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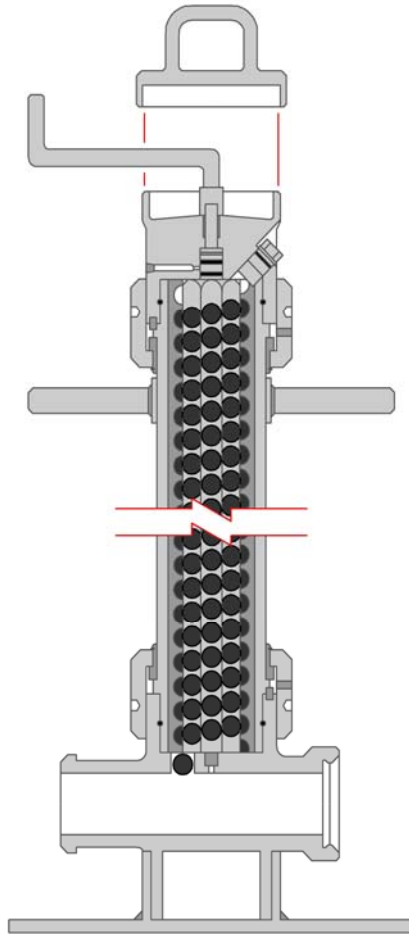
**HIGH-PRESSURE WELL
STIMULATION
COMPONENTS**

BALL INJECTOR
MODEL JHS-200



BALL INJECTOR

MODEL JHS-200



THE JHS-200 BALL INJECTOR IS AN EXCELLENT PERFORMER FOR ANY TYPE OF ENVIRONMENT, AND AS A RESULT IT WILL HELP TO ACHIEVE A MORE SUCCESSFUL SELECTIVE DIVERSION OF FRACTURING OR ACIDIZING FLUIDS IN HIGH PRESSURE STIMULATION TREATMENT

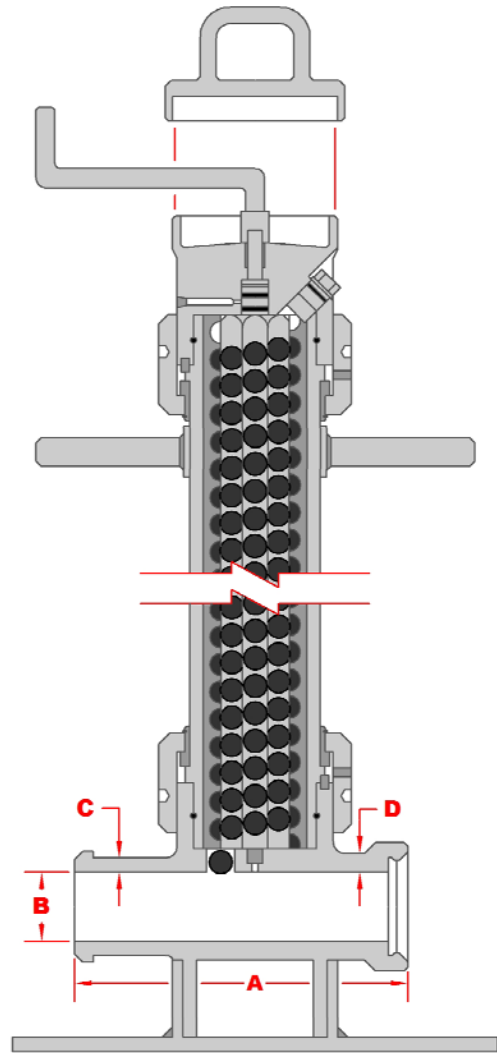
JHS-200 CHARACTERISTICS AND ADVANTAGES:

- HEAVY-DUTY CONSTRUCTION FOR ANY OILFIELD ENVIRONMENT
- HIGH PRESSURE APPLICATION – 15,000 PSI WORKING PRESSURE FOR 2" AND 3" 1502 MODELS WITH 22,500 PSI TEST PRESSURE
- POSITIVE BALL FEED
- FUNCTIONS EQUALLY WELL AT LOW OR HIGH PRESSURE
- WORKS EXTREMELY WELL IN FLUID STREAMS OF VARYING VISCOSITIES, DENSITIES, AND SAND CONCENTRATIONS
- 200 BALL CAPACITY (7/8" DIA.)
- IF A LARGER NUMBER OF BALLS ARE REQUIRED, ADDITIONAL UNITS MAY BE PLACED IN LINE



BALL INJECTOR

MODEL JHS-200 STANDARDS



| ASSEMBLY PART NUMBER | | 200-215 | 200-310 | 200-315 | 200-406 | 200-410 |
|-------------------------|---|------------|------------|------------|-----------|------------|
| CONNECTION AND SIZE | | 2" - 1502 | 3" - 1002 | 3" - 1502 | 4" - 602 | 4" - 1002 |
| DIMENSIONS | A | 13.18" | 13.38" | 13.38" | 13.50" | 13.50" |
| | B | 1.75" | 2.50" | 2.50" | 3.00" | 3.00" |
| DESIGN FACTOR | | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| MIN. WALL THICKNESS (C) | | .545" | .750" | .750" | 1.00" | 1.00" |
| SAFETY FACTOR AT C | | 2.70 | 3.94 | 3.94 | 5.77 | 3.46 |
| MIN. WALL THICKNESS (D) | | .875" | .970" | .970" | 1.22" | 1.22" |
| SAFETY FACTOR AT D | | 3.60 | 3.79 | 2.53 | 8.00 | 4.80 |
| MAX. WORKING PRESSURE | | 15,000 PSI | 10,000 PSI | 15,000 PSI | 6000 PSI | 10,000 PSI |
| TEST PRESSURE | | 22,500 PSI | 15,000 PSI | 22,500 PSI | 9,000 PSI | 15,000 PSI |



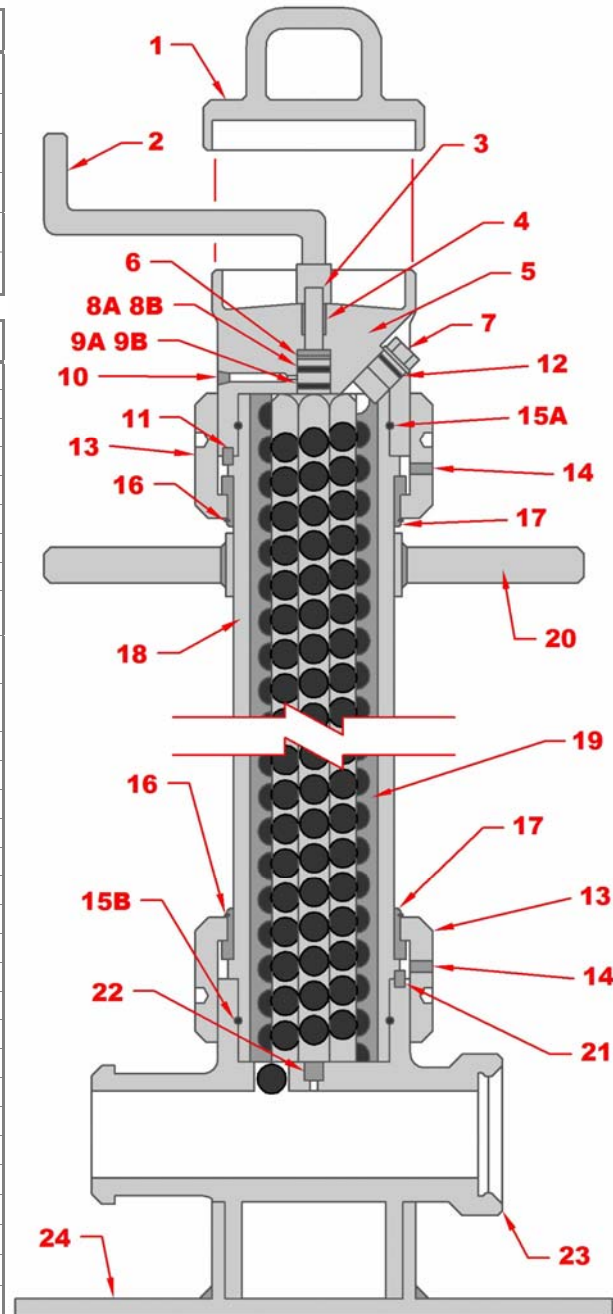
BALL INJECTOR

MODEL JHS-200

PARTS LIST

| SIZE | ASSEMBLY NUMBER |
|--------------|-----------------|
| 2" - 1502 | 200 - 215 |
| 3" - 1002 | 200 - 310 |
| 3" - 1502 | 200 - 315 |
| 4" - 602 | 200 - 406 |
| 4" - 1002 | 200 - 410 |
| * REPAIR KIT | 250 |

| ITEM # | PART # | QTY. | DESCRIPTION |
|--------|---------|--------|---------------------|
| 1 | 201 | 1 | LIFTING CAP |
| 2 | 202 | 1 | HAND CRANK |
| 3 | 203 | 1 | VANE SHAFT |
| 4 | 204 | 1 | BUSHING (TOP) |
| 5 | 205 | 1 | CONTAINER CAP |
| 6 | * 206 | 1 | THRUST BEARING |
| 7 | * 207 | 1 | PLUG |
| 8A | * 208-A | 2 | UPPER SHAFT O-RING |
| 8B | * 208-B | 2 | UPPER BACKUP O-RING |
| 9A | * 209-A | 2 | LOWER SHAFT O-RING |
| 9B | * 209-B | 2 | LOWER BACKUP O-RING |
| 10 | 210 | 1 | BLEEDING PLUG |
| 11 | 211 | 1 | CAP PIN |
| 12 | * 212 | 1 | PLUG O-RING |
| 13 | 213 | 1 | NUT |
| 14 | 214 | 2 | SET SCREW |
| 15A | * 215-A | 2 | UPPER CONT. O-RING |
| 15B | * 215-B | 2 | LOWER CONT. O-RING |
| 16 | 216 | 2 | SNAP RING |
| 17 | 217 | 2 SETS | SEGMENT |
| 18 | 218 | 1 | CONTAINER |
| 19 | 219 | 1 | SLEEVE |
| 20 | 220 | 1 | CARRY HANDLE |
| 21 | 221 | 1 | BASE PIN |
| 22 | 222 | 1 | BUSHING (BASE) |
| 23 | 223-215 | 1 | 2"-1502 BASE * |
| | 223-310 | 1 | 3"-1002 BASE * |
| | 223-315 | 1 | 3"-1502 BASE * |
| | 223-406 | 1 | 4"-602 BASE * |
| | 223-410 | 1 | 4"-1002 BASE * |
| 24 | 224 | 1 | PLATFORM |



* STRAIGHT BASES ALSO AVAILABLE



BALL INJECTOR

MODEL JHS-200

#250 REPAIR KIT

| PART # | DESCRIPTION | QTY |
|--------|--------------------|-----|
| 206 | THRUST BEARING | 1 |
| 207 | PLUG (OPTIONAL) | 1 |
| 208-A | UPPER SHAFT O-RING | 1 |
| 208-B | UPPER B-U O-RING | 1 |
| 209-A | LOWER SHAFT O-RING | 1 |
| 209-B | LOWER B-U O-RING | 1 |
| 212 | PLUG O-RING | 1 |
| 215-A | UPPER CONT. O-RING | 1 |
| 215-B | LOWER CONT. O-RING | 1 |

