

Magnum A-1, 1 3/4" Hydraulic Setting Tool Assembly

- Place all parts on clean and uncluttered surface for ease of inspection and assembly.
- Check all parts for defects and damage. Clean all threads and seal surfaces of rust, dirt, and burrs. If a part cannot be cleaned or repaired satisfactorily, replace it and set defective part aside for rework.
- Pre-assemble parts excluding O-Rings to insure proper machine work.
- Set aside proper O-Rings;
(16) 123 VITON 90 DURO for the internal sealing surface for the pistons.
(8) 118 VITON, 90 DURO for the cylinder rod.
- High temp grease should be used during assembly.
- Always check all sealing surfaces (pistons, o-ring grooves, and threads) are clean, free of debris and in good working condition.
- Upper Hydraulic Mandrel (Top Sub)**
Part #: 40.HSTC.134.0100
Place (2) 123 O-rings on the Upper Mandrel
Grease liberally with high temp assembly lube
- Upper Cylinder (Shear Sleeve)**
Part#: 40.HSTC.134.0200
Apply a thin layer of assembly lube on the inside of the Upper Cylinder to ensure o-ring damage does not occur.
Slide Upper Cylinder over the o-ring on the Upper Mandrel and continue until the Sheer screw holes align with the sheer groove.
Once in place install the four 3/8" – 16 x 3/8" brass sheer screws.
- Piston**
Part #: 40.HSTC.134.0300
Install the internal (2) (118) o-rings and apply a small amount of assembly lube.
Next install the exterior (2) (123) o-rings and apply assembly lube.
Once the piston is properly lubricated, it can be threaded into the Upper Cylinder.
Note: The piston should be installed with the external o-rings going into the upper cylinder
- Cylinder Rod**
Part #: 40.HSTC.134.0400
Install the (2) (123) o-rings into groove located at the bottom of the rod.
Apply assembly lube.
Apply a generous amount of assy. lube to the sealing (polished) surface of the rod.
Careful not to damage the internal o-ring of the piston, slide the rod through and thread into the Upper Hydraulic Mandrel.
- Rod Chamber**
Part #: 40.HSTC.134.0500
The Rod Chamber slides over the o-rings of the Cylinder Rod and thread onto the lower portion of the piston.
Apply assembly lube to the internal sealing surface to prevent o-ring damage.
Once completed gently push the Rod Chamber over the Cylinder Rod, and thread onto the piston.
- Piston**
Part #: 40.HSTC.134.0300
Install the internal (2) (118) o-rings and apply a small amount of assy. lube.
Next install the exterior (2) (123) o-rings and apply assy. lube.
Once the piston is properly lubricated, it can be threaded into the Upper Cylinder.
Note: The piston should be installed with the external o-ring going into the Upper Rod Chamber.
- Lower Cylinder Rod**
Part #: 40.HSTC.134.0400
Install the (2) (123) o-rings into groove located at the bottom of the rod.
Apply assy. lube
Apply a generous amount of assembly lube to the sealing (polished) surface of the rod.
Careful not to damage the internal o-ring, slide the rod through the piston and thread into the Upper Cylinder Rod.
- Lower Rod Chamber**
Part #: 40.HSTC.134.0500
The Rod Chamber slides over the o-rings of the Cylinder Rod and thread onto the lower portion of the piston.
Apply assembly lube to the internal sealing surface to prevent o-ring damage.
Once completed gently push the Rod Chamber over the Cylinder Rod, and thread onto the piston.
- Setting Sleeve Adapter**
Part#: 40.HSTC.134.0600
Install the external (2) (123) o-rings and the internal (2) (118) o-rings.
Apply assembly lube to both.
Thread the Setting Sleeve Adapter into the Lower Rod Chamber.
- Connector Rod**
Part #: 40.HSTC.134.0700
Apply a light layer of assy. lube to the sealing (polished) surface.
Slide Connector Rod through the Setting Sleeve Adapter. Then thread the Connector Rod into the Lower Cylinder Rod.
- Tension Rod Adapter**
Part #: 40.HSTC.134.0800
Thread the Tension Rod Adapter into the connector rod.