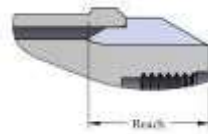
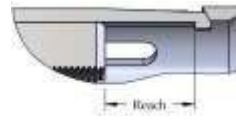


**Fig 1 - Measuring of Pulling Tool's Reach**



For Internal Fishing Neck



For External Fishing Neck

**Rebco - Helpful Hint:** How to choose the right Pulling Tool for the task:

1. Know the Fishing Neck Type on the Tool to be retrieved.
2. Reach is critical; the Fishing Neck needs to be engaged
3. Anticipate difficulty down-hole; choose Shear Up or Shear Down
  - The action of the Pulling Tools depends on shearing the **Shear Pin** in the Tool
  - **Shear Up Pulling Tools**; shear against the force on Dogs
  - **Shear Down Pulling Tools**; shear against the force on the Core, or Cylinder, for Internal Fishing Necks

**Note: Pulling Tools:** Shear Up Series '**ROTJU\_**', '**ROTR\_**', and Shear Down Series '**ROTJD\_**', '**ROTS\_**', require only the Core to be changed; to obtain the desired Reach; as shown in Fig 2.

**Fig 2 - Comparative of '**ROTR\_**' and '**ROTS\_**' Pulling Tools**



Cores



Series Type: '**ROTRB**', '**ROTRS**' and '**ROTRJ**'



Cores



Series Type: '**ROTSB**', and '**ROTSS**'

**Chart: Pulling Tool Selection Guide**

| FISHING NECK TYPE<br>TO ENGAGE | PULLING TOOL TYPE: SERIES |            |          | JAR<br>TO RELEASE               |
|--------------------------------|---------------------------|------------|----------|---------------------------------|
|                                | SHEAR UP                  | SHEAR DOWN | SPECIAL  |                                 |
| EXTERNAL                       | 'ROTR_'                   |            | 'RQ'     | UP                              |
|                                | 'ROTJU_'                  |            |          |                                 |
|                                | 'ROTB_'                   |            |          |                                 |
|                                |                           | 'ROTS_'    | 'SQ'     | DOWN                            |
|                                |                           | 'ROTJD_'   |          |                                 |
|                                |                           | 'RH'       |          |                                 |
|                                |                           |            | 'ROTSSJ' |                                 |
| INTERNAL                       | 'ROTGR'                   |            |          | DOWN w/Adapter<br>MODE: Up/Down |
|                                | 'ROTGRL'                  |            |          |                                 |
|                                |                           | 'ROTGS'    |          | UP w/Adapter                    |
|                                |                           | 'ROTGSL'   |          |                                 |



## SECTION IV: PULLING TOOLS

2021

REBCO

### Type 'ROTGR' Pulling Tool Assembly: 1.25" – 7.00"

**Rebco** Type 'ROTGR' Pulling Tool is a combination tool made up of the Type 'ROTGS' Pulling Tool and Type 'ROTGU' Shear-Up Adapter.

**NOTE:** Do not place a **SHEAR PIN** in the Type 'ROTGS' Pulling Tool section of the Type 'ROTGR' Pulling Tool Assembly.

| NOMINAL SIZE    | 1 1/4"      | 1 1/2"      | 2"          | 2"          | 2 1/2"      |
|-----------------|-------------|-------------|-------------|-------------|-------------|
| ASSEMBLY NUMBER | 40051312500 | 40051315000 | 40051317800 | 40051318700 | 40051321800 |

| DET | ASSEMBLY         | QTY | PART NO | PART NO | PART NO | PART NO | PART NO |
|-----|------------------|-----|---------|---------|---------|---------|---------|
| 1   | SHEAR UP ADAPTER | 1   |         |         |         |         |         |
| 2   | PULLING TOOL     | 1   |         |         |         |         |         |

#### ENGINEERING DATA:

|                             |             |             |             |             |             |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|
| MAXIMUM OD                  | 1.16"       | 1.47"       | 1.75"       | 1.81"       | 2.16"       |
| PIN THREAD CONNECTION       | 5/8" - 11   | 15/16" - 10 | 15/16" - 10 | 15/16" - 10 | 15/16" - 10 |
| FISHING NECK OD             | 1.000"      | 1.187"      | 1.375"      | 1.375"      | 1.750"      |
| BOTTOM THREAD (PRONG)       | 3/8" - 16   | 1/2" - 13   | 1/2" - 13   | 1/2" - 13   | 5/8" - 11   |
| WILL ENGAGE FISHING NECK ID | .88"        | 1.06"       | 1.38"       | 1.38"       | 1.81"       |
| REACH                       | 1.08"       | 1.62"       | 1.62"       | 1.62"       | 1.62"       |
| LENGTH                      | 14.03"      | 17.62"      | 18.54"      | 18.54"      | 19.07"      |
| MATERIAL                    | Alloy       | Alloy       | Alloy       | Alloy       | Alloy       |
| WEIGHT lbs (kg)             | 2.88 (1.31) | 5.7 (2.59)  | 8.8 (3.99)  | 9.2 (4.17)  | 13.7 (6.21) |





## SECTION IV: PULLING TOOLS

2021

REBCO

### Type 'ROTGR' Pulling Tool Assembly: Continued



| NOMINAL SIZE    | 2 1/2"      | 3"          | 3 1/2"      | 4"          | 5"          |
|-----------------|-------------|-------------|-------------|-------------|-------------|
| ASSEMBLY NUMBER | 40051323100 | 40051327500 | 40051331202 | 40051336804 | 40051345600 |

| DET | ASSEMBLY         | QTY | PART NO | PART NO | PART NO | PART NO | PART NO |
|-----|------------------|-----|---------|---------|---------|---------|---------|
| 1   | SHEAR UP ADAPTER | 1   |         |         |         |         |         |
| 2   | PULLING TOOL     | 1   |         |         |         |         |         |

#### ENGINEERING DATA:

|                             |             |              |              |              |              |
|-----------------------------|-------------|--------------|--------------|--------------|--------------|
| MAXIMUM OD                  | 2.25"       | 2.72"        | 3.12"        | 3.62"        | 4.50"        |
| PIN THREAD CONNECTION       | 15/16" - 10 | 1 1/16" - 10 | 1 1/16" - 10 | 1 1/16" - 10 | 1 1/16" - 10 |
| FISHING NECK OD             | 1.750"      | 2.313"       | 2.313"       | 2.313"       | 3.125"       |
| BOTTOM THREAD (PRONG)       | 5/8" - 11   | 5/8" - 11    | 1 3/8" - 12  | 2 1/8" - 12  | 2 1/2" - 10  |
| WILL ENGAGE FISHING NECK ID | 1.812"      | 2.31"        | 2.62"        | 3.12"        | 4.00"        |
| REACH                       | 1.62"       | 1.62"        | 1.62"        | 1.62"        | 1.62"        |
| LENGTH                      | 19.07"      | 19.42"       | 19.65"       | 19.65"       | 25.16"       |
| MATERIAL                    | Alloy       | Alloy        | Alloy        | Alloy        | Alloy        |
| WEIGHT lbs (kg)             | 15.2 (6.89) | 23.6 (10.70) | 25.8 (11.70) | 30.6 (13.88) | 59.4 (26.94) |



| NOMINAL SIZE    | 6"          | 7"          | 7"          |
|-----------------|-------------|-------------|-------------|
| ASSEMBLY NUMBER | 40051356200 | 40051358700 | 40051359600 |

| DET | ASSEMBLY         | QTY | PART NO | PART NO | PART NO |
|-----|------------------|-----|---------|---------|---------|
| 1   | SHEAR UP ADAPTER | 1   |         |         |         |
| 2   | PULLING TOOL     | 1   |         |         |         |

#### ENGINEERING DATA:

|                             |              |              |              |
|-----------------------------|--------------|--------------|--------------|
| MAXIMUM OD                  | 5.56"        | 5.83"        | 5.88"        |
| PIN THREAD CONNECTION       | 1 1/16" - 10 | 1 1/16" - 10 | 1 1/16" - 10 |
| FISHING NECK OD             | 3.125"       | 3.125"       | 3.125"       |
| BOTTOM THREAD (PRONG)       | 2 3/4" - 10  | 3 5/8" - 10  | 3 5/8" - 10  |
| WILL ENGAGE FISHING NECK ID | 4.75"        | 5.38"        | 5.38"        |
| REACH                       | 1.78"        | 1.86"        | 1.86"        |
| LENGTH                      | 27.3"        | 27.53"       | 27.53"       |
| MATERIAL                    | Alloy        | Alloy        | Alloy        |
| WEIGHT lbs (kg)             | 68.5 (31.07) | 99.0 (44.91) | 101 (45.81)  |