

### For Mineral Exploration - Deep Water Wells

The 3MB swivel is rugged, compact and dependable. Made of high-grade alloy steel, it has a high capacity proportionate to its weight. The packing unit consists of a stuffing box and Chevron V-Type packing. The entire packing assembly can be replaced within a few minutes without "breaking-out" any connection.

Built to "oil field standards," the swivel features an upper taper bearing, spherical roller main bearing and a lower radial ball bearing. A bearing adjusting nut is standard. This construction makes this swivel more dependable and more rugged than any existing swivel now offered by rig manufacturers.

Four large trunnion pins are provided for rigs equipped with pull-down yokes. Two-inch trunnion pins are standard. The 10 3/4" shoulder dimension of the pins allows replacement in existing rigs equipped with yokes.

### Features in Brief

- Large watercourse to permit circulating more drilling fluid
- Oil lubrication of bearings
- Oil seals to retain fluid and protect bearings
- Bearing adjusting nut
- Chevron packing and washpipe easily changeable without breaking connections

### Weight and Dimensional Data

Lower Connection (Kelly)	Weight lbs.	Length	Hose Connection	Diameter Watercourse*	Bail Opening
2 7/8" API IF LH pin	410	39 5/8"	3" NPT	2 1/8"	7" x 9"
3 1/2" API IF LH pin	410	39 5/8"	3" NPT	2 3/4"	7" x 9"

### Capacity and Safety Data

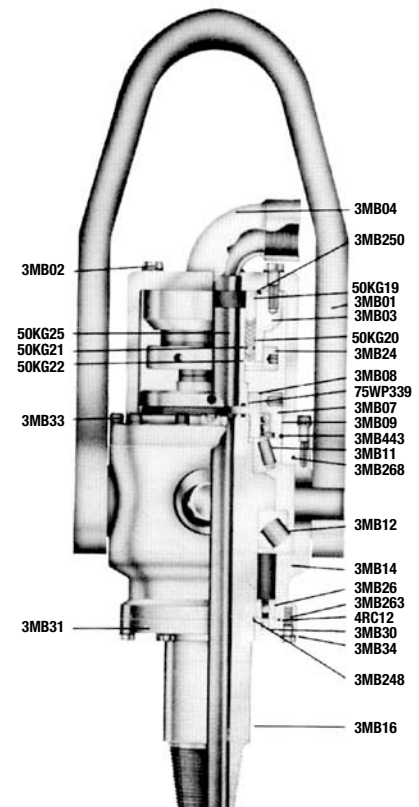
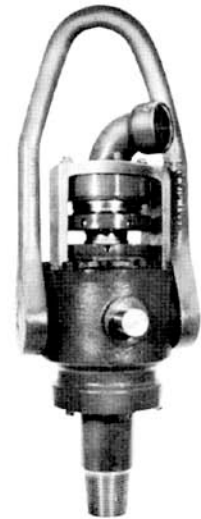
Capacity, lbs. at 100 R.P.M.	Static Load lbs.	Pulldown lbs.
60,000	100,000	30,000

### Safe Depths (Feet) with Drill Pipe

2 3/8" 6.65 lbs.	2 7/8" 10.4 lbs.	3 1/2" 13.3 lbs.	4 1/2" 16.6 lbs.
8,500'	5,500'	4,000'	3,500'

### Type 3MB Swivel and Parts

Part Number	Name of Part	Number Required	WT/lbs.
N3MB01	Bail	1	75
N3MB02	Packing Box Screws	4	1
N3MB03	Packing Box	1	12 1/2
N4RC250	Packing Box O-Ring	1	1/8
N3MB04	Bonnet	1	65
N3MB268	Lower Bonnet O-Ring	1	1/8
N3MB07	Upper Seal	2	1/2
N3MB08	Upper Bearing Nut	1	5
N3MB443	Adjusting Nut O-Ring	1	1/8
N3MB09	Bearing Adjusting Nut	1	7
N3MB11	Upper Bearing	1	12
N3MB12	Main Bearing	1	21
N3MB14	Bearing Housing	1	85
N3MB16	Swivel Stem	1	79
N50KG19	Packing Gland	1	2
N50KG20	Packing	1 set	1/2
N50KG21	Lantern Ring	1	1
N50KG22	Packing Seat Ring	1	1/2
N3MB24	Packing Adjusting Gland	1	8
N50KG25	Washpipe	1	5
N75WP339	Washpipe O-Ring	1	-
N4.5 SI26	Lower Alignment Bearing	1	4
N3MB27	Lower Seal	1	1/2
N3MB30R	Lower Bearing Nut	1	2 1/2
N3MB31	Lower Seal Box	1	9 1/2
N3MB263	Lower Seal Box O-Ring	1	1/8
N3MB33	Bonnet Socket Screws	10	1/2
N3MB34	Lower Seal Box Cap Screws	6	1/2
N3MB351	Lower Bearing Nut O-Ring	1	1/8



\*Watercourse size depends on tool joint size.