

# Cage

Weima Original

**C11—Cage, Top Open**

| Sucker rod thread | Part No.        | API No. |
|-------------------|-----------------|---------|
| 3/4"              | C11-20 (XX)     | C11-20  |
| 3/4"              | C11-25 (XX)     | C11-25  |
| 3/4"              | C11-30 (XX)     | C11-30  |
| 7/8"              | C11-30-7/8 (XX) | —       |
| 7/8"              | C11-40-7/8 (XX) | —       |
| 1"                | C11-40 (XX)     | C11-40  |



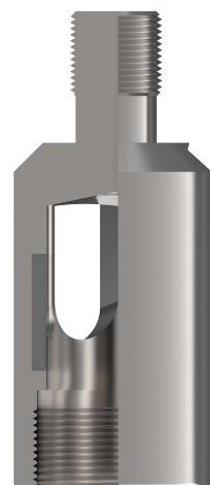
The upper open bonnet is standard on tubular pumps. The upper part is connected with the sucker rod string, the lower part is connected with the plunger, and the traveling valve is placed in it. Material selection and structural strength are the key factors in product design. In order to strengthen the protection of the valve hood, there are alloy lined valve hood designed for thermal production and high flushing oil Wells. There is a rubber lined valve cover designed for cold production and high stroke oil Wells.

Note:

- 1) "XX" is Material identification symbol.

**C11A—Cage, Top Open, Hard Lined**

| Sucker rod thread | Part No.     | Replaceable API standard parts |
|-------------------|--------------|--------------------------------|
| 3/4"              | C11A-20 (XX) | C11-20                         |
| 3/4"              | C11A-25 (XX) | C11-25                         |



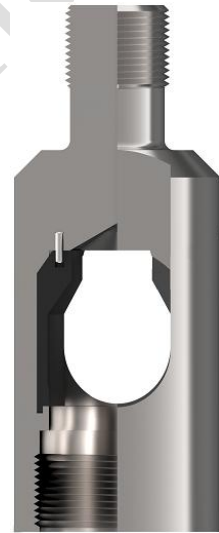
|      |                  |        |
|------|------------------|--------|
| 3/4" | C11A-30 (XX)     | C11-30 |
| 7/8" | C11A-30-7/8 (XX) | —      |
| 7/8" | C11A-40-7/8 (XX) | —      |
| 1"   | C11A-40 (XX)     | C11-40 |

Note:

- 1) “XX” is Material identification symbol;
- 2) Internal surface hard alloy surfacing for valve ball guidance, hardness 35HRC ~ 45HRC, thickness of one side 0.050in ~ 0.125in (1.27mm ~ 3.175mm);
- 3) With hard alloy valve ball, it can protect the cage.

### C11R—Cage, Top Open, Hard Lined

| Sucker rod thread | Part No.         | Replaceable API standard parts |
|-------------------|------------------|--------------------------------|
| 3/4"              | C11R-20 (XX)     | C11-20                         |
| 3/4"              | C11R-25 (XX)     | C11-25                         |
| 3/4"              | C11R-30 (XX)     | C11-30                         |
| 7/8"              | C11R-30-7/8 (XX) | —                              |
| 1"                | C11R-30-1 (XX)   | —                              |
| 7/8"              | C11R-40-7/8 (XX) | —                              |
| 1"                | C11R-40 (XX)     | C11-40                         |



Note:

- 1) “XX” is Material identification symbol;
- 2) Inner surface lined with hydrogenated nitrile rubber for valve ball guidance, Hardness HA85-95, temperature resistance 120 °C ;
- 3) It can protect the valve ball in high stroke wells and sand-containing wells.

### C12—Cage, Top Plunger

The plunger upper valve hood is a standard component on rod type oil pumps. The upper part is connected with the valve stem, the lower part is connected with the plunger, and the traveling valve is placed in it. Material selection and structural strength are the key factors in product

design. There are material selection and structural strength design for the breaking of the connecting valve stem. Similarly, in order to strengthen the protection of the valve hood, there are alloy lined valve hoods designed for thermal production and high flushing oil Wells; There is a rubber lined valve cover designed for cold production and high stroke oil Wells.

| Valve rod | Part No.        | API No.    | Lq, mm |
|-----------|-----------------|------------|--------|
| 11/16"    | C12-106 (XX)    | C12-106    | 19.10  |
| 11/16"    | C12-125 (XX)    | C12-125    | 19.10  |
| 11/16"    | C12-150-20 (XX) | C12-150-20 | 19.10  |
| 7/8"      | C12-150-25 (XX) | C12-150-25 | 19.10  |
| 7/8"      | C12-175 (XX)    | C12-175    | 19.10  |
| 7/8"      | C12-200 (XX)    | C12-200    | 19.10  |
| 1 1/16"   | C12-225 (XX)    | C12-225    | 19.10  |
| 1 1/16"   | C12-250 (XX)    | C12-250    | 19.10  |
| 1 1/4"    | C12-325 (XX)    | —          | 19.10  |

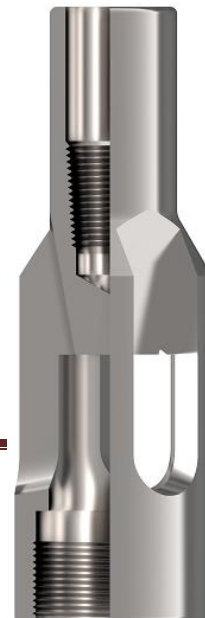


Note:

- 1) "XX" is Material identification symbol.
- 2) Lq is the counterbore depth at the thread end of the pipeline.

### C12M—Cage, Top Open

| Valve rod | Part No.         | API No.     | Lq, mm |
|-----------|------------------|-------------|--------|
| 11/16"    | C12M-106 (XX)    | C12M-106    | 38.10  |
| 11/16"    | C12M-125 (XX)    | C12M-125    | 38.10  |
| 11/16"    | C12M-150-20 (XX) | C12M-150-20 | 38.10  |
| 7/8"      | C12M-150-25 (XX) | C12M-150-25 | 38.10  |





|         |               |          |       |
|---------|---------------|----------|-------|
| 7/8"    | C12M-175 (XX) | C12M-175 | 38.10 |
| 7/8"    | C12M-200 (XX) | C12M-200 | 38.10 |
| 1 1/16" | C12M-225 (XX) | C12M-225 | 38.10 |
| 1 1/16" | C12M-250 (XX) | C12M-250 | 38.10 |
| 1 1/4"  | C12M-325 (XX) | —        | 38.10 |

Note:

1) "XX"

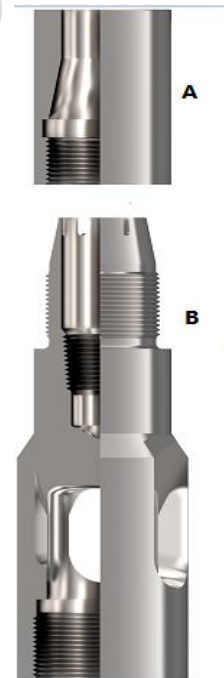
is Material

identification symbol;

2) L<sub>q</sub> is the counterbore depth at the thread end of the pipeline. The increase in L<sub>q</sub> length effectively reduces the occurrence of fractures at the valve rod threads, suitable for deep well and high SPM well.

### C12Q—Cage, Top Open, Collet Type

| Valve rod | Part No.         | API No.     |
|-----------|------------------|-------------|
| 11/16"    | C12Q-106 (XX)    | C12Q-106    |
| 11/16"    | C12Q-125 (XX)    | C12Q-125    |
| 11/16"    | C12Q-150-20 (XX) | C12Q-150-20 |
| 7/8"      | C12Q-150-25 (XX) | C12Q-150-25 |
| 7/8"      | C12Q-175 (XX)    | C12Q-175    |
| 7/8"      | C12Q-200 (XX)    | C12Q-200    |
| 1 1/16"   | C12Q-225 (XX)    | C12Q-225    |
| 1 1/16"   | C12Q-250 (XX)    | C12Q-250    |
| 1 1/4"    | C12Q-325 (XX)    | —           |
| 1 1/2"    | C12Q-325 (XX) D  | —           |



Note:

1) "XX" is Material identification symbol;

2) Product structure can effectively avoid tripping and breakage of the root of valve rod thread, and be suitable for deep well and high SPM well.

### **C13—Cage, Closed, Pin Plunger**

Exposed grain plunger closed valve hood is the standard part on the plunger of the oil pump. Places the traveling valve inside. There is a large flow channel structure designed for the flow channel area; There is a guide structure for inclined Wells to shorten the drop time of the valve ball. In order to strengthen the protection of the valve hood, there is a valve hood with alloy lining designed for thermal recovery and high flush-rate oil Wells, and a valve hood with insert cage structure. There is a rubber lined valve cover designed for cold production and high flushing oil Wells. There is an anti-air lock hood designed for air lock.

| Part No.     | API No. |
|--------------|---------|
| C13-106 (XX) | C13-106 |
| C13-125 (XX) | C13-125 |
| C13-150 (XX) | C13-150 |
| C13-175 (XX) | C13-175 |
| C13-200 (XX) | C13-200 |
| C13-225 (XX) | C13-225 |
| C13-250 (XX) | C13-250 |
| C13-275 (XX) | C13-275 |
| C13-375 (XX) | C13-375 |



Note:

- 1) “XX” is Material identification symbol;
- 2) Ball cavity guidance, reduce the ball swing, and make the valve ball fall quickly.
- 3) It is suitable for inclined well.

**C13P—Cage, Closed, Pin Plunger, Flat Type**

| Part No.      | API No. |
|---------------|---------|
| C13P-106 (XX) | C13-106 |
| C13P-125 (XX) | C13-125 |
| C13P-150 (XX) | C13-150 |
| C13P-175 (XX) | C13-175 |
| C13P-200 (XX) | C13-200 |
| C13P-225 (XX) | C13-225 |
| C13P-250 (XX) | C13-250 |
| C13P-275 (XX) | C13-275 |
| C13P-375 (XX) | C13-375 |



Note:

- 1) “XX” is Material identification symbol;
- 2) Large runner area without guidance, reducing heavy oil flow resistance.
- 3) It is suitable for wells with sufficient fluid or heavy oil.

**C13A—Cage, Closed, Pin Plunger, Hard Lined**

| Part No.      | API No. |
|---------------|---------|
| C13A-106 (XX) | C13-106 |
| C13A-125 (XX) | C13-125 |
| C13A-150 (XX) | C13-150 |
| C13A-175 (XX) | C13-175 |
| C13A-200 (XX) | C13-200 |
| C13A-225 (XX) | C13-225 |
| C13A-250 (XX) | C13-250 |
| C13A-275 (XX) | C13-275 |
| C13A-375 (XX) | C13-375 |



Note:

- 1) “XX” is Material identification symbol;
- 2) Internal surface hard facing for valve ball guidance, hardness 35HRC~45HRC, per side thickness 0.050in~0.125in ( 1.27mm~3.175mm);
- 3) With hard alloy valve ball, it can protect the cage.

**C13FQ—Cage, Closed, Pin plunger**

| Part No.       | API No. |
|----------------|---------|
| C13FQ-125 (XX) | C13-125 |
| C13FQ-150 (XX) | C13-150 |
| C13FQ-175 (XX) | C13-175 |
| C13FQ-200 (XX) | C13-200 |
| C13FQ-225 (XX) | C13-225 |
| C13FQ-250 (XX) | C13-250 |







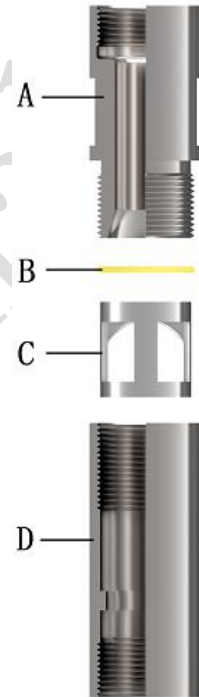
|                |   |
|----------------|---|
| C13FQ-325 (XX) | — |
|----------------|---|

Note:

- 1) “XX” is Material identification symbol;
- 2) It is used with C14FQ in anti-gas rod pump.

**C13L—Cage, Closed, Pin Plunger, Insert**

| Part No. | A        | B                                                | C                                             | D                                             |
|----------|----------|--------------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| C13L-125 | Stellite | red copper/Pressure-resistant combination washer | Steel/Alloy steel /Nickel copper alloy /Brass | Steel/Alloy steel /Nickel copper alloy /Brass |
| C13L-150 |          |                                                  |                                               |                                               |
| C13L-175 |          |                                                  |                                               |                                               |
| C13L-200 |          |                                                  |                                               |                                               |
| C13L-225 |          |                                                  |                                               |                                               |
| C13L-250 |          |                                                  |                                               |                                               |



Note:

- 1) A Stellite alloys have high wear resistance and erosion resistance;
- 2) The cage has a large flow passage area.

**C13R—Cage, Closed, Pin Plunger, Rubber Lined**

| Part No.      | API No. |
|---------------|---------|
| C13R-175 (XX) | C13-175 |
| C13R-200 (XX) | C13-200 |
| C13R-225 (XX) | C13-225 |
| C13R-250 (XX) | C13-250 |
| C13R-275 (XX) | C13-275 |
| C13R-375 (XX) | C13-375 |



Note:

- 1) “XX” is Material identification symbol;
- 2) The inner surface is lined with hydrogenated nitrile rubber for valve ball guidance, hardness HA85-95, temperature resistance 120 °C;
- 3) It can protect the valve ball in high SPM wells and sand-containing wells.



**威马股份**  
WEIMA OIL & GAS LIFTING

Tel: 0086 531-75919863

Fax: 0086 531-78856601

Website: [www.sdweima.com](http://www.sdweima.com)

Email: [weima@sdweima.com](mailto:weima@sdweima.com)