

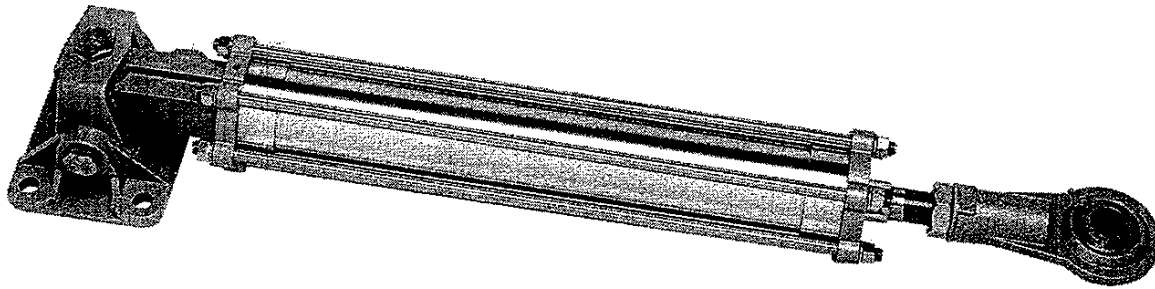


1074 Kenran Industrial Dr.  
St. Louis, MO 63137  
Phone: 1-800-381-9968

# HUMCO ENGINE CONTROLS

## Kobel Steering Cylinder

**KOBELT** MANUFACTURING COMPANY LIMITED



### MODEL 7085 3 1/2" Steering Cylinder

6

These cylinders are constructed entirely in bronze and stainless steel. They are available in a balanced or unbalanced configuration. If a single cylinder is not sufficient to provide the required rudder torque, it can be installed in a twin cylinder configuration whereby two plain cylinders can be installed with some means of synchronization control or using one servo-cylinder, our Model 7085-S acting as a master of the duo. The 7085 cylinder is rated at a maximum operating pressure of 1000 psi (69 bar) and is available in many stock lengths. The cylinder bore is 3-1/2" and the piston rod is 1-1/2" in diameter.

These cylinders are economically priced and will outperform any other product in the market place as far as durability and savings are concerned.

#### Ordering Information

7085-B Balanced Cylinder  
7085-U Unbalanced Cylinder

#### 7085 BALANCED CYLINDER

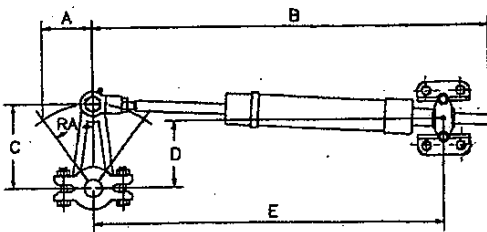
Stroke inches	Main Cylinder Displacement *	
	inch <sup>3</sup>	cm <sup>3</sup>
10	78.5	1286
12	94.2	1543
16	125.6	2058
20	157	2573

\* Displacement is based on one cylinder

#### 7085 UNBALANCED CYLINDER

Stroke inches	Main Cylinder Displacement **	
	inch <sup>3</sup>	cm <sup>3</sup>
10	174.8	2864
12	209.8	3438
16	279.7	4583
20	349.6	5729

\*\* Displacement is based on two cylinders



#### Balanced cylinder option

STROKE	TORQUE		A		B		C		D		E		
	in.	mm	lb-ft	kg-m	in.	mm	in.	mm	in.	mm	in.	mm	
10	254	4580	633	5	127	36.0	914	8.7	221	7.9	201	35.9	913
12	305	5560	769	6	152	40.0	1016	10.5	266	9.5	242	38.9	989
16	406	7400	1023	8	203	48.0	1219	14.0	354	12.7	322	44.9	1141
20	508	9200	1272	10	254	56.0	1422	17.4	443	15.9	403	50.9	1294

Torque is based on one cylinder at 1000 psi

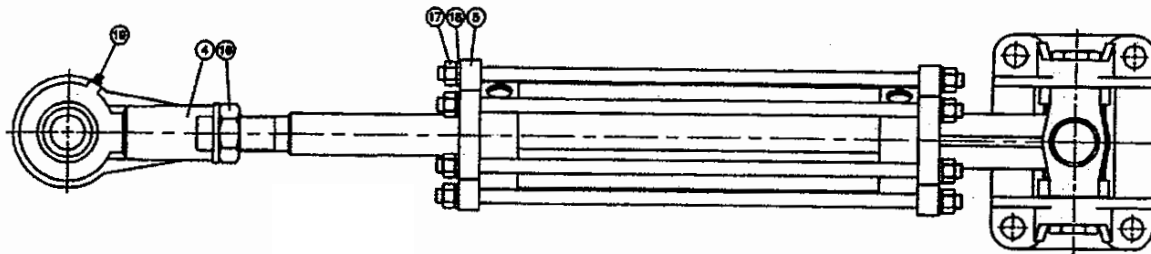


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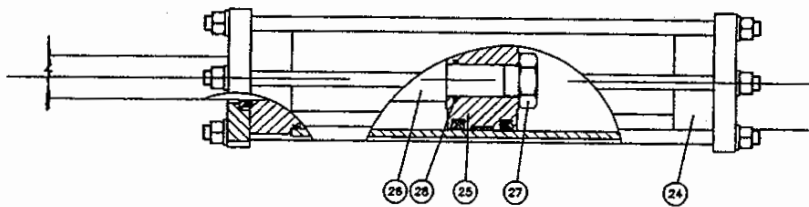
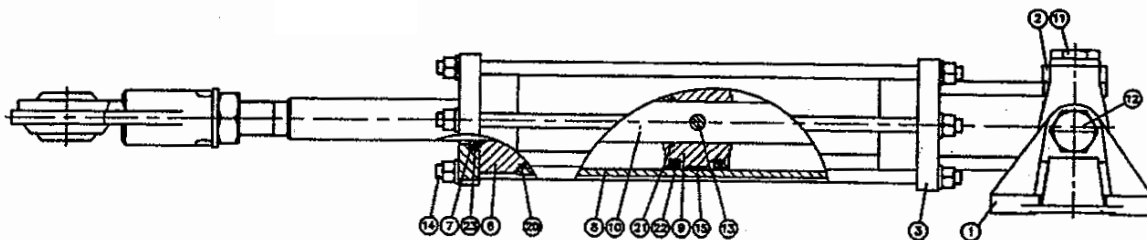
# HUMCO ENGINE CONTROLS

## Kobel Steering Cylinder

### MODEL 7085 PARTS LIST



Balanced Model



Unbalanced Model

ITEM	QTY	PART NUMBER	DESCRIPTION	ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	7085-0001	Foot	15	1	7085-0041	Wear Ring
2	1	7085-0002	Swivel	16	1	1022-0273	Hex jam nut
3	1	7085-0003	End cap - swivel end	17	12	1022-0164	Hex nut
4	1	7085-0004	Rod end	18	12	1023-0314	Lock washer
5	1	7085-0006	End cap	19	1	1501-0301	Grease nipple
6	2*	7085-0015	Main shaft guide	20	2	1101-0236	"O" ring
7	2	7085-0016	Seal retainer	21	1*	1101-0222	"O" ring
8	1	7085-0018	Main tube	22	2	1102-2037	"U" cup
9	1*	7085-0021	Main piston - bal	23	2	1102-2028	"U" cup
10	1*	7085-0022	Main piston rod - bal.	24	1*	7085-0038	Rod end cap - unbal.
11	2	7085-0028	Hex shoulder bolt (short)	25	1*	7085-0121	Main piston - unbal.
12	2	7085-0029	Hex shoulder bolt (long)	26	1*	7085-0122	Main piston rod - unbal.
13	1	7085-0031	Main piston pin	27	1*	1022-0270	Hex Nut
14	6	7085-0033	Main tie rod	28	1*	1101-0216	"O" ring

\* quantity varies with options