.56	2.0
H W/L	3/4"	90-56-501	7.34	3.3
<i>Thin Wall</i>				
ATW	3/4"	90-56-211	1.90	0.8
BTW	3/4"	90-56-311	2.15	1.2
NTW	3/4"	90-56-411	4.10	1.8

*Additional adaptor descriptions and part numbers are listed in the adaptor section.

L1479 - Revision: 00

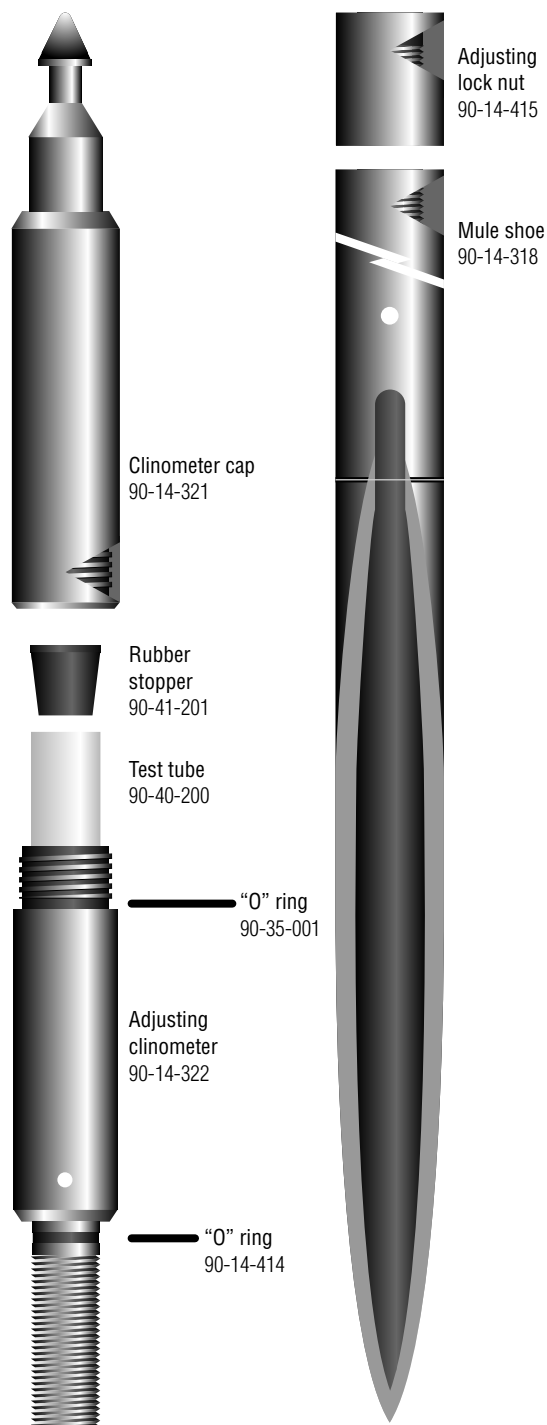
ASSEMBLY

Description	Part N°.	Weight	
		lb	kg
B W/L Orienting Dropper Assy	90-14-300	131.00	59.5



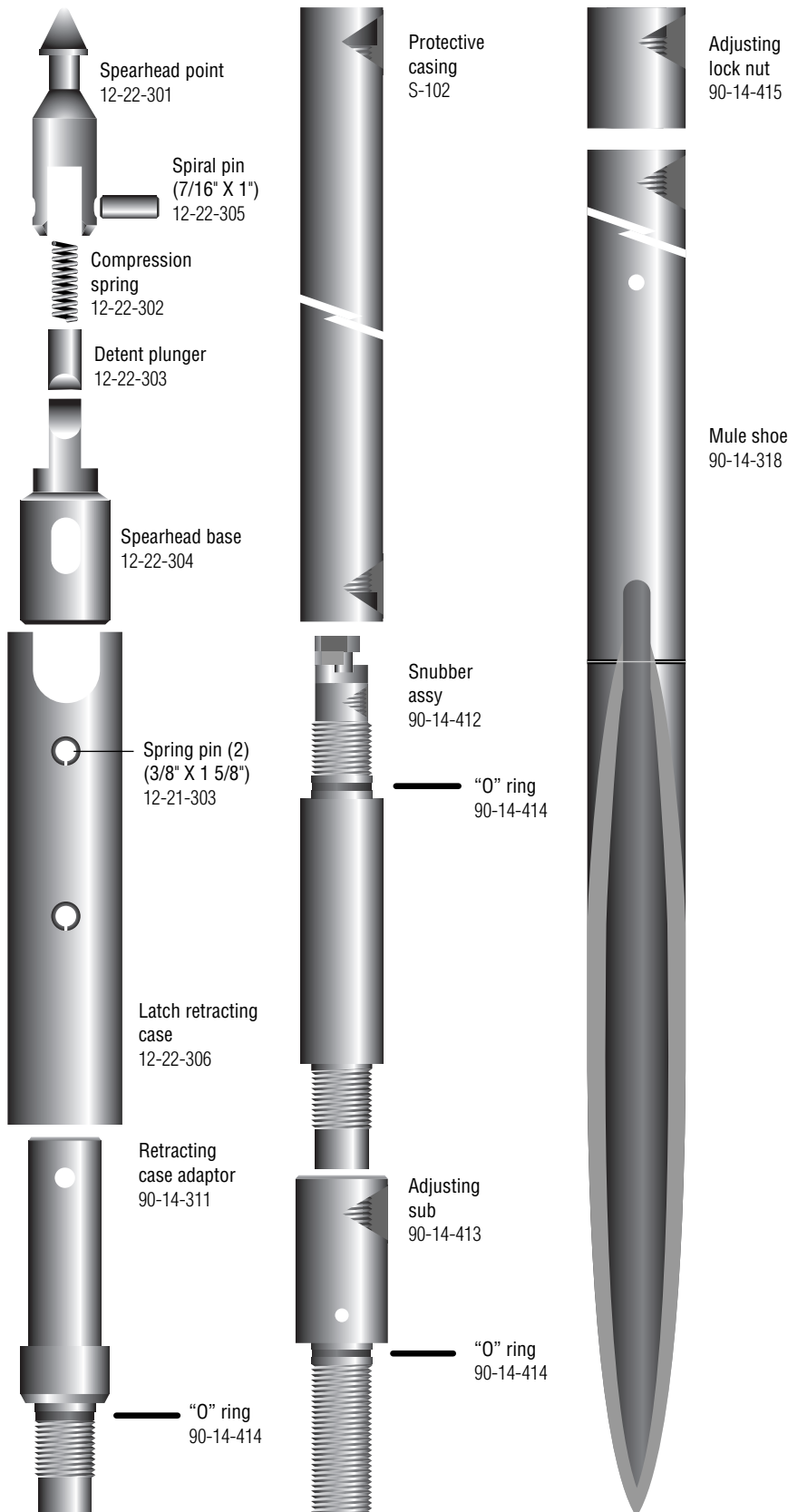
ASSEMBLY

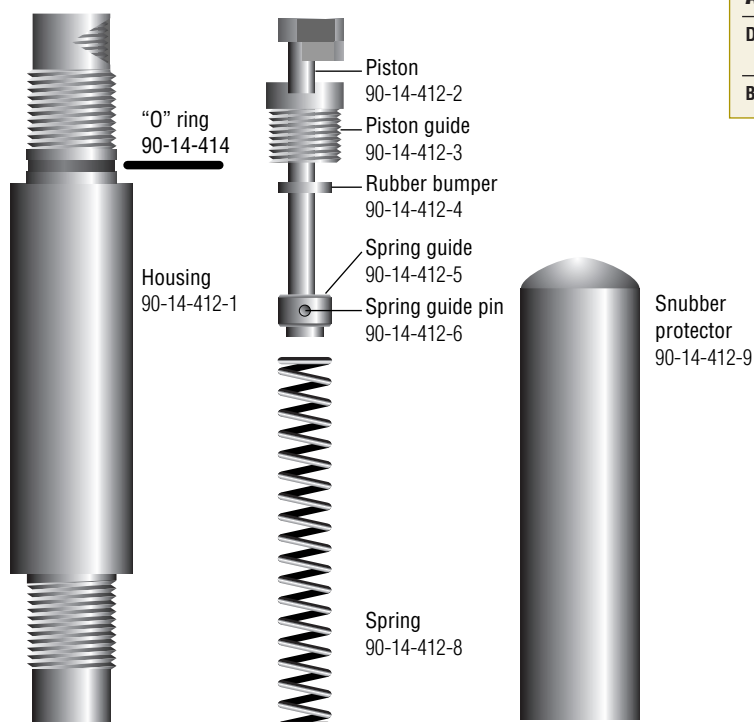
Description	Part N ^o .	Weight	
		lb	kg
B W/L Orienting Clinometer Assy	90-14-320	12.50	5.7



ASSEMBLY

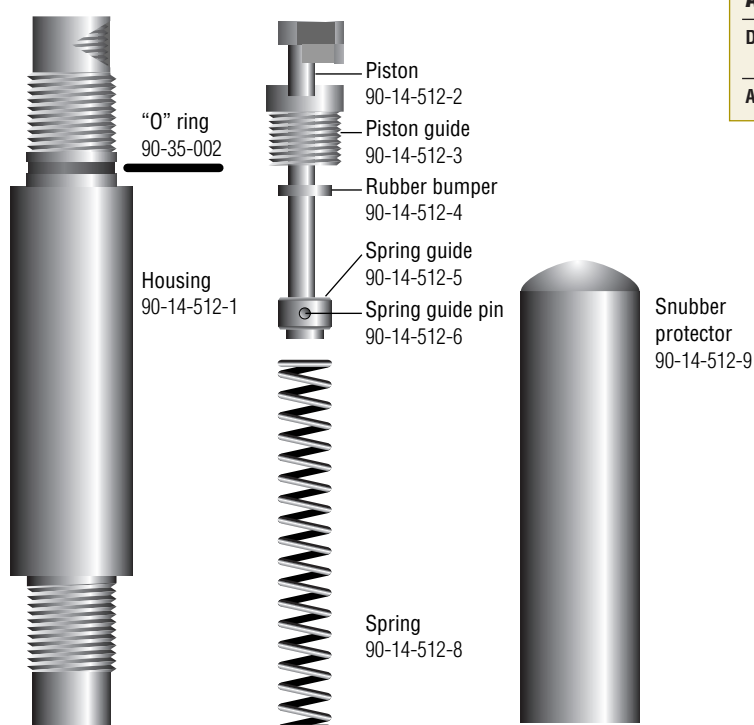
Description	Part N°.	Weight	
		lb	kg
B W/L Orienting Sperry Sun Assy	90-14-310	27.03	12.3





ASSEMBLY

Description	Part N°.	Weight	
		lb	kg
B Snubber Assy	90-14-412	3.00	1.4

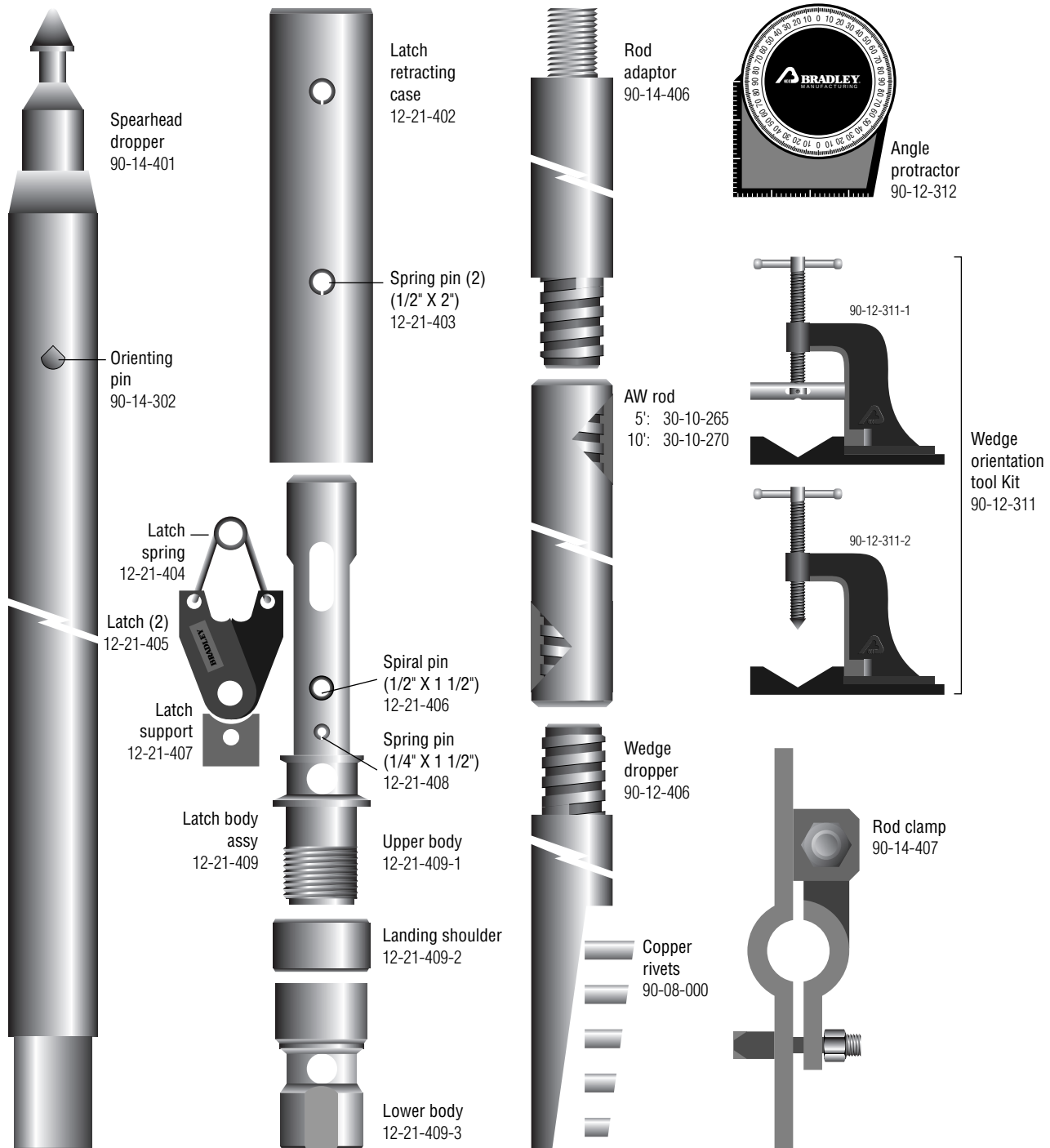


ASSEMBLY

Description	Part N°.	Weight	
		lb	kg
A Snubber Assy	90-14-512	5.50	2.5

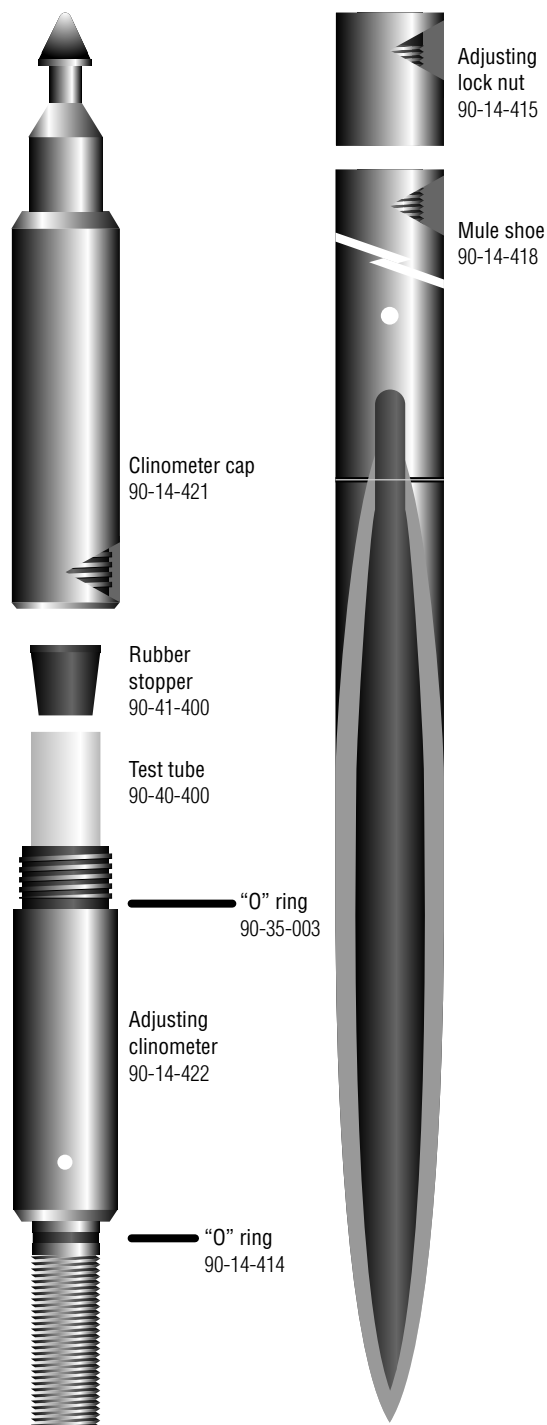
ASSEMBLY

Description	Part N°.	Weight	
		lb	kg
N W/L Orienting Dropper Assy	90-14-400	173.00	78.6



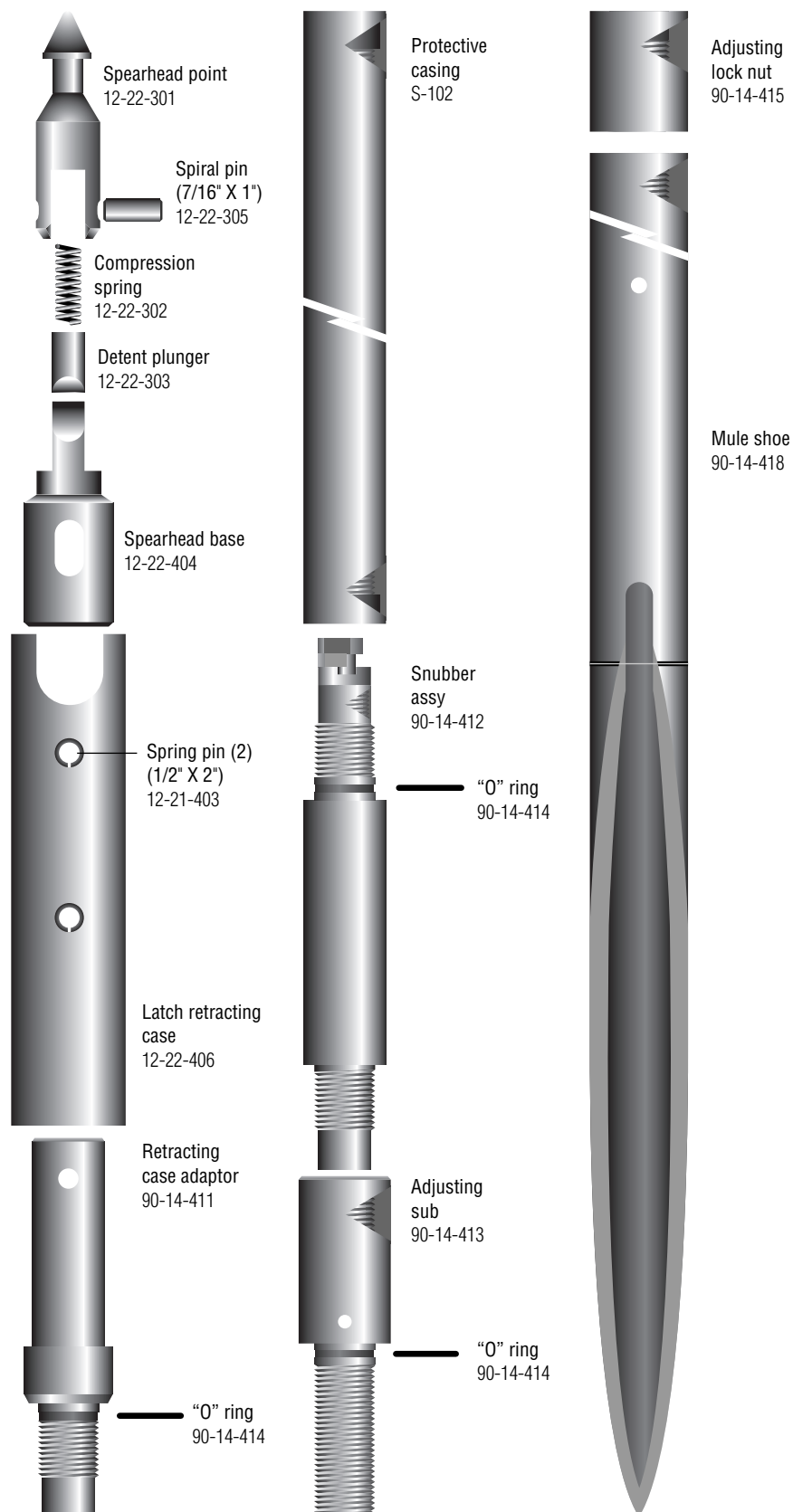
ASSEMBLY

Description	Part N ^o .	Weight	
		lb	kg
N W/L Orienting Clinometer Assy	90-14-420	19.00	8.6



ASSEMBLY

Description	Part N°.	Weight	
		lb	kg
N W/L Orienting Sperry Sun Assy	90-14-410	48.50	22.1



Retrieval Wedge Assembly B W/L: H-14

Retrieval Wedge Acid Orienting B W/L: H-15

Retrieval Wedge Sperry Sun Orienting B W/L: H-16

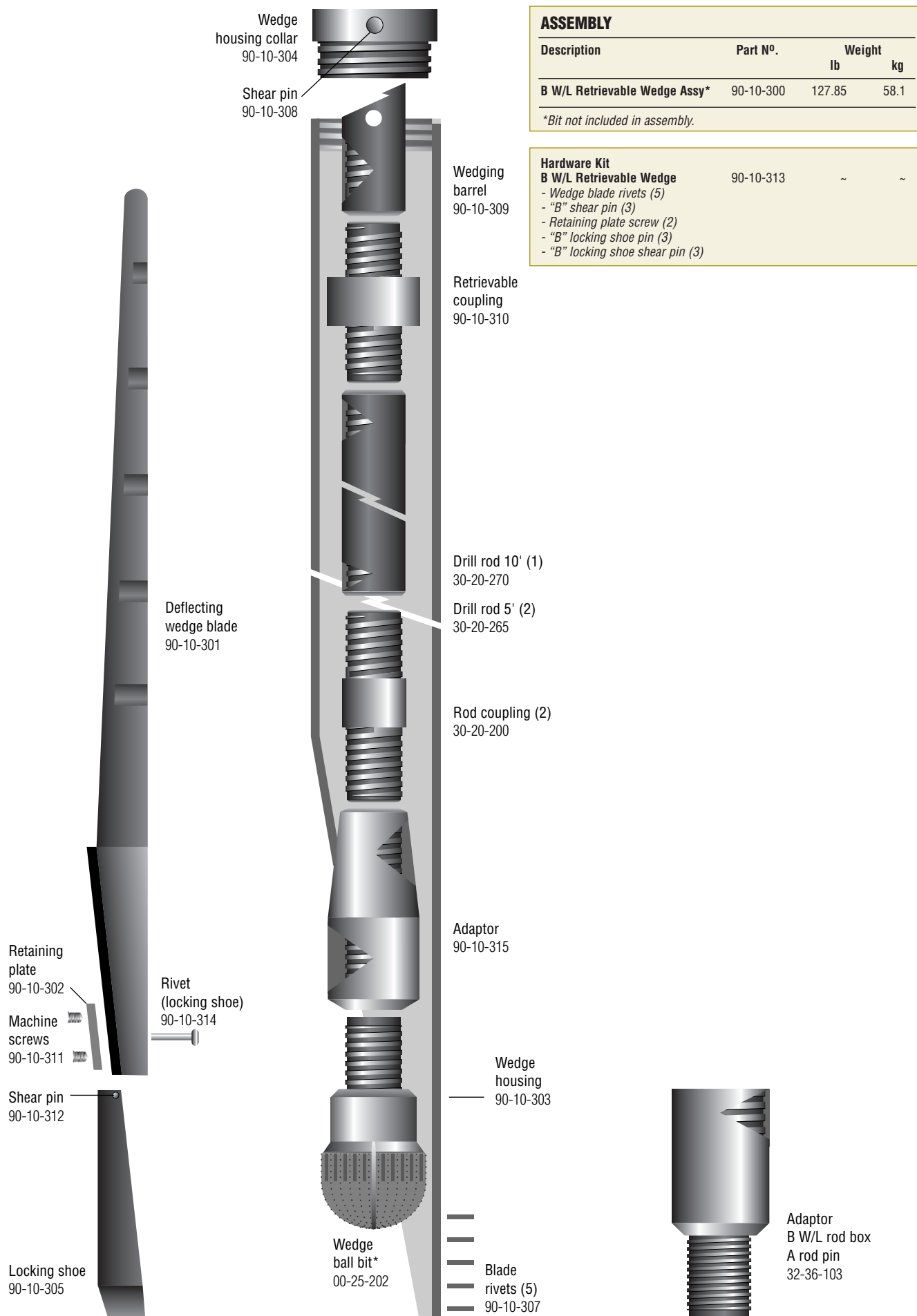
Retrieval Wedge Pilot Reamer Assembly B W/L: H-17

Retrieval Wedge Assembly N W/L: H-18

Retrieval Wedge Acid Orienting N W/L: H-19

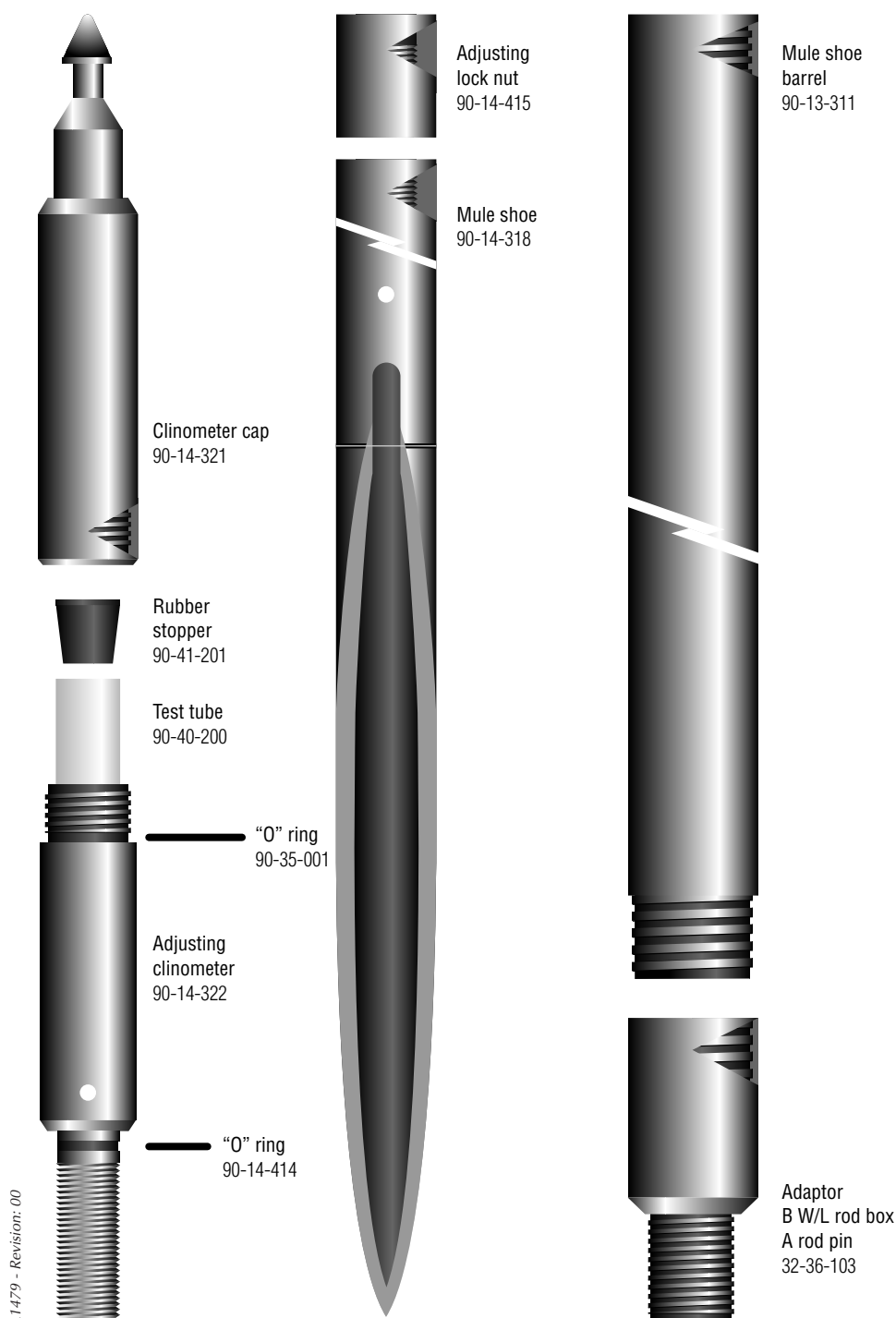
Retrieval Wedge Sperry Sun Orienting N W/L: H-20

Retrieval Wedge Pilot Reamer Assembly N W/L: H-21



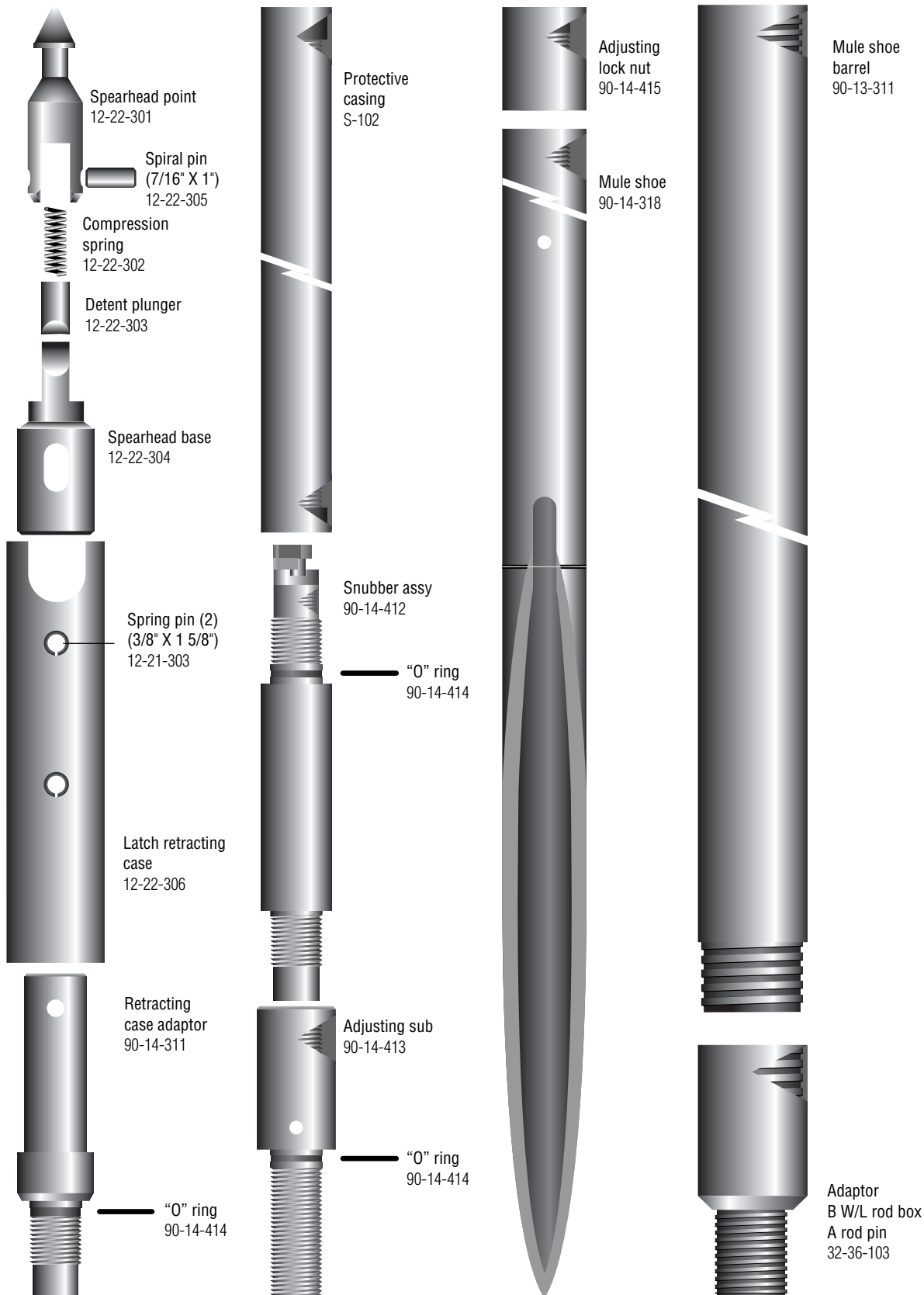
ASSEMBLY

Description	Part N ^o .	Weight	
		lb	kg
B W/L Acid Orienting Assy	90-13-305	33.00	15.0



ASSEMBLY

Description	Part N°.	Weight	
		lb	kg
B W/L Orienting Sperry Sun Assy	90-13-310	49.51	22.5



ASSEMBLY

Description	Part N ^o .	Weight	
		lb	kg
B W/L Pilot Reamer Assy*	90-11-300	40.58	18.4

**Bits and shells not included in assembly.*



Wedge
reaming bit*
00-25-303



Lower &
intermediate
coupling
90-11-302



Lower &
intermediate
barrel
90-11-301



Wedge
reaming shell*
00-25-304



Wedge ball bit*
00-25-302



Lower &
intermediate
barrel
90-11-301



Wedge
reaming bit*
00-25-303



Lower &
intermediate
coupling
90-11-302



Lower &
intermediate
barrel
90-11-301



Drill rod
adaptor
32-36-105



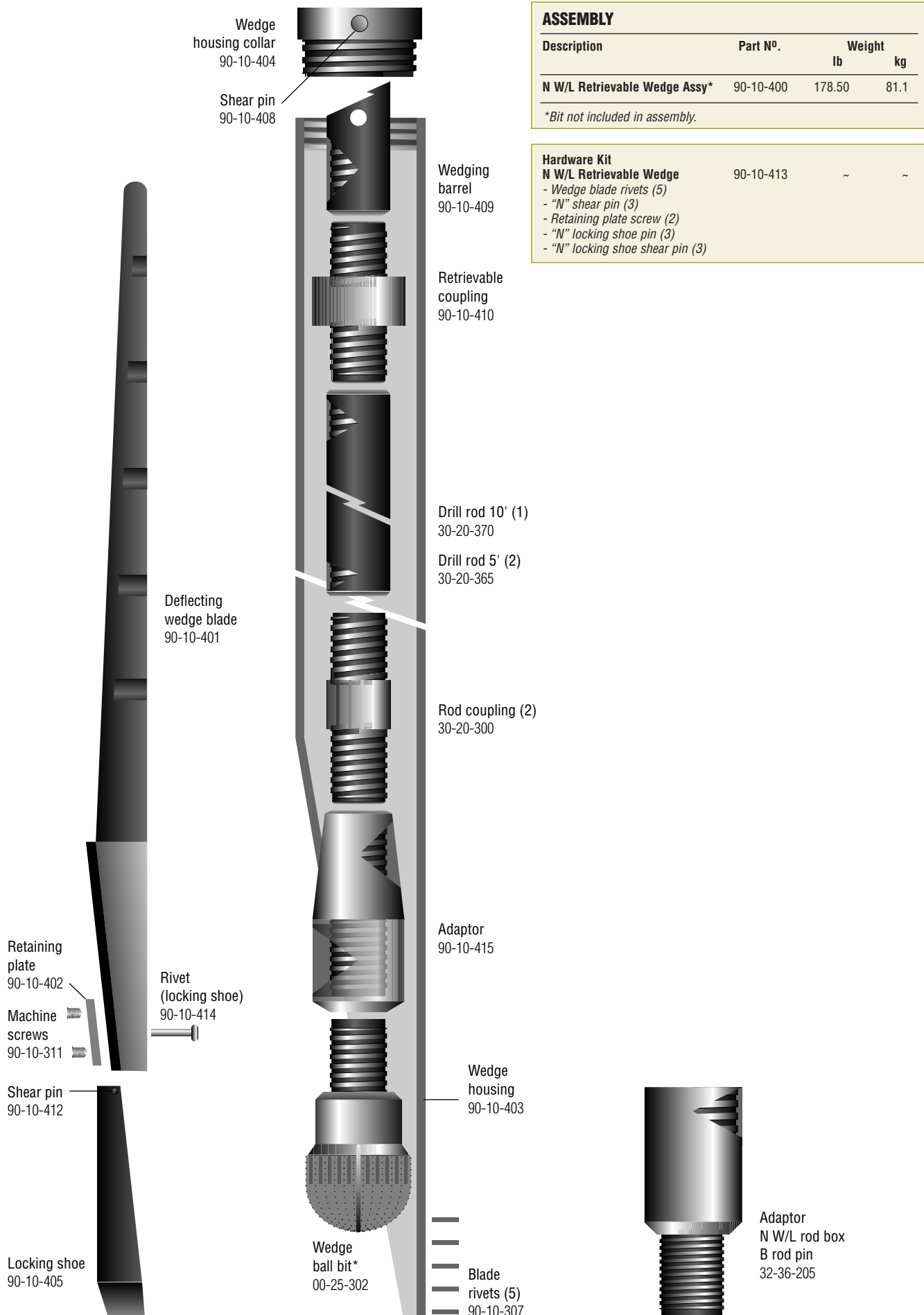
Drill rod 5'
30-20-365



Wedge
reaming bit*
00-25-303

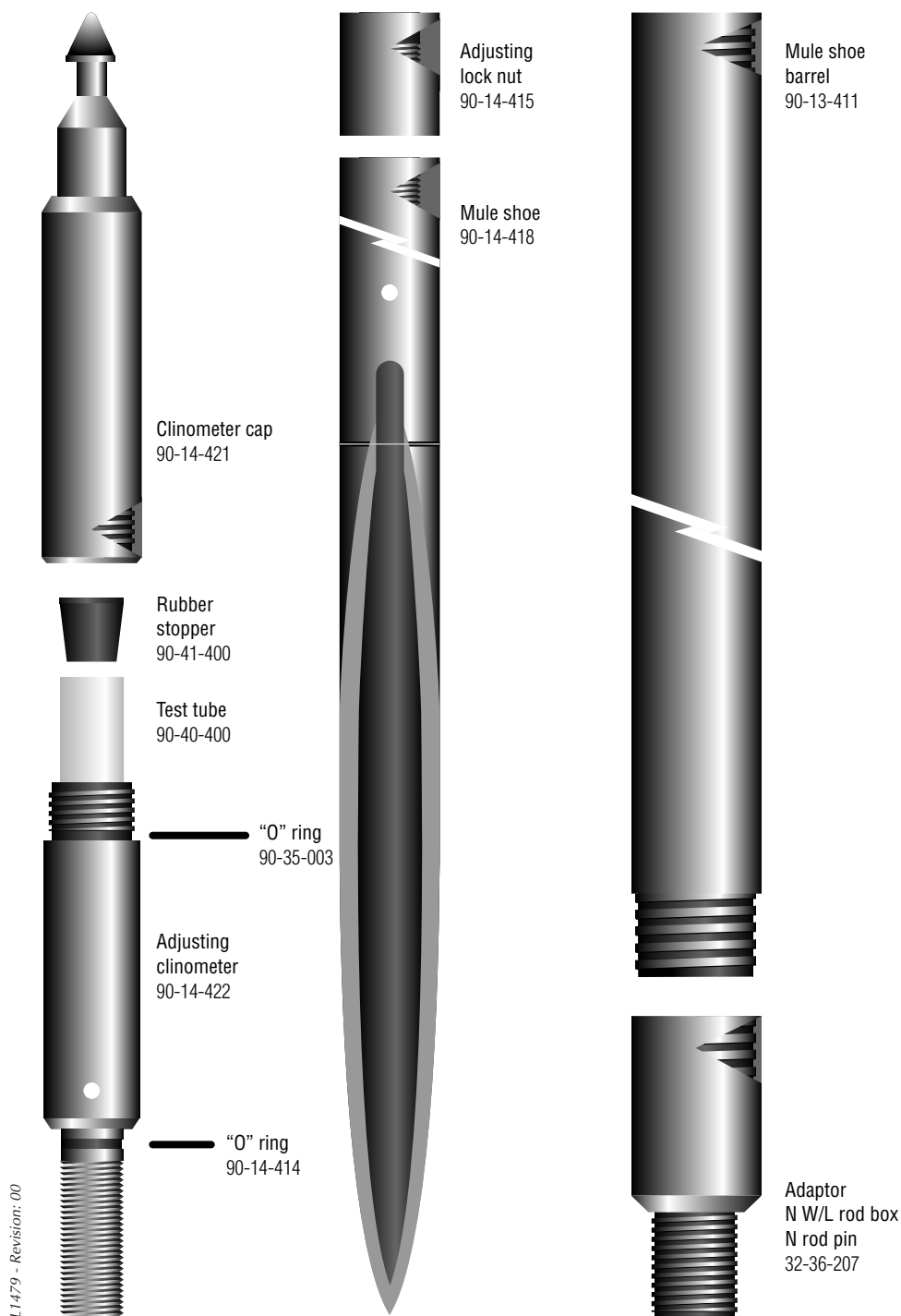


Lower &
intermediate
coupling
90-11-302



ASSEMBLY

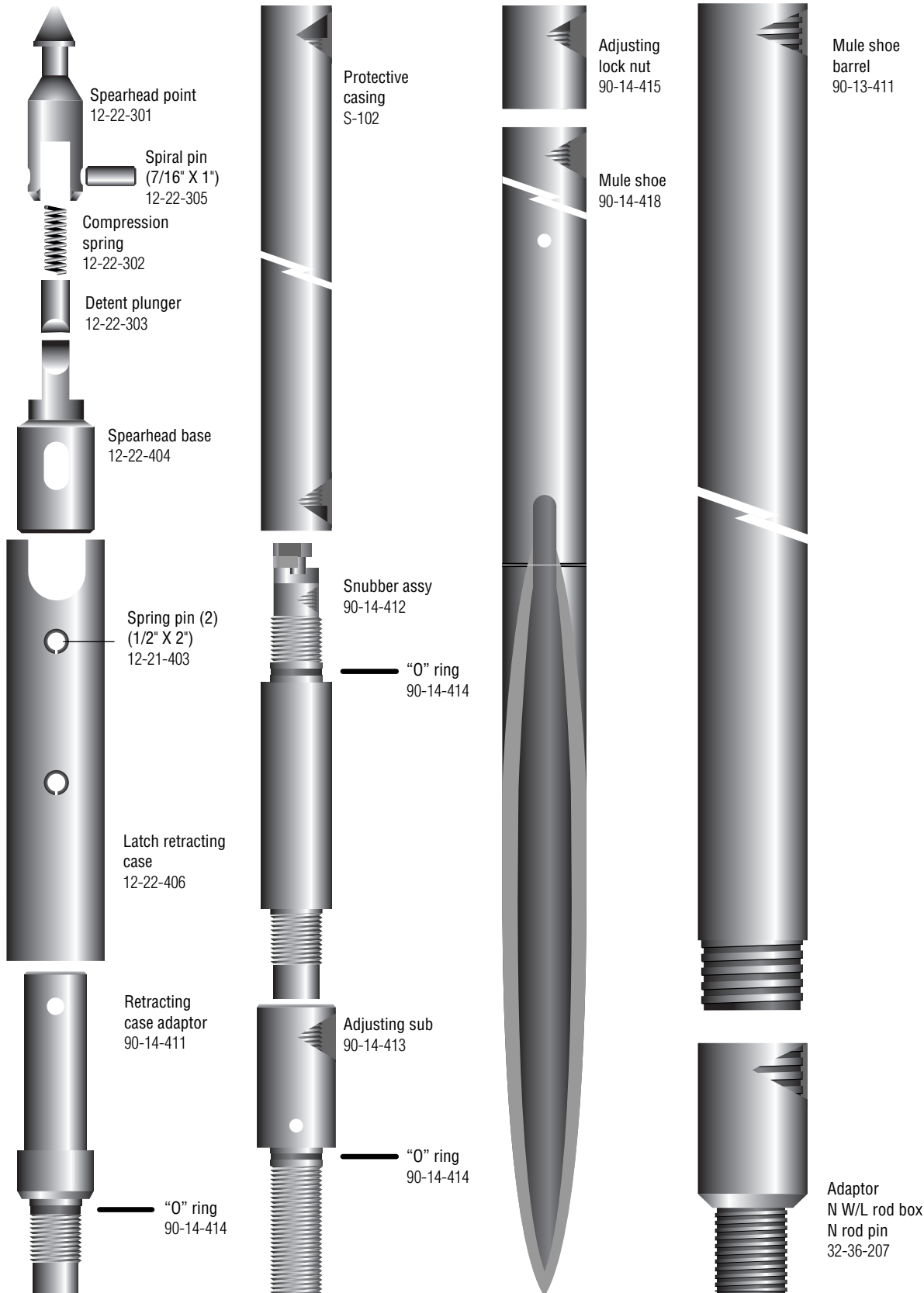
Description	Part N ^o .	Weight	
		lb	kg
N W/L Acid Orienting Assy	90-13-405	61.00	27.8



L1479 - Revision: 00

ASSEMBLY

Description	Part N°.	Weight	
		lb	kg
N W/L Orienting Sperry Sun Assy	90-13-410	62.44	28.4



ASSEMBLY

Description	Part N ^o .	Weight	
		lb	kg
N W/L Pilot Reamer Assy*	90-11-400	84.21	38.3

*Bits and shells not included in assembly.



Wedge
reaming bit*
00-25-403



Lower &
intermediate
coupling
90-11-402



Lower &
intermediate
barrel
90-11-401



Wedge
reaming shell*
00-25-404



Wedge ball bit*
00-25-402



Lower &
intermediate
barrel
90-11-401



Wedge
reaming bit*
00-25-403



Lower &
intermediate
coupling
90-11-402



Lower &
intermediate
barrel
90-11-401



Drill rod
adaptor
32-36-207



Drill rod 5'
30-20-465



Wedge
reaming bit*
00-25-403



Lower &
intermediate
coupling
90-11-402

Camp Heater: I-2

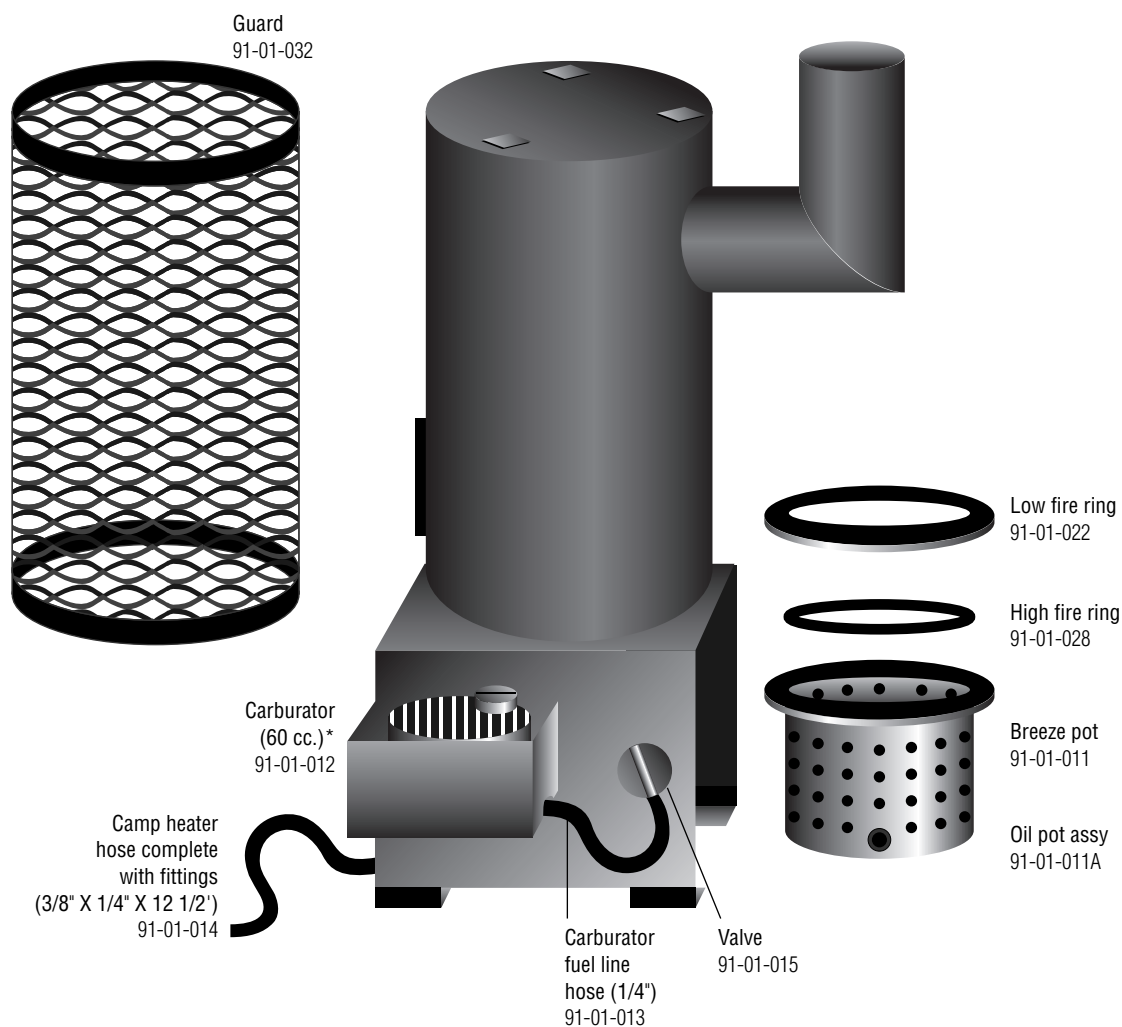
Water Line Heater: I-3

Chuck Jaws: I-4

Chuck Booster: I-4

ASSEMBLIES

Size	Part N°.	Weight	
		lb	kg
Camp Heater Assy (complete with guard)	91-01-001	75.53	34.3
Camp Heater Assy (complete with guard, hose and fitting)	91-01-000	78.00	35.4
Accessories (not included in assemblies unless otherwise specified)			
Guard	91-01-032	8.00	3.6
Galvanized Elbow (7")	91-01-033	2.00	0.9
Galvanized Key (7")	91-01-034	2.50	1.1
Galvanized Sheet (7" X 30")	91-01-035	6.00	2.7
Galvanized Cap (7")	91-01-036	2.00	0.9
Air Regulator	91-01-037	3.00	1.4



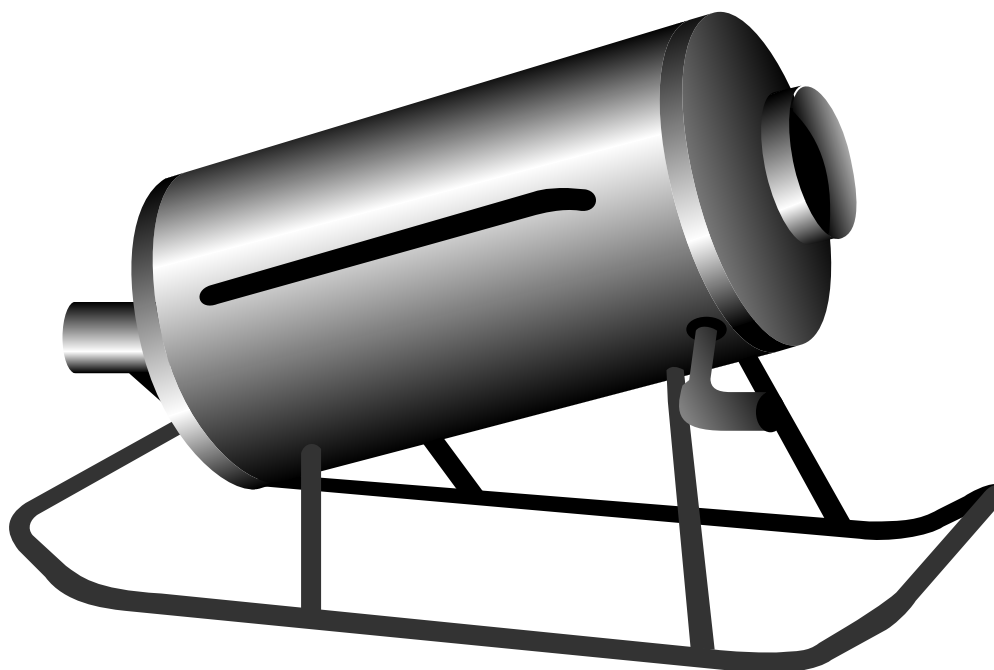
* 60 cc. emits approximately 100 000 to 120 000 BTU's.

ASSEMBLY

Description	Part N°.	Weight	
		lb	kg
Propane Water Line Heater	11961	180.00	81.7

Dimensions:

47" long X 22" wide X 27" high



Features:

- Innovation design for maximum fuel efficiency;
- Lighter, easy to handle;
- Heats water in 5 minutes;
- No stove pipes required;
- Fully insulated housing;
- Removable torch;
- Comes complete with lines to hook onto 4 X 100 propane tanks.

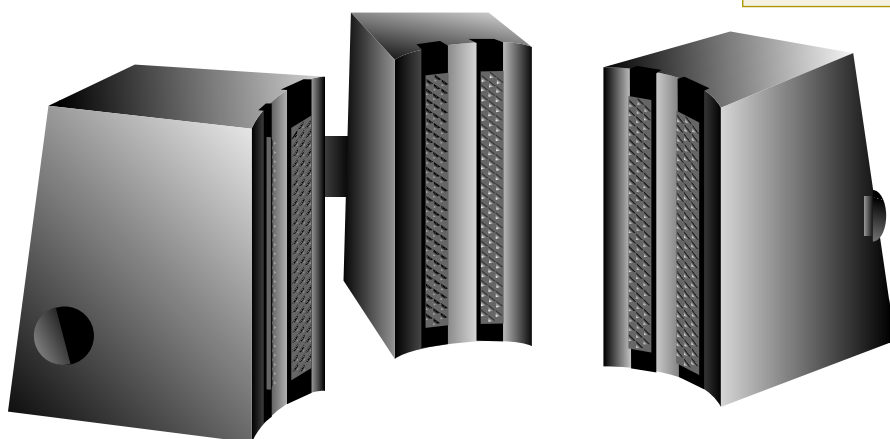
Installation:

- Stove has to be level for maximum efficiency;
- Hook up lines on tank and install torch in stove;
- Start water flow and then light torch;
- Adjust torch in holder until the best flame is obtained, tighten set screw;
- Best propane operating pressure is 25 p.s.i.;
- Ensure maximum ventilation if installed inside pump house.

(Tested at 1 500 p.s.i.)



Carbide
replacement
insert (1)
29588



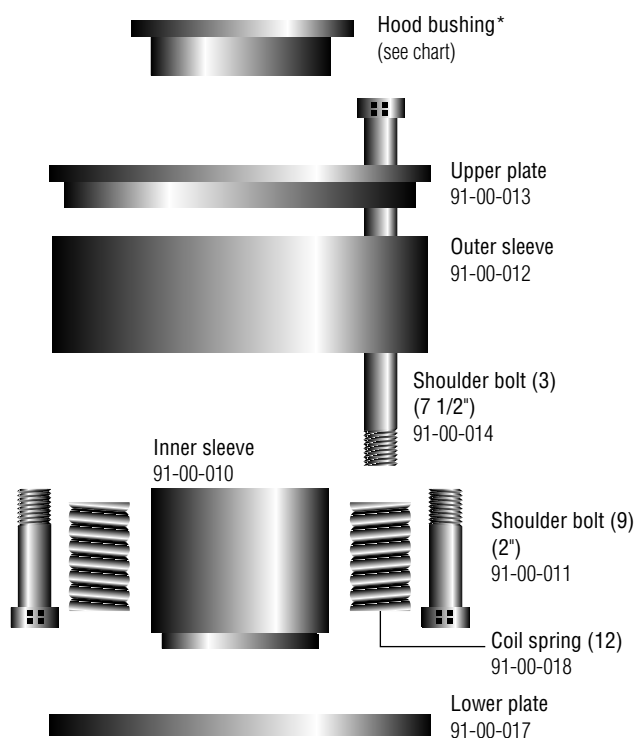
ASSEMBLY

Size	Part N°.	Weight	
		lb	kg
AW Casing	29187	4.75	2.2
BW Casing	29189	4.27	1.9
NW Casing	28348	3.68	1.7
BW Rod	29186	4.75	2.2
NW Rod	29054	4.45	2.0
HW Rod	28348	3.68	1.7
A W/L Rod	28351	5.22	2.4
B W/L Rod	28350	4.87	2.2
N W/L Rod	28349	4.37	2.0
H W/L Rod	28348	3.68	1.7

Thin Wall

ATW Rod	28351	5.22	2.4
BTW Rod	28350-1	4.83	2.2
NTW Rod	29189	4.27	1.9

CHUCK BOOSTER



ASSEMBLY

Size	Part N°.	Weight	
		lb	kg
Chuck Booster Assy	91-00-000	34.75	15.8

*Hood Bushing not included in assembly.

HOOD BUSHING*

Description	Part N°.
A Casing	29013
B Casing	29014
N Casing	29015
A W/L Rod	29012
B W/L Rod	29013
N W/L Rod	29014
H W/L Rod	29015