

BESSER

VH SPLITTER

**VERTICAL/HORIZONTAL
CONCRETE SPLITTING MACHINE**

CATALOG NO. VHS-9302

Price \$50.00 U.S.A.

BESSER Company, P.O. Box 336, 801 Johnson St., Alpena, Michigan, 49707 U.S.A.

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VH SPLITTER

VERTICAL/HORIZONTAL CONCRETE SPLITTING MACHINE

SPECIFICATIONS

VERTICAL/HORIZONTAL SPLITTING CAPACITY UP TO - 24" Wide x 12" High x 18" Long

- FRAME:** Steel/welded fabrication.
Materials meet or exceed ASTM A36.
- MOTOR:** 25 H.P. - 460 Volt - 3 Phase - 29 Amps.
- PUMP:** 1811 R.P.M. (18.6 kw.) at 1500 P.S.I. (1.06 kgs./mm²) maximum - 7.7 in.³/R, (195.6 mm³/R). Working pressure 450 P.S.I. (.32 kgs./mm²).

HYDRAULIC CYLINDERS:

- 8" (203.2 mm) diameter at 6" (152.4 mm) stroke.
- Working pressure 22,500 lbs. (10,206 kg.) at:
450 PSI (.32 kgs./mm²) Pump Pressure.
- Maximum Load 75,000 lbs. (34,020 kg.) at 1500 P.S.I.,
(1.06 kgs./mm²) Pump Pressure.

AIR CYLINDER:

- 4" (101.6 mm) diameter at 24" (609.6 mm) stroke.
- Working pressure = 95 P.S.I. (.0668 kgs./mm²).

CONTROL: Allen Bradley SLC-150.
TCAT LED Timer Display.

MACHINE CYCLE SPEED:
5.5 Seconds vertical and horizontal.

NOTE: *Changing the machine from vertical to horizontal or vice versa, can be accomplished in a minimum amount of time. All electrical, hydraulic and air connections are quick disconnects.*

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LOGIC: 453242, ELEMENTARY: 453243, REV - 5/26/93 (Program Listing)	18-56
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BESSER VERTICAL-HORIZONTAL SPLITTER

INSTALLATION

Align bar conveyor with depalleter and move Splitter to depalleter plate, but allow room for flipper plate to operate. Put guides on Depalleter to assure block go between guides on Splitter.

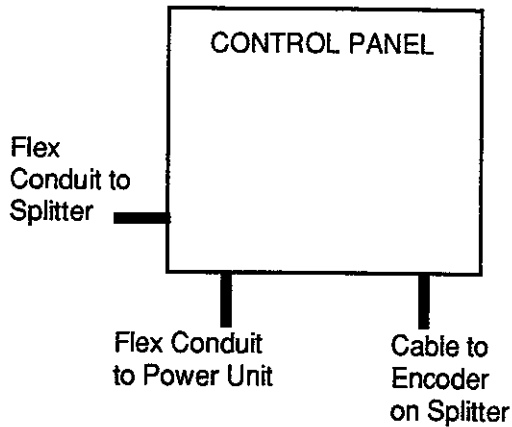
Level roller conveyor with Depalleter plate. Mount LS-6 so it is tripped only when Depalleter is moving back and is behind flipper plate. Mount output gravity conveyor to exit end and slope so units will roll away from Splitter.

Mount P.E.R.-8 on run-out conveyor; to shut down Splitter when conveyor is full. Connect electrical and hydraulic power to sketch as shown in the following pages. **(CHECK FOR PROPER VOLTAGE SET-UP)**

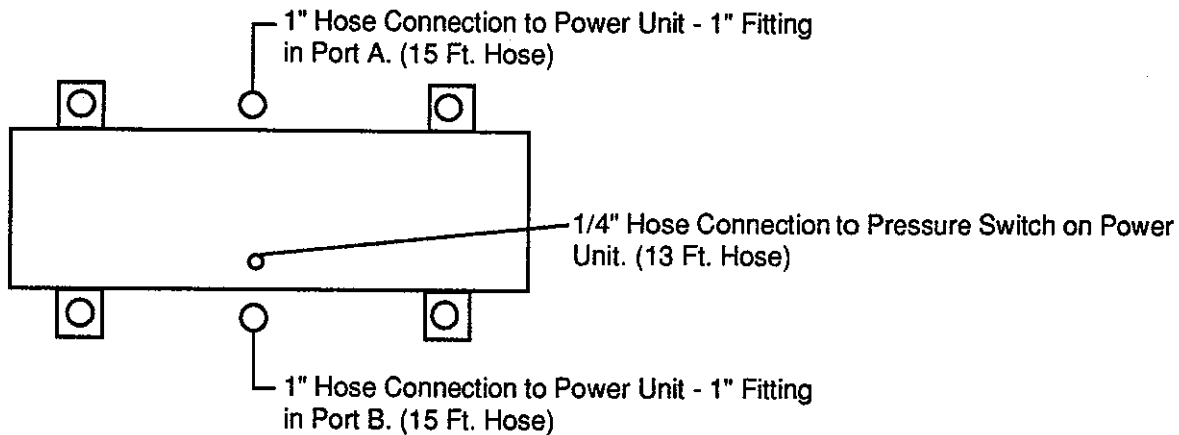
Depalleter interlock only provides Depalleter start signal. Depalleter circuit must maintain to complete cycle.

BESSER VERTICAL-HORIZONTAL SPLITTER

ELECTRICAL & HYDRAULIC CONNECTIONS

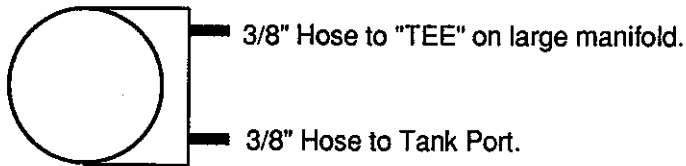


Connect wires matching terminal strip in Power unit and wires from Splitter to terminals in Control panel. Plug in encoder cable and lock in place. Not all wires in conduit are used.

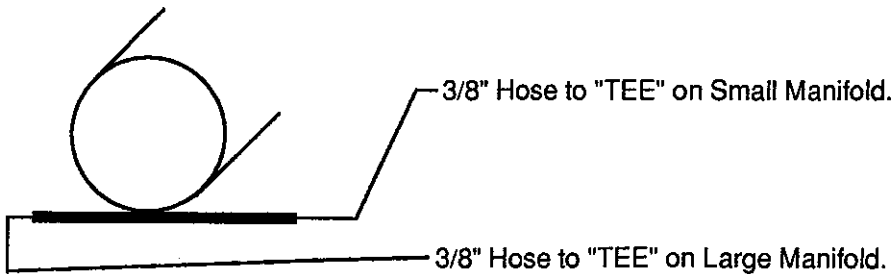


OUT CONVEYOR

TO: Hydraulic Power Unit



IN CONVEYOR

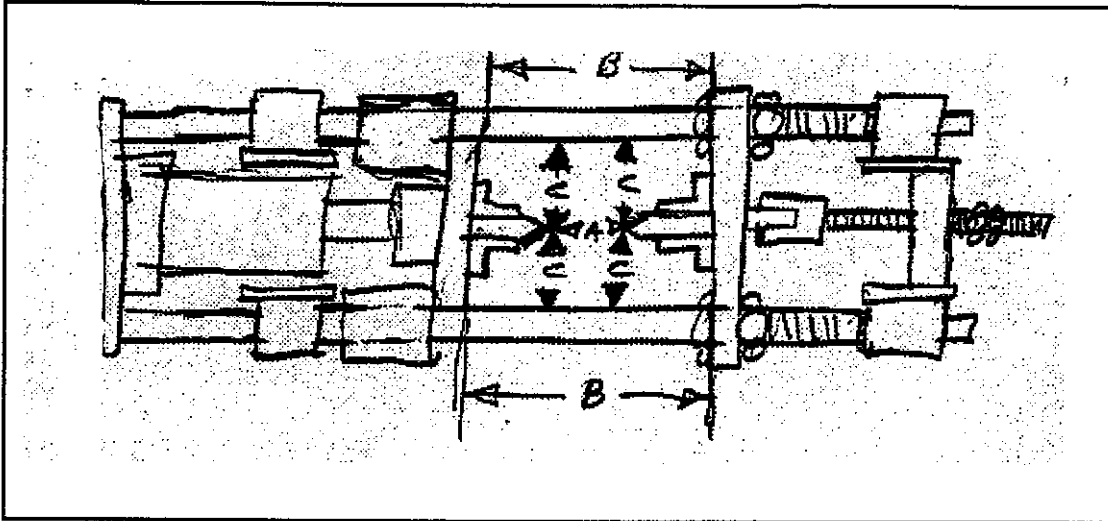


BESSER VERTICAL-HORIZONTAL SPLITTER

SET UP: HORIZONTAL SPLITS

SPLITTING ASSEMBLY:

MAIN KNIVES: Adjust blade mount to center blade edge between Guide Rods on both assemblies. Adjust blade plate parallel with nuts.



SIDE KNIVES: Align blade edge to Main Knives with Jack screws on assembly. Align center of cylinder to center of unit. See chart for Dimensions.

CHART	
A =	
B =	
C =	

TABLE: TOP STOP

Adjust table height with crank to give desired Split location. Then adjust top stop to touch top of unit. Adjust level of table using 2 Jack Screws on output side of table. Adjust block guides to center units between blades.

CONVEYOR BAR, STOP ADJUSTMENTS

Adjust low speed forward to 10 feet per minute. Adjust DTAM N7: 1 to 3000. Run in AUTO until table starts to raise, then shut off and lockout. Measure from front of pusher bar to center of table. Measure to closest too inch, ie., 28-3/8" = 2838. Subtract 3000 from measured value and change N7:24 by difference.

Increase value of N7:24 if positive.
Decrease value of N7:24 if negative.

Set N10: to "0" to use N7:1>2 for unit location on table. N7:3>6 must be zero for horizontal splits.

N10:11>242 For stored split memory.

Unit locations may need to be fine tuned by adjusting N7:1 and/or 2 and N10: last digit 1 and/or 2.

BESSER VERTICAL-HORIZONTAL SPLITTER

VERTICAL OPERATION

Remove jumper to INII. Adjust main blade edge 1/8" below support table.

Mount vertical support spring and spacer on top threaded rod. Use existing nuts to adjust length of springs to 3-3/4" with blades out. Lock double nuts.

Install side knife springs and adjust to stop side knives from tipping down. Lock in place.

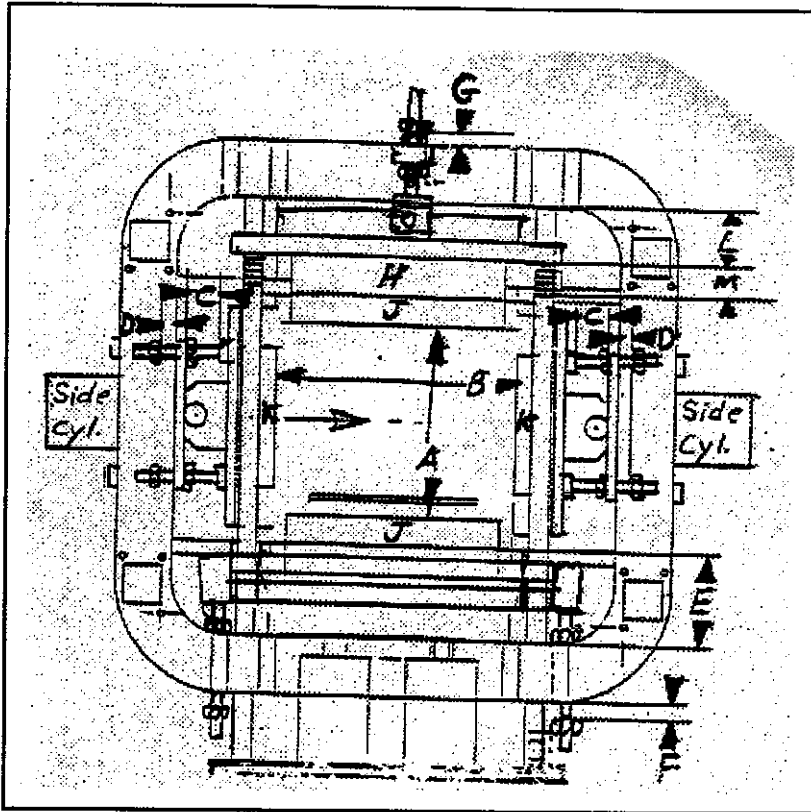
Adjust DTAM N7:1>6 for split location or adjust ACCEPT MEMORY N10:11>246.

1 to 6 splits per cycle can be made all dimensions are from front of pusher bar to center of blade. **DO NOT adjust split distance to less than 350 as this may interfere with bar home switch.**

N7:0 Reads front of pusher bar to center of table in Horizontal mode to center of blade in Vertical mode.

BESSER VERTICAL-HORIZONTAL SPLITTER

HORIZONTAL ADJUSTMENTS



Center side cylinders on unit. Make sure blades don't touch when full in.

Center Units "B".

All dimensions taken with knives out, except "A" and "B" which are taken after all adjustments are make and knives are in as a check.

SIZE	8 x 24"	12 x 24"	16 x 24"	16 x 16	
A	7"	11"	15"	15"	Dimensions with blades in.
B	23"	23"	23"	15"	Dimensions with blades in.
C	3-7/8"	3-7/8"	3-7/8"	6-3/8"	Side knife out stop.
D	1-7/16"	1-7/16"	1-7/16"	1-7/16"	Side knife in stop.
E	11-1/4"	9-3/8"	9-3/8"	9-3/8"	Inside frame to mount surface.
F	1-1/8"	1-1/8"	1-1/8"	1-1/8"	Main knife stop in.
G	1-1/8"	1-1/8"	7/8"	7/8"	Passive knife in stop.
H	11"	6"	6"	6"	Passive knife spacer.
J	2-11-1/4 x 4-1/4"	2-11-1/4 x 4-1/4"	2-11-1/4 x 4-1/4"	2-7-1/4 x 4-1/4"	Blade main knives.
K	1-7-1/4 x 4-1/4"	1-11-1/4 x 4-1/4"	2-7-1/4 x 4-1/4"	2-7-1/4 x 6"	Blade side knives.
L	5-3/8"	9-1/8"	5-3/8"	5-3/8"	Inside frame to mount surface.
M	4-3/4"	1"	4-3/4"	4-3/4"	End of thread to mount surface.

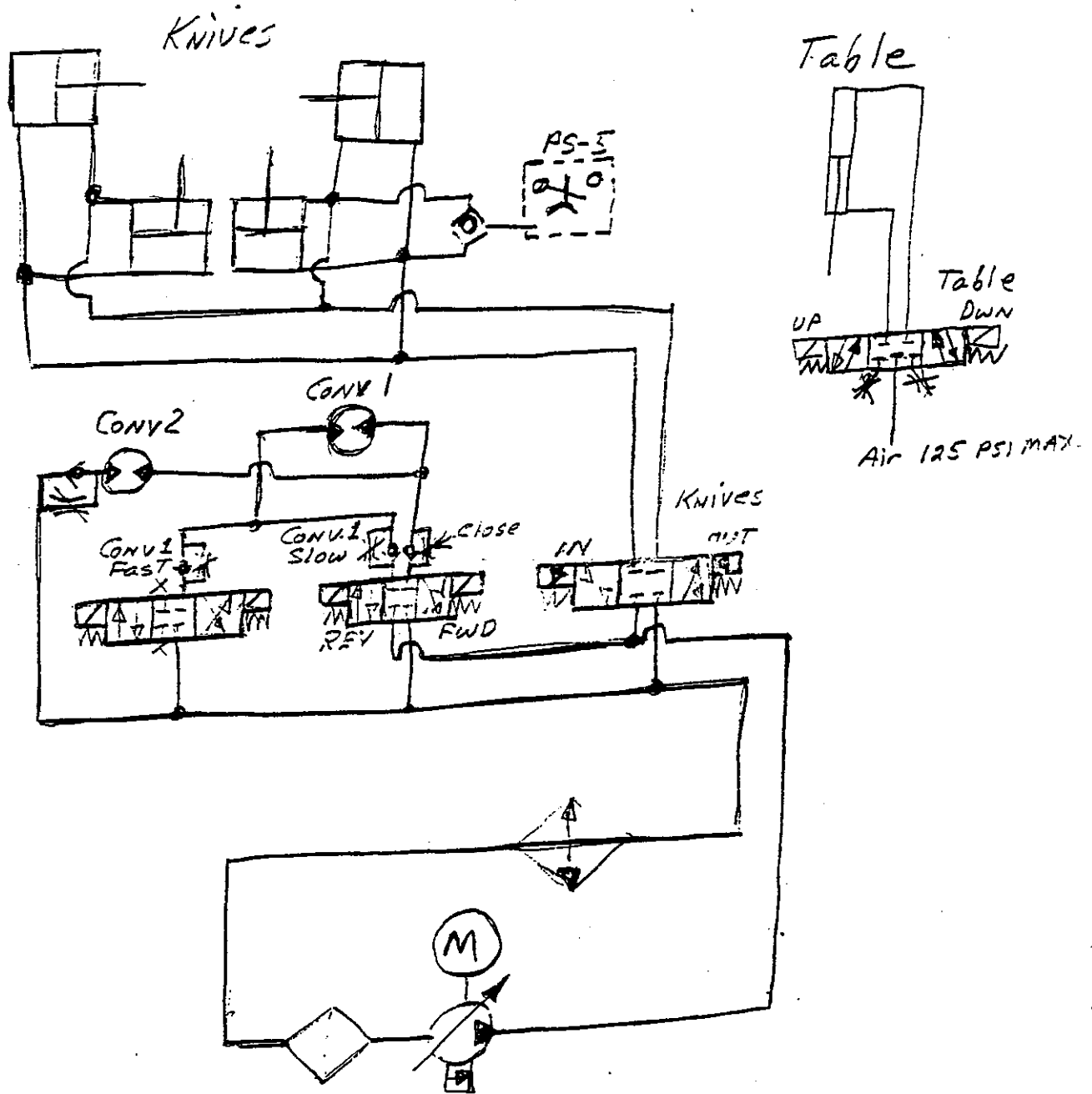
BESSER VERTICAL-HORIZONTAL SPLITTER

DTAM SETTINGS

Logic No. 453242 - 26 May 93

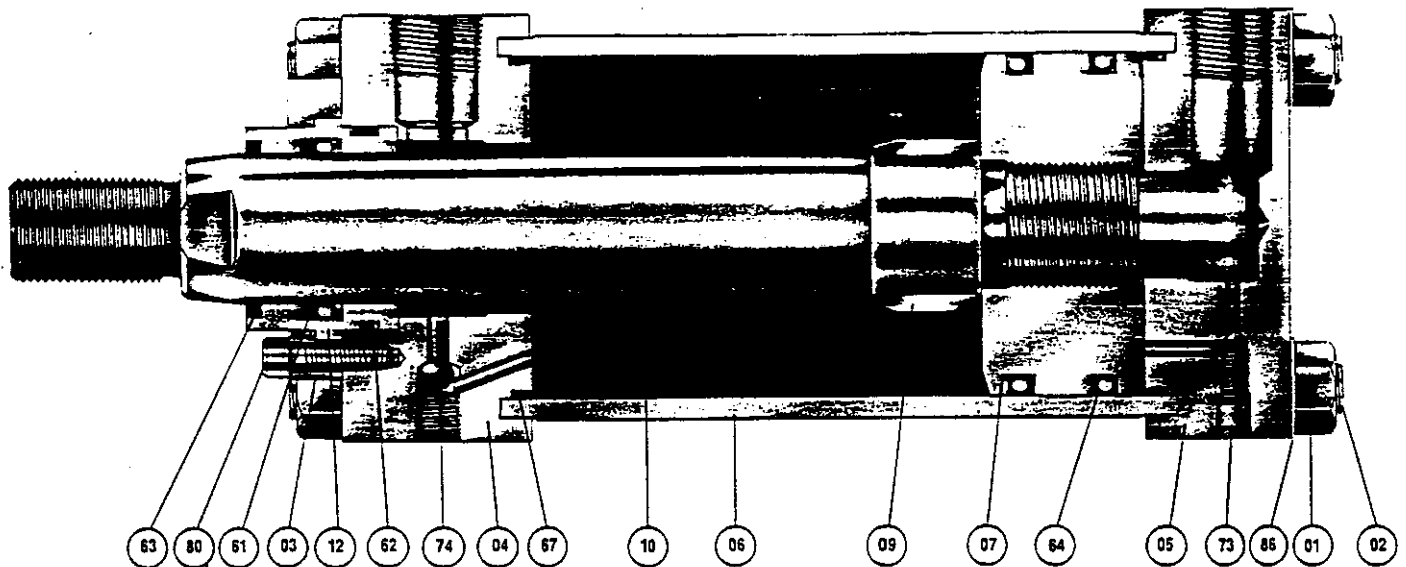
INTEGER	PRESET	NOTE	
N7:	0	Pusher bar location from centerline in 1/100th inches.	
	1	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">Vertical or Horizontal</div> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">Vertical Only</div> <div style="margin-left: 20px;"> Split location form bar in hundredths of an inch ie; 3000 = 30.00. </div> </div>	
	2		
	3		
	4		
	5		
	6		
	11	100	Pusher bar reverse count; Vertical onl.
	12	10	Early shutoff to compensate for hydraulics.
	13	100	Slow speed count before stop.
	20		Accumulated valve high speed counter.
	21		Current high speed counter value.
	22		Actual encoder count.
	23		Scaled encoder count in 1/100th of an inch.
	24	4000	Total pusher bar travel in 1/100th of an inch.
	25		Pusher bar position with offset.
	26		Pusher bar position to back up to.
	27		Pusher bar position with offset and slow count.
N10:	0	Recipe: 0 use N7d:1>24 use N10: Recipe No. + Split No.	
	11>241	Vertical or	Example: Recipe 17, Split 2, 12"
	12>242		
	13>243	Vertical Only	Display Counter Value
	14>244		N10: 17 2
	15>245		Recipe No. _____
	16>246		Split No. _____
			1200 └──────────┘ 12.00 inches
Timers			Time Base .01 seconds.
T4:	0	30	Holds counter active after conveyor off.
	1	20	Delay sensing PS-5 make during knife in.
	2	30	Delay sensing PS-5 off during knife in.
	3	40	Delay sensing PS-5 make during knife out.
	4	400	Delay sensing PER-8 (Conveyor full).
	5	100	Delays pusher bar at home in manual.
	6	20	Delays pusher bar reverse in auto.
	7	300	Time knives stay in if no split dedected .
	8	100	Time for PS-5 to release.

BESSER VERTICAL-HORIZONTAL SPLITTER



SERIES "H"

ATLAS CYLINDER CORPORATION



PARTS LIST

- | | |
|-----------------------------------|--|
| 01. Tie Rod Nut | 61. Rod Seal |
| 02. Tie Rod | 62. Cartridge O.D. Seal
('O' Ring & Back-up) |
| 03. Retainer Plate | 63. Rod Wiper |
| 04. Rod Head | 64. Piston O.D. Seal |
| 05. Cap Head | 67. Barrel Seal ('O' Ring) |
| 06. Cylinder Barrel (Honed Steel) | 73. Adjustable Cushion Assembly |
| 07. Piston | 74. Cushion Check Assembly |
| 09. Rod End Cushion Sleeve | 80. Retainer Plate Capscrews |
| 10. Piston Rod | 86. Hardened Washer |
| 12. Rod Bearing Cartridge | |

Cylinder Repair Kit Contents

ITEMS 12-61-62-63-64-67

IMPORTANT

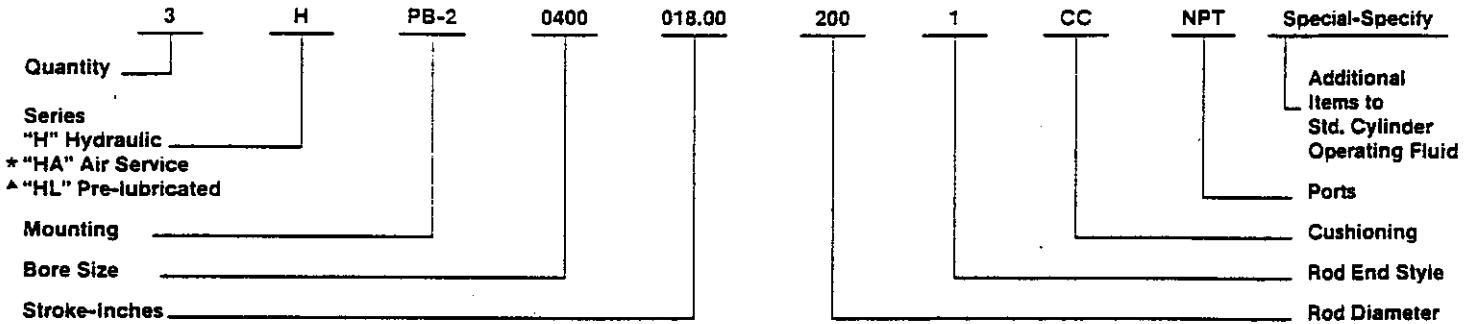
To speed the handling of orders for parts or repair kits, please specify:

1. Cylinder serial number
2. Cylinder bore diameter
3. Stroke
4. Piston rod diameter
5. Operating medium

ATLAS CYLINDER CORPORATION

SERIES "H"

**ENTERING YOUR ORDER OR INQUIRY FROM THIS CATALOG
HOW TO ORDER — CODE PROCEDURE**



Be sure to always include Serial No. when ordering replacement parts.

**ATLAS CYLINDER CORPORATION
"H" SERIES CYLINDER CODING SYSTEM**

MOUNTING		BORE DIAMETER	STROKE	ROD DIAMETER	CUSHIONING	PORTS
ME5	FS	0150 : 1½"	XXX.XX	062 : 5/8"	CR : Cushioned Rod End	NPT
ME6	MP2	0200 : 2"	(INCHES)	100 : 1"	CT : Cushioned Cap End	SAE
IH3	NM0	0250 : 2½"		138 : 1½"	CC : Cushioned Both Ends	
IH4	NM1	0325 : 3¼"		175 : 1¾"	NC : Non Cushioned	
PB2	NM2	0400 : 4"		200 : 2"		
PB1	NM3	0500 : 5"		250 : 2½"		
SA	DRE	0600 : 6"		300 : 3"		
TM1	REF1	0700 : 7"		350 : 3½"		
TM2	REF2	0800 : 8"		400 : 4"		
TM3	BEF1	1000 : 10"		450 : 4½"		
SL	BEF2	1200 : 12"		500 : 5"		
CL				550 : 5½"		
				700 : 7"		
				800 : 8"		
				850 : 8½"		

ROD END STYLE

- 1 : Standard Male
- 2 : Oversize Male
- 3 : Female
- 4 : Special
- 5 : Safety Coupler
- 6 : Stub End

SPECIAL: SPECIFY

****"HA" THE ATLAS HYDRAULIC FOR AIR SERVICE**

Specify "HA" when ordering, the cylinder will be ready for air service with a chrome plated barrel I.D.

Specify ^"HL" for air service PRE-LUBRICATED.