



# GREENLINE SERIES 2000 HYDRAULIC CYLINDERS

For Agricultural and Mobile  
Applications . . .

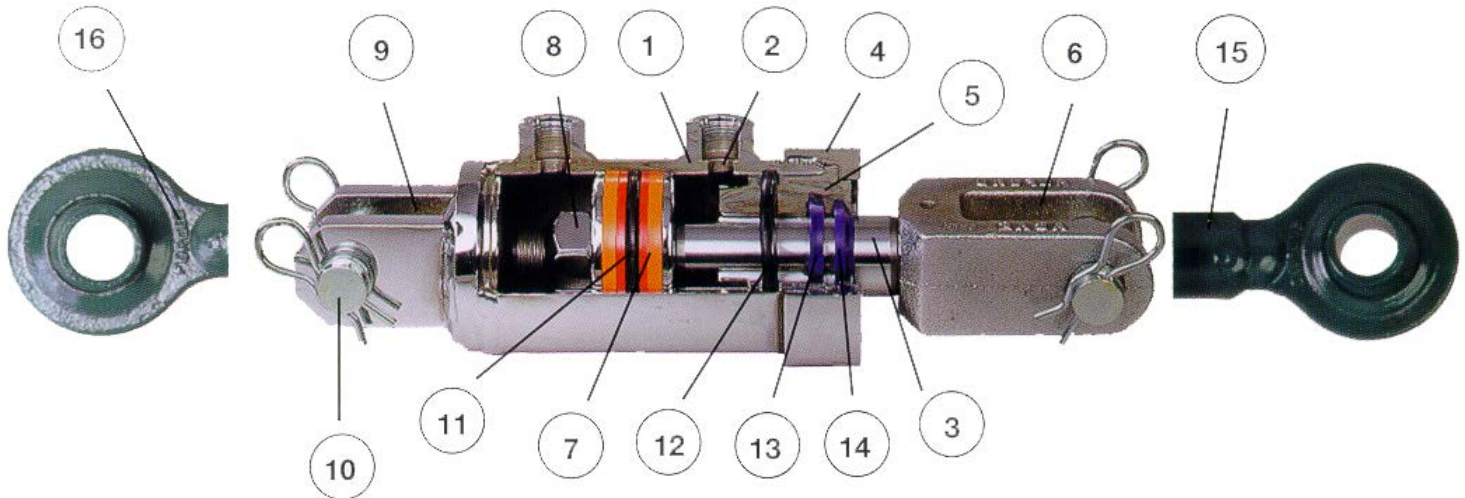


- \* Available in 1 1/2", 2", 2 1/2", 3", 3 1/2", 4" and 5" Bore.
- \* Standard strokes 2", 3", 4", 6", 8", 10", 12", 14", 16", 18", 20", 22", 24", 26", 28", 30", 42" and 48" depending on Bore size. Others on application.
- \* Large diameter Piston Rods for maximum strength.
- \* Working pressure up to 3000 p.s.i. [207 bar]. Varies According to Bore Diameter and length of Stroke.
- \* Manufactured to ASAE Standard.
- \* ALFORD Cylinders carry a two year Conditional warranty.



**HYDRAULIC CYLINDERS THAT WORK HARDER  
... LONGER**

## CONSTRUCTION FEATURES:

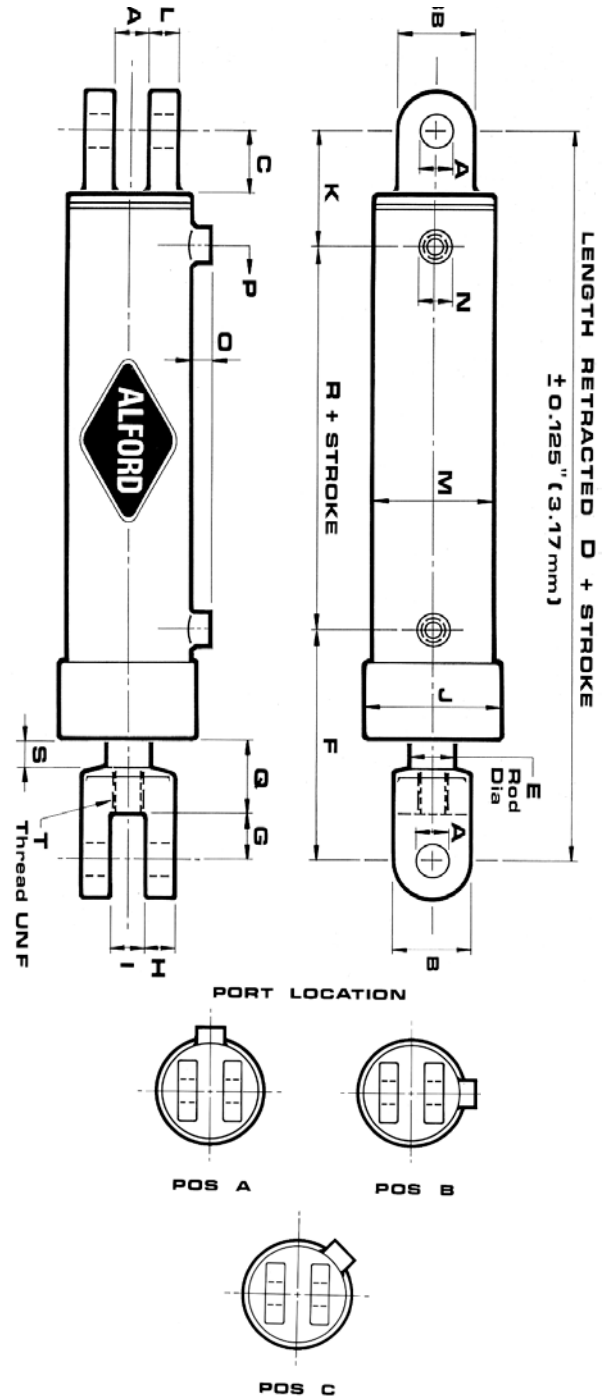


- 1. BARREL:** Cold drawn seamless tubing, micro honed for maximum seal life. Heavy wall thickness for high safety factor, A.I.S.I grade 1026. Threaded O.D. for cap nut.
- 2. PORTS:** SAE #8 3/4" UN O-ring steel ports are standard. Others on request.
- 3. PISTON RODS:** Cromax 280 precision ground hard chrome plated, minimum chrome deposit .001" [15um].
- 4. CAP NUT:** Threaded Cap Nut Gland Retainer for ease of maintenance. No special service tools required.
- 5. GLAND:** High strength S.G. [Spheroidal Graphite] Iron having excellent shock and fatigue resistance.
- 6. ROD CLEVIS:** Pearlitic Malleable Iron [S.G.] for high strength with excellent shock resistance.
- 7. PISTON:** Machined from steel, O-ring sealed to rod.
- 8. PISTON NUT:** Conelock type retaining nut.
- 9. CLEVIS END:** Fabricated steel.
- 10. CLEVIS PINS:** Zinc plated pins and clips supplied fitted to all cylinders. Standard pin is 1" O.D. [25.40mm] optional pin size 1.25" O.D. [31.75mm].
- 11. PISTON SEAL:** Hallite Tri Seal - consists of two Hytrel anti-extrusion rings and a Nitrile rubber sealing member giving efficient sealing with low friction. This seal includes two bearing rings avoiding any metal to metal contact. Pressure range 3750 psi [260 bar] @ .50 mtr. sec.
- 12. TUBE SEALS:** O-ring and back-up ring, 3/16" section [4.76mm] to seal tube to gland.
- 13. GLAND SEAL:** Single acting Hythane ® fluid seal rated to 6000 psi [414 bar].
- 14. ROD WIPER:** K-type rod wiper, double lip design for maximum internal protection.
- 15. TOPLINK ROD END:** Category 1 or 2 Forged Steel Ball Ends welded to Cromax 280 Piston Rod. Can be supplied with optional rod and base combinations. Category 3 available on request.
- 16. TOPLINK BASE END:** Category 1 or 2 Forged Steel Ball Ends. Refer to item 15 for options.  
\* Pins and clips NOT supplied.

**ALFORD CYLINDER COMPONENTS ARE MACHINED ON  
MODERN CNC MACHINES TO ENSURE ABSOLUTE PRECISION.**

# ALFORD GREENLINE CYLINDER DIMENSIONAL DATA

BORE DIA.	1.50" (38.10)	2.00" (50.80)	2.50" (63.50)	3.00" (76.20)	3.50" (88.90)	4.00" (101.60)	5.00" (127.00)
A	0.500" (12.70)	1.000" (25.40)	1.000" (25.40)	1.000" (25.40)	1.000" (25.40)	1.000" (25.40)	1.000" (25.40)
B	0.945" (24.00)	2.30" (50.80)	2.000" (50.80)	2.000" (50.80)	2.750" (70.00)	2.750" (70.00)	2.750" (70.00)
BB	0.984" (25.00)	1.570" (40.00)	1.970" (50.00)	1.970" (50.00)	2.560" (65.00)	2.560" (65.00)	2.560" (65.00)
C	1.000" (25.40)	2.000" (50.80)	2.000" (50.80)	2.000" (50.80)	2.000" (50.80)	2.000" (50.80)	2.000" (50.80)
D	8.00" (203.00)	12.250" (311.15)	12.250" (311.15)	12.250" (311.15)	12.250" (311.15)	12.250" (311.15)	12.250" (311.15)
E	0.750" (19.05)	1.250" (31.75)	1.500" (38.10)	1.500" (38.10)	1.750" (44.45)	1.750" (44.45)	2.000" (50.80)
F	4.375" (111.12)	6.500" (165.10)	6.500" (165.10)	6.500" (165.10)	6.500" (165.10)	6.500" (165.10)	6.500" (165.10)
G	1.00" (25.40)	2.25" (57.15)	2.25" (57.15)	2.25" (57.15)	2.25" (57.15)	2.25" (57.15)	2.25" (57.15)
H	0.413" (10.49)	0.6875" (17.46)	0.6875" (17.46)	0.6875" (17.46)	0.787" (20.00)	0.787" (20.00)	0.787" (20.00)
I	0.625" (15.87)	1.1875" (30.16)	1.1875" (30.16)	1.1875" (30.16)	1.187" (30.15)	1.187" (30.15)	1.187" (30.15)
IA	0.500" (12.70)	1.125" (28.58)	1.125" (28.58)	1.125" (28.58)	1.125" (28.58)	1.125" (28.58)	1.125" (28.58)
J	2.300" (58.40)	2.850" (72.40)	3.3000" (83.80)	3.930" (99.80)	4.600" (116.85)	5.150" (130.80)	6.200" (157.48)
K	2.250" (57.15)	3.47" (88.14)	3.47" (88.14)	3.47" (88.14)	3.47" (88.14)	3.47" (88.14)	3.47" (88.14)
L	0.400" (10.00)	1.400" (35.56)	0.470" (12.00)	0.625" (16.00)	0.785" (20.00)	0.785" (20.00)	0.785" (20.00)
M	2.000" (50.80)	2.500" (63.50)	2.875" (73.00)	3.500" (88.90)	4.000" (101.60)	4.500" (114.30)	5.500" (139.70)
N	0.875" (22.22)	1.125" (28.57)	1.250" (31.75)	1.250" (31.75)	1.250" (31.75)	1.250" (31.75)	1.250" (31.75)
O	0.590" (15.00)	0.750" (19.05)	0.750" (19.05)	0.750" (19.05)	0.750" (19.05)	0.750" (19.05)	0.750" (19.05)
P	9/16" UN (SAE #6)	3/4" UN (SAE #8)	3/4" UN (SAE #8)	3/4" UN (SAE #8)	3/4" UN (SAE #8)	3/4" UN (SAE #8)	3/4" UN (SAE #8)
Q	1.400" (35.56)	1.720" (43.70)	1.720" (43.70)	1.720" (43.70)	1.720" (43.70)	1.720" (43.70)	1.720" (43.70)
R	1.375" (34.92)	2.285" (58.04)	2.285" (58.04)	2.285" (58.04)	2.285" (58.04)	2.285" (58.04)	2.285" (58.04)
S	0.400" (10.16)	0.470" (12.00)	0.470" (12.00)	0.470" (12.00)	0.470" (12.00)	0.470" (12.00)	0.470" (11.94)
T	9.16" 18tpi	1" 12tpi	11/8" 12tpi	11/8" 12tpi	11/2" 12tpi	11/2" 12tpi	11/2" 12tpi

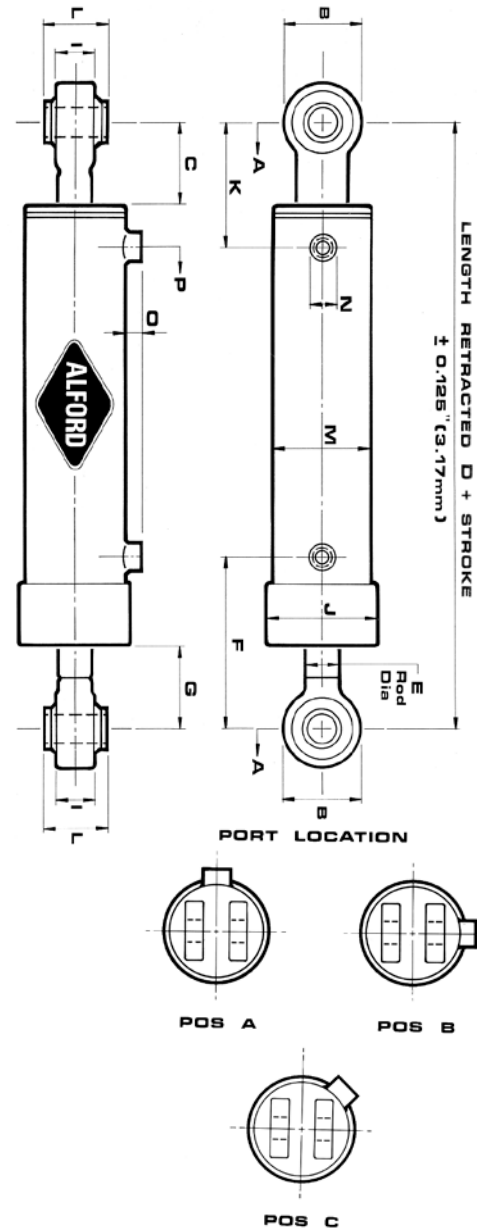


BORE		ROD DIAMETER		CYLINDER AREA		ANNULAR AREA		CYLINDER FORCE* - EXTENSION**									
								500 psi (34.5 bar)		1000 psi (69.0 bar)		1500 psi (103.40 bar)		2000 psi (138.0 bar)		2500 psi (172.40 bar)	
in	mm	in	mm	in <sup>2</sup>	mm <sup>2</sup>	in <sup>2</sup>	mm <sup>2</sup>	lbf	kgf	lbf	kgf	lbf	kgf	lbf	kgf	lbf	kgf
1.50	38.10	0.75	19.05	1.767	1140	1.325	855	883	401	1767	801	2650	1202	3534	1602	4417	2003
2.00	50.80	1.25	31.75	3.141	2027	1.914	1235	1570	712	3141	1424	4711	2136	6282	2849	7852	3561
2.50	63.50	1.50	38.10	4.908	3167	3.141	2027	2454	1113	4908	2226	7362	3339	9816	4451	12270	5564
3.00	76.20	1.50	38.10	7.068	4560	5.301	3420	3534	1603	7068	3206	0602	4809	14136	6412	17670	8015
3.50	88.90	1.75	44.45	9.621	6207	7.216	4655	4810	2182	9621	4364	14431	6546	19242	8728	24052	10910
4.00	101.60	1.75	44.45	12.566	8107	10.161	6555	6283	2850	12566	5700	18849	8550	25132	11400	31415	14250
5.00	127.00	2.00	50.80	19.635	12668	16.493	10641	9817	4453	19635	8906	29452	13359	39270	17813	49807	22266

\* Actual forces will be approximately 90% of given features due to friction and leakage.

# ALFORD TOPLINK CYLINDER DIMENSIONAL DATA

BORE DIA.	2.00" (50.80) CAT 1	2.00" (50.80) CAT 2	2.50" (63.50) CAT 1	2.50" (63.50) CAT 2	3.00" (76.20) CAT 1	3.00" (76.20) CAT 2
A	0.750" (19.05)	1.000" (25.40)	0.750" (19.05)	1.000" (25.40)	0.750" (19.05)	1.000" (25.40)
B	1.125" (54.00)	2.950" (75.00)	2.125" (54.00)	2.950" (75.00)	2.125" (54.00)	2.950" (75.00)
C	2.000" (50.80)	2.437" (61.90)	2.000" (50.80)	2.437" (61.90)	2.000" (50.80)	2.437" (61.90)
D	12.250" (311.15)	12.250" (311.15)	12.250" (311.15)	12.250" (311.15)	12.250" (311.15)	12.250" (311.15)
E	1.250" (31.75)	1.250" (31.75)	1.500" (38.10)	1.500" (38.10)	1.500" (38.10)	1.500" (38.10)
F	6.500" (165.10)	6.062" (154.00)	6.500" (165.10)	6.062" (154.00)	6.500" (165.10)	6.062" (154.00)
G	3.975" (101.00)	3.537" (90.00)	3.975" (101.00)	3.537" (90.00)	3.975" (101.00)	3.537" (90.00)
I	0.470" (12.00)	0.630" (16.00)	0.470" (12.00)	0.630" (16.00)	0.470" (12.00)	0.630" (16.00)
J	2.850" (72.40)	2.850" (72.40)	3.300" (83.80)	3.300" (83.80)	3.930" (98.80)	3.930" (98.80)
K	3.468" (88.00)	3.905" (99.15)	3.468" (88.00)	3.905" (99.15)	3.468" (88.00)	3.905" (99.15)
L	1.750" (44.45)	2.000" (50.80)	1.750" (44.45)	2.000" (50.80)	1.750" (44.45)	2.000" (50.80)
M	2.500" (63.50)	2.500" (63.50)	2.875" (73.02)	2.875" (73.02)	3.500" (88.90)	3.500" (88.90)
N	1.125" (28.57)	1.125" (28.57)	1.250" (31.75)	1.250" (31.75)	1.250" (31.75)	1.250" (31.75)
O	0.750" (19.05)	0.750" (19.05)	0.750" (19.05)	0.750" (19.05)	0.750" (19.05)	0.750" (19.05)
P	3/4" UN (SAE #8)	3/4" UN (SAE #8)	3/4" UN (SAE #8)	3/4" UN (SAE #8)	3/4" UN (SAE #8)	3/4" UN (SAE #8)



Alford reserves the right to change specifications contained herein, in the interest of product improvement, without prior notification. Alford gives you Australia wide distribution. Working through our Branch Offices and Dealer Network we are able to bring Alford quality and service to far away places, Call or Fax:

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