4911-106

H25 & H50 SERIES Hydraulic Shears

Operating Instructions & Parts List

July 18, 2001

Wysong & Miles Company

P.O. Box 21168 · Greensboro, NC 27420
Phone: 336-621-3960 Fax: 336-375-6187

HEAVY DUTY ANTI-TRIP FOOT SWITCH

1. ⚠ **WARNING: TO AVOID PERSONAL INJURY, DO NOT USE THIS SWITCH ON MACHINERY WITH AN UNGUARDED POINT OF OPERATION.**

   ⚠**READ WARNING STATEMENT** on reverse side of this page.

2. When wiring up this device make sure **POWER IS OFF AND LINES ARE DEAD.**

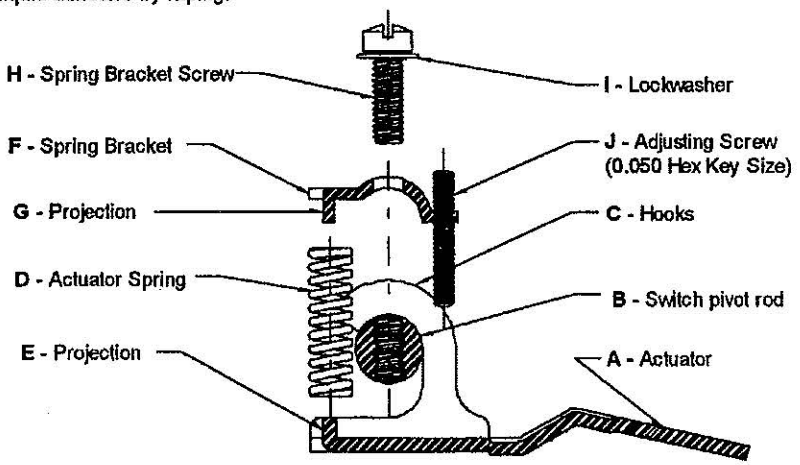
3. This device is for use in ordinary locations, **TYPE 2, 4 and 13** and intended to be permanently connected by means of conduit, flexible cord or other system in accordance with the **NATIONAL ELECTRICAL CODE.**
   When wiring up this device with flexible cord an **UNDERWRITERS LABORATORIES LISTED** liquidtight connector **MUST BE** provided. Use appropriate pipe thread sealant at assembly to seal connector threads. When threading into the conduit opening, **CARE** must be taken to tighten the threaded joint sufficiently to prevent loosening but should **NOT BE FORCED.** The conduit threads should be kept clean; free from dirt and foreign materials that would hinder proper installation.

4. **MODELS 511-B & 511-B3** are supplied with non-adjustable actuating mechanism. Factory set to operate approximately 3/4 treadle stroke.

5. **MODELS 511-B2 & 511-B4** are supplied with right interior switch with non-adjustable actuating mechanism. Left interior switch with an adjustable actuating mechanism, set at factory to operate as Double-Pole Double-Throw.

   SPECIAL NOTE:
   In many applications it is highly desirable to wire the Normally Closed Circuit to the adjustable left switch and the Normally Open Circuit to the non-adjustable right switch. In such a case the 511-B2 can then be adjusted to have the Normally Closed Circuit remake near the top of the treadle release stroke. **EXAMPLE:** This means that in a press control circuit, the operator must go through a substantial portion of the treadle release stroke before he can reset the control circuit for another operation.

6. **TO CHANGE ADJUSTMENT** of the operating point of the left interior switch, depress the treadle to the point where you want the switch to operate. With the treadle depressed to the desired operating point, turn the adjusting screw until the switch snaps.
   Turn clockwise to lower the operating point and counter-clockwise to raise it.
   Apply Loctite Corporation Threadlocker Adhesive #290 (or equivalent) penetrating low-viscosity anaerobic liquid adhesive to adjusting screw "J" after changing adjustment.
   Avoid applying an excessive amount of the liquid adhesive to prevent migration.
   Remove excess liquid adhesive by wiping.



7. Tighten the cover screws such that an effective seal is obtained with the gasket. Tighten to 30 to 35 in—lb. (3.4 to 4.0 Nm); two tightenings required.

8. **CLEANLINESS** must be observed during installation and in use.

   On a **REGULAR BASIS,** lubricate the treadle pivot rod with one or two drops of lubricating oil on that portion of the pivot rod that extends between the outside of the base and inside of the treadle; two places.

   On a **REGULAR BASIS,** inspect foot switch frequently to guard against wear, damage, unlawful alterations or removal of guards, or for unusual enclosure deterioration and the like. Inspect the entire length of the connecting cord (or wiring system) from where it enters the foot switch to the equipment its wired up to for wear, loose strain relief connections and the like. **DO NOT OPERATE** the foot switch if any of the above is observed or if the nameplate or warning labels have been obscured or removed.

   It is **IMPERATIVE** that inspection authorities and users exercise more than ordinary care with regard to installation and maintenance and that this information sheet be made available to the end user, operators, maintenance personnel and to others responsible for the proper installation and safe operation of this foot switch.

   ADDITIONAL COPIES of this information sheet and warning labels are available upon request.

Form 534-W6 Rev. G

⚠ WARNING

USE OF FOOT CONTROLS ON MACHINERY LACKING EFFECTIVE POINT OF OPERATION SAFEGUARDS CAN CAUSE SERIOUS INJURY TO THE OPERATOR.

Foot controls should only be used where "Point of Operation" and "Pinch Point" guarding devices have been properly installed and are utilized so that it is **IMPOSSIBLE** for the operator's hands or fingers to remain within the point of operation during the machine cycle.

IT IS THE RESPONSIBILITY OF THE USER to determine the suitability of a foot control for the user's intended use and to determine that the foot control chosen by the user and wiring up and installation of the same will comply with all Federal, State and Local safety and health regulations and codes.

Due to the unlimited variety of business equipment, instruments, machines and vehicles on which our foot switches are used, the thousands of standards, and customers' varying interpretations of the standards covering these applications, it is impossible for **LINEMASTER** personnel to be experts on standards and requirements for all these products. We offer over 150 stock foot switch models and guards plus a large variety of specials which are made to customer specifications. We can advise you what is available in our foot switch line and you can examine models to see what meets your needs. We believe our customers' engineering departments should the qualified experts in their own product field and know what specifications or details they require in a foot switch for their equipment. If one of our stock models meets their needs, they can specify it, or possibly ask for a modification of a stock model if that is required.

SHOULD YOU HAVE ANY QUESTIONS OR IF ANY OF THE ABOVE WARNING IS UNCLEAR, PLEASE CALL LINEMASTER SWITCH CORPORATION.

(860) 974-1000; FAX (860) 974-0691 OR (800) 974-3668.

READ INSTRUCTIONS on reverse side of this page.

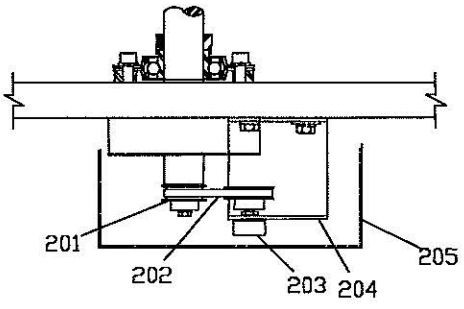
DEFINITIONS:

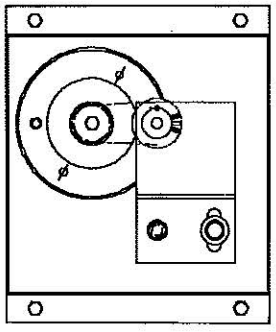
POINT OF OPERATION - The point or area of the machine or equipment where the work piece or material is actually positioned and work is being performed during any process such as cutting, shearing, punching, forming, welding, riveting, assembling, etc..

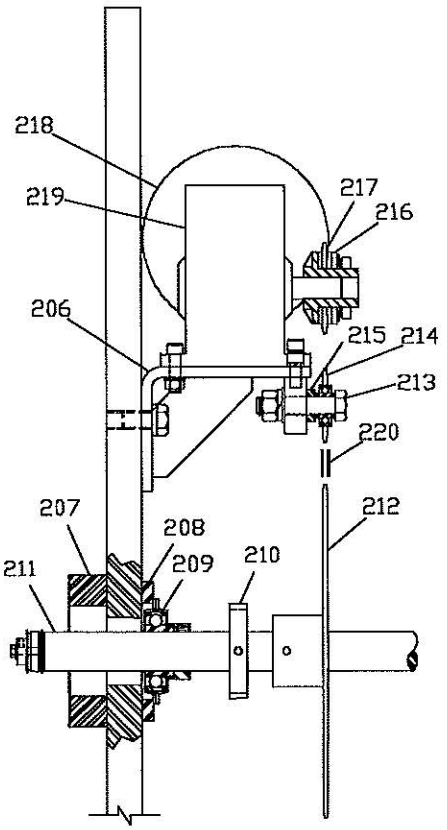
PINCH POINT - Any point at which it is possible for a portion of the body to be caught and injured between moving machine or equipment or work piece parts.

H50 SERIES POWER BLADE GAP ADJ.

ITEM	DESCRIPTION	H-25 SERIES	H-50 SERIES
201	Pulley, timing (shaft end)	3415-004	3415-004
202	Belt, timing	3413-063	3413-063
	Pulley, timing (potentiometer)	3415-217	3415-217
203	Potentiometer	3956-502	3956-502
204	Bracket, potentiometer (top)	6490-428	6490-428
	Bracket, potentiometer (bottom)	6490-429	6490-429
205	Cover, potentiometer	6290-199	6290-199
206	Bracket, mounting	6290-196	6290-196
207	Boss, hub guide	6490-082	6490-082
208	Ring, bearing support	516.04.10.000.00	516.04.10.000.00
209	Bearing, 2-bolt flange	3146-420	3146-420
210	Pinion, gap adjustment	6490-051	6490-223
211	Shaft, gap adjustment	6490-061 (10 ft) 6490-079 (12 ft)	6490-297 (10 ft) 6490-345 (12 ft)
212	Sprocket, driven	6290-113	6290-113
213	Screw	3308-081	3308-081
214	Sprocket, idler	3412-130	3412-130
215	Washer, idler sprocket	7416-383	7416-383
216	Torque limiter	3412-282	3412-282
	Bushing	3412-284	3412-284
217	Sprocket	3412-283	3412-283
218	Motor	4403-063	4403-063
219	Reducer	3436-123	3436-123
220	Chain	3430-035	3430-035







HYDRAULIC UNIT

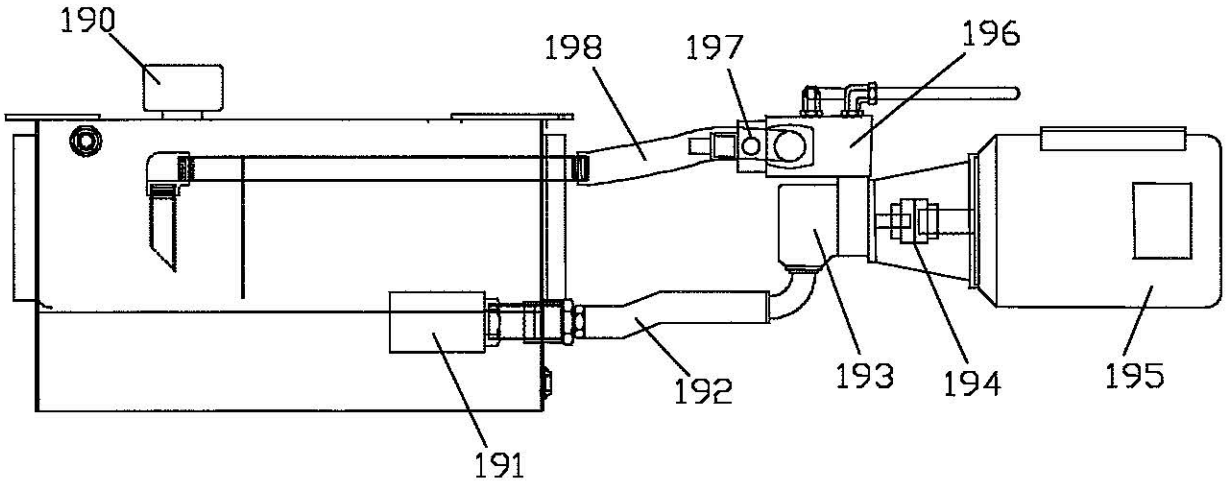
ITEM	DESCRIPTION	H-25 SERIES	H-5010 SERIES	H-5012 SERIES
190	Breather, filler	3202-100	3202-100	3202-100
191	Filter, suction	3764-295	3764-296	3764-296
192	Hose, hydraulic	3898-708	3898-657	3898-657
193	Pump	3257-126	3257-132	3257-132
	Flange	3257-073	3257-064	3257-074
194	Coupling, pump	3428-216	3428-223	3428-135
	Insert, coupling	3428-217	2428-222	2428-134
	Coupling, motor	3428-218	3428-220	3428-150
195	Motor (230 / 460 volt)	4428-053	4432-014	4434-014
		20 Hp	30 Hp	40 Hp
196	Manifold	3773-661	3773-661	3773-661
197	Valve, 4-way	3759-281	3759-281	3759-281
	Valve, cartridge	3760-040	3760-040	3760-040
	Cover, valve solenoid	3760-341	3760-341	3760-341
198	Hose, return	3898-655	3898-656	3898-656

Main Pressure:
To check main hydraulic pressure, remove Allen plug from the rear facing side of aluminum manifold and screw in a gauge and hose assembly. The pressure port is threaded 7/16-20 UNF.

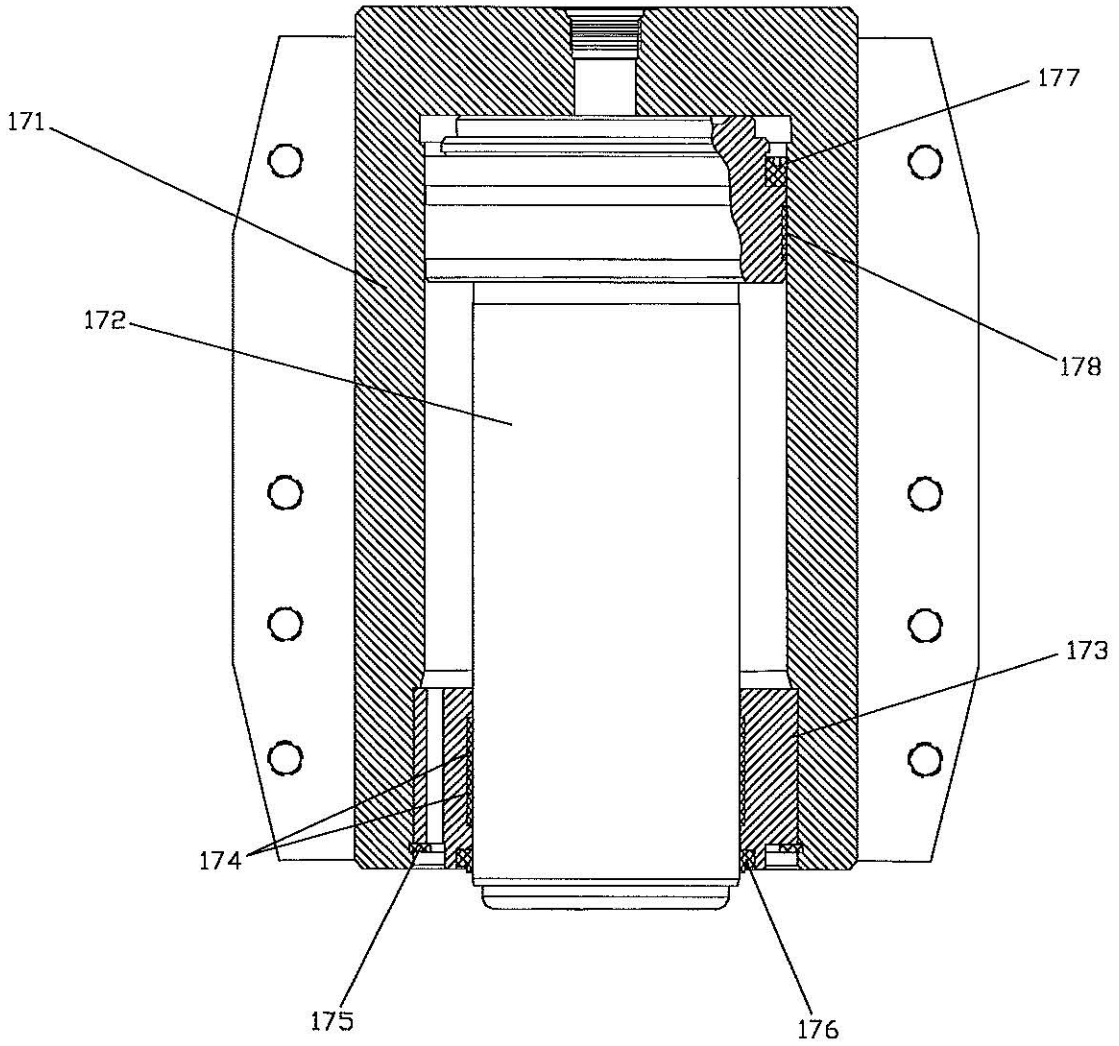
Remove plastic cover from cartridge valve in sub-plate on side of manifold. Adjust this valve for correct pressure.

Bring ram down on _ inch or _ inch plate to stall out ram. Tape the top of stroke switch up so ram will return.

Pressures: H-25, 2900 psi
H-50, 3700 psi



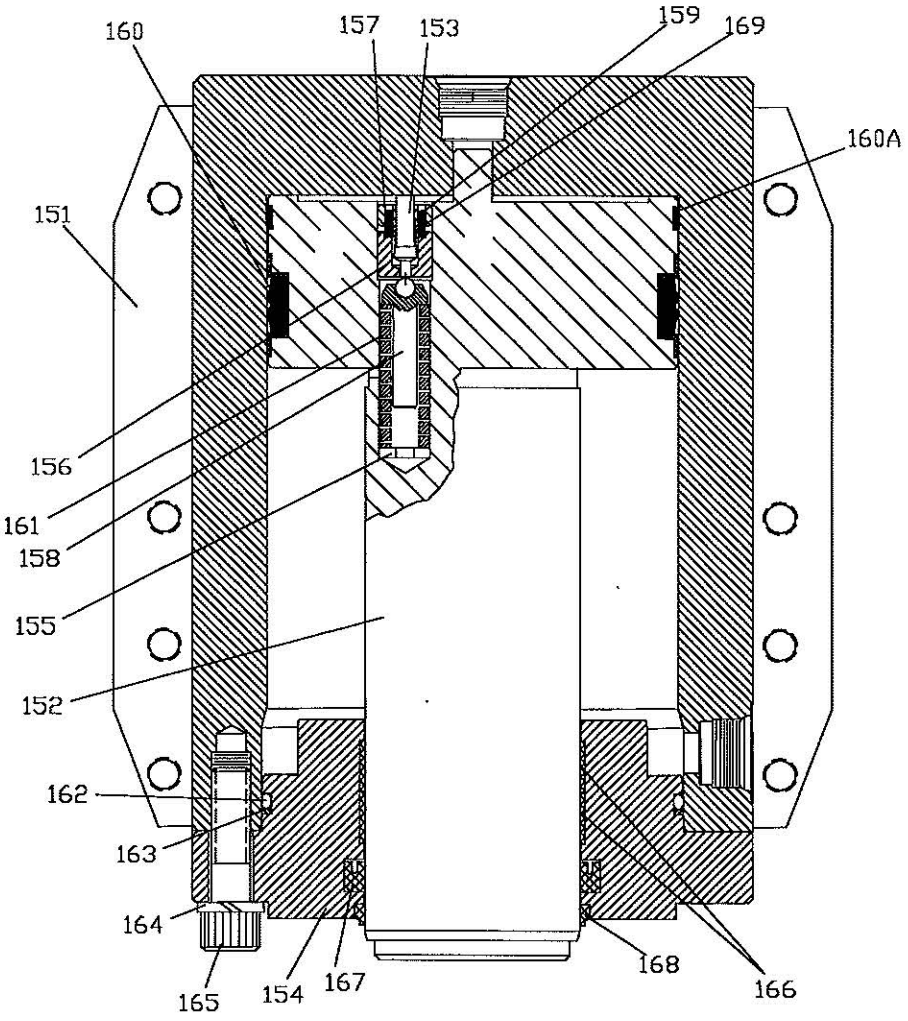
H-50 SERIES, SLAVE CYLINDER ASSEMBLY



Assembly – 6390-036

ITEM	DESCRIPTION	H-50 SERIES
171	Cylinder, R.H. Slave	6290-136
172	Piston, R.H.	613.14.11.000.00
173	Cap, rod	6490-317
174	Bearing, rod	3188-039
175	Ring, ametric internal	3351-626
176	Wiper, rod	3211-736
177	Seal, piston	3211-811
178	Bearing, piston	3188-035

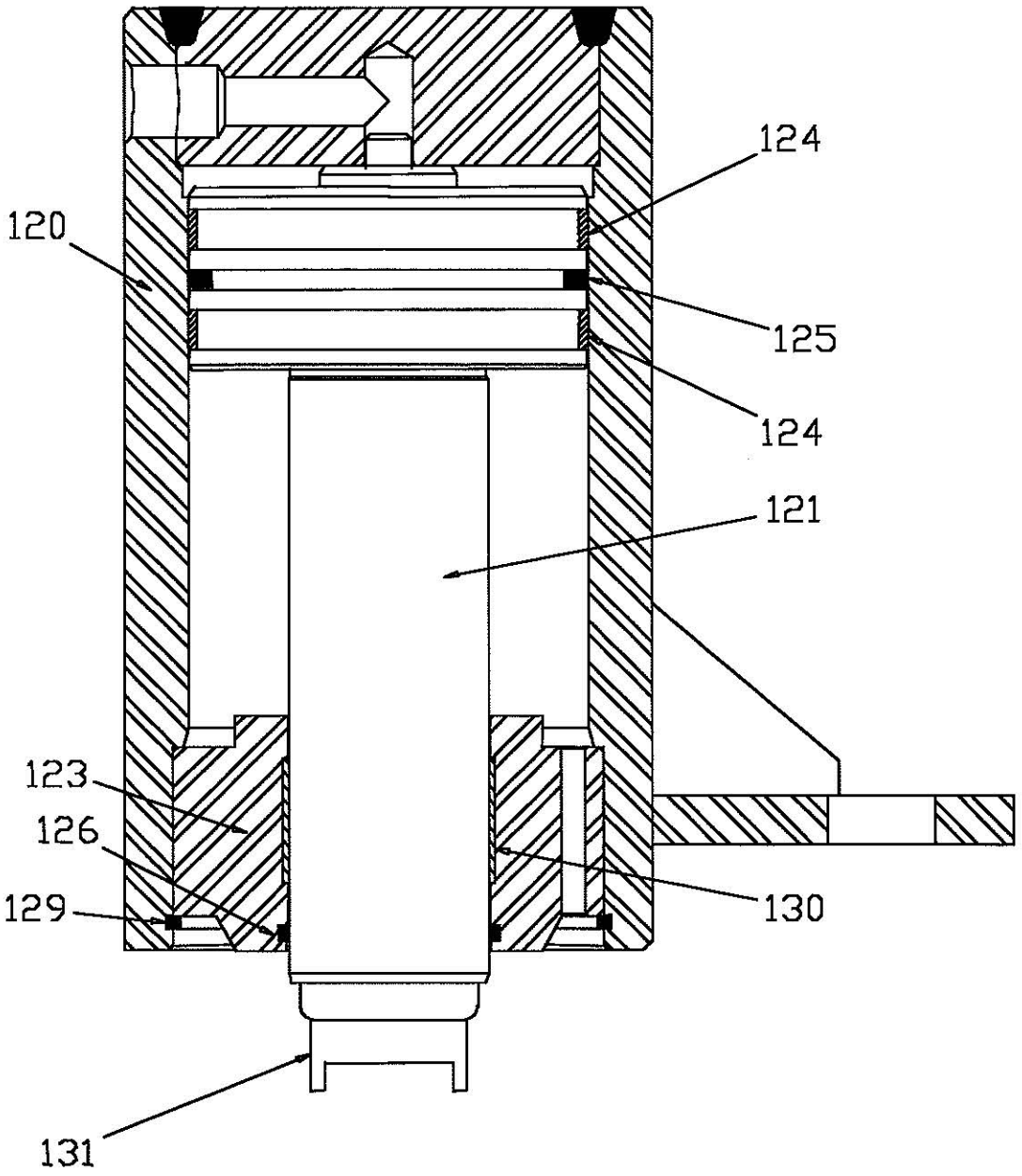
H-50 MAIN CYLINDER ASSEMBLY



Assembly – 6390-037

ITEM	DESCRIPTION	H-50 SERIES	ITEM	DESCRIPTION	H-50 SERIES
151	Cylinder, L.H. Main	6290-139	161	Spring, ball valve	3510-137
152	Piston, L.H.	6490-393	162	O-Ring	3255-234
153	Plunger	616.14.13.003.00	163	Backup O-Ring	3255-434
154	Cap, rod	6490-316	164	Washer, lock	3327-012
155	Washer	616.14.13.006.00	165	Screw, _-10 SHC	3303-164
156	Seat, ball	616.14.13.004.00	166	Bearing, rod	3188-038
157	Plug, locking	616.14.13.005.00	167	Seal, rod	3211-812
158	Assembly, ball valve	6390-022	168	Wiper, rod	3211-735
159	Screw, #8-32 SHC	3306-007	169	Spring, ball seat	3510-052
160	Seal, piston	3211-809			
160A	Bearing, rod	3188-012			

H-25 SERIES CYLINDER ASSEMBLIES



H-25 SERIES CYLINDER ASSEMBLIES

RIGHT HAND, MAIN CYLINDER ASSEMBLY - 6390-066

ITEM	DESCRIPTION	H-25 SERIES
120	Body, L.H. cylinder	606.14.23.000.00
121	Piston	6490-450
122		
123	Cap, rod	6490-446
124	Slydring, piston	3211-892
125	Seal Assembly	3211-894
126	Wiper Assembly	3211-889
127		
128		
129	Ring, ametric internal	3351-620
130	Slydring, rod	3211-891
131	Block, cylinder / ram	6490-452*

* Block is custom fit - consult Wysong

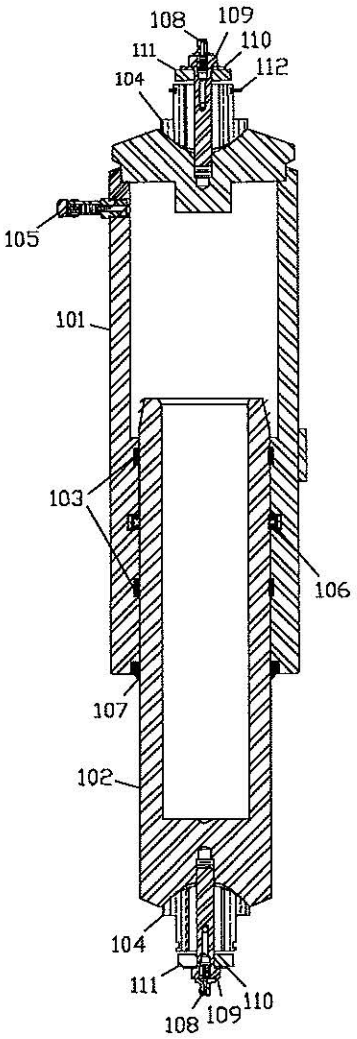
LEFT HAND, SECONDARY CYLINDER ASSEMBLY - 6390-067

ITEM	DESCRIPTION	H-25 SERIES
120	Body, L.H. cylinder	606.14.27.000.00
121	Piston	6490-451
122		
123	Cap, rod	6490-448
124	Slydring, piston	3211-893
125	Seal Assembly	3211-895
126	Wiper Assembly	3211-899
127		
128		
129	Ring, ametric internal	3351-605
130	Slydring, rod	3211-891
131	Block, cylinder / ram	6490-452*

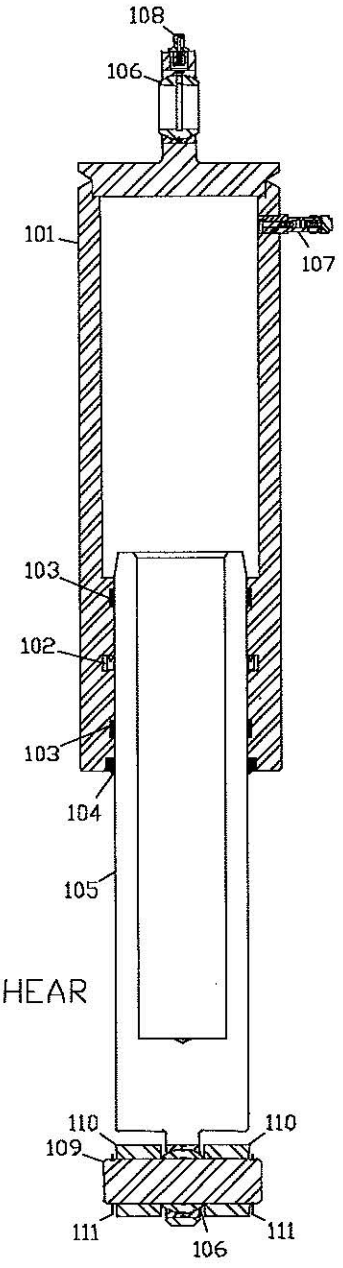
* Block is custom fit - consult Wysong

NITROGEN RETURN CYLINDER

ITEM	DESCRIPTION	H-25 SERIES	DESCRIPTION	H-50 SERIES
	Assembly – 6390-061		Assembly – 6390-062	
101	Housing, cylinder	6290-223	Housing, cylinder	6290-224
102	Piston, return cylinder	004.15.11 .000.00	Seal assembly	3211-885
103	Ring, wear	3188-045	Ring, wear	3188-045
104	Joint, self-aligning	6490-415	Wiper, rod	3211-733
105	Valve, tank	3822-093	Piston, return cylinder	6490-416
106	Seal assembly	3211-885	Bearing, self-aligning	3130-010
107	Wiper, rod	3211-733	Valve, tank	3822-093
108	Fitting, grease	3306-022	Fitting, grease	3206-050
109	Bolt, safety	6490-413	Pin, top support	6490-421
110	Washer, flat	3328-007	Ring, snap	3351-032
111	Washer, white neoprene	6490-414	Support, cylinder top	6490-418
112	Ring, snap	3351-039		



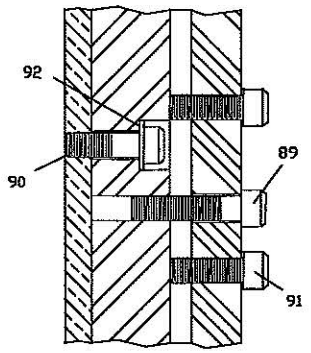
H-25 SHEAR

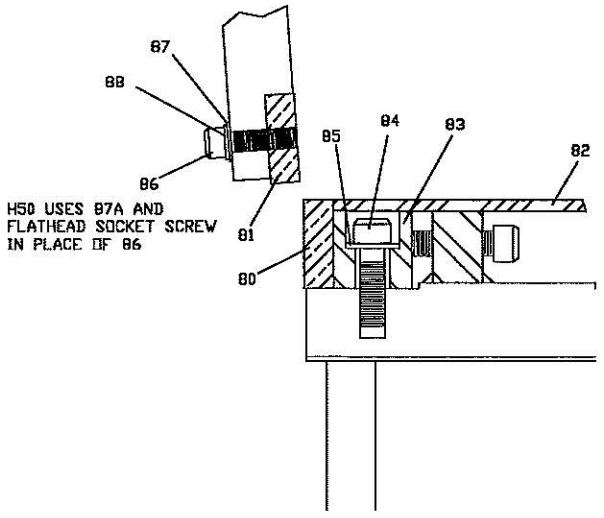


H-50 SHEAR

BLADE DETAIL

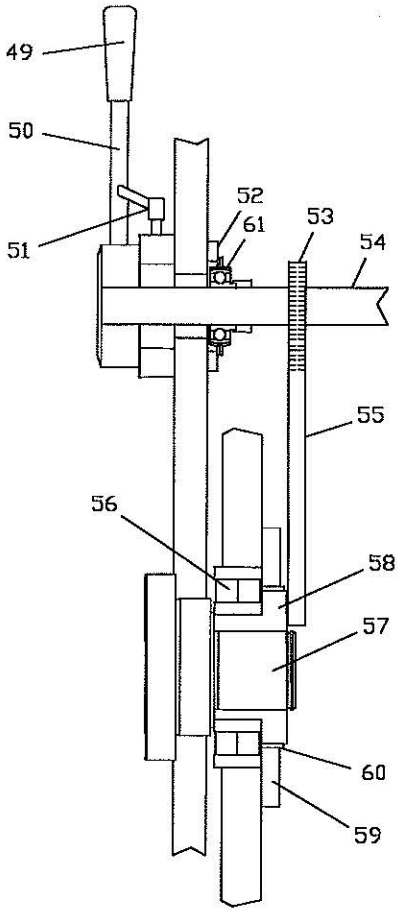
ITEM	DESCRIPTION	H-25 SERIES	H-50 SERIES
80	Blade, bed	4762-201 (10 ft) 4762-261 (12 ft)	4720-696 (10 ft) 4720-776 (12 ft)
81	Blade, ram	4760-201 (10 ft) 4760-261 (12 ft)	4724-696 (10 ft) 4724-776 (12 ft)
82	Bolster, cover (H-25)	6490-367 (10 ft) 6490-373 (12 ft)	
	Cover, right (H-50)		6490-286 (10 & 12 ft)
	Cover, center (H-50)		6490-287 (10 ft) 6490-344 (12 ft)
	Cover, left (H-50)		6490-288 (10 & 12 ft)
83	Bolster, table blade	6490-366 (10 ft) 6490-374 & 375 (12 ft)	6490-361 (10 ft) 6490-360 (12 ft)
84	Screw	3303-146	3303-154
85	Washer	6490-057	3328-145
86	Screw	3303-737	3305-193
87	Washer	6490-054	3328-160
87A	Nut, hex		3319-008
88	Washer, lock	3327-212	
89	Screw	3303-365	3303-168
90	Screw	3303-735	3305-197
91	Screw	3303-365	3303-168
92	Washer	6490-054	3328-160





BLADE GAP ADJUSTMENT

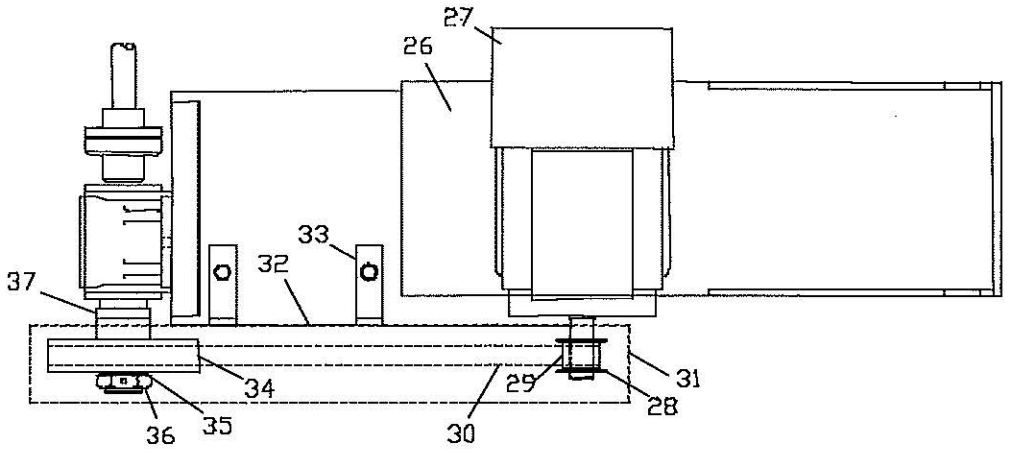
ITEM	DESCRIPTION	H-25 SERIES	H-50 SERIES
49	Handle, tapered plastic	2203-039	2203-039
50	Arm, blade gap adjustment	6490-081	6490-081
51	Handle, locking	2203-047	2203-047
52	Spacer, blade-adjustment shaft	516.04.10.000.00	516.04.10.000.00
53	Gear, pinion	6490-051	6490-223
54	Shaft, blade adjustment	6490-061 (10 ft) 6490-079 (12 ft)	6490-297 (10 ft) 6490-345 (12 ft)
55	Segment, gap adjustment gear	6490-086	6490-112
56	Bearing	3166-170	3166-175
57	Pivot, blade gap eccentric	6490-062	6490-217
58	Bushing, blade gap eccentric	6490-085	6490-216
59	Ring, seal	6490-084	6490-222
60	Felt	3211-365	3211-365
61	Bearing, 2-bolt flange	3146-420	3146-420
	Support, center bearing	6490-386	6490-080
	Cover, left side blade gap gear		6490-219
	Standoff, blade gap cover		6490-234
	Shield, sprocket cover opening		6490-267



BACK GAUGE

ITEM	DESCRIPTION	H-25 SERIES	H-50 SERIES
1	Channel, L.H. back gauge rail (36")	7220-005	6290-153
	Channel, R.H. back gauge rail (36")	7220-005	6290-154
	Channel, L.H. back gauge rail (48")	7220-007	6290-143
	Channel, R.H. back gauge rail (48")	7220-007	6290-144
2	Slide, L.H.	7420-012	6490-309
3	Nut, driving	7016-139	7016-139
4	Nut, stationary driving	7020-002	7020-002
5	Bracket, back stop mtg.	7220-001	6290-140
6	Pin, S.U. bracket pivot	7420-009	7420-009
7	Washer	3356-402	6490-322
8	Screw	3303-169	3303-169
9	Ring, retaining	3351-029	3351-029
10	Bearing	3178-696	3178-696
11	Block, front screw support	7420-030	6490-311
12	Rod or Rail, Support (36")	7420-014	3162-105
	Rod or Rail, Support (48")	7420-023	3162-110
13	Screw, ASM (36")	3358-088	3358-088
	Screw, ASM (48")	3358-089	3358-089
14	T-drive	7020-001	7020-001
15	Shoe, clutch	6498-003	6498-003
16	Ring, locking	7416-317	7416-317
17	Drum, clutch	6498-004	6498-004
18	Shaft, cross (10 ft)	7420-007	7420-007
	Shaft, cross (12 ft)	7420-028	7420-028
19	Pin, swing up roller	7420-011	7420-011
20	Bearing	3178-692	3178-692
21	Spacer, swing-up roller	7420-019	7420-019
22	Block, screw support - rear	7420-005	6490-312
23	Coupling, B.G. screw (R.A.G.B.)	7486-579	7486-579
24	Angle, back stop (10 ft)	7220-002	6290-142
	Angle, back stop (12 ft)	6290-067	6290-168
25	Cover, cross shaft (10 ft)	7420-037	7420-037
	Cover, cross shaft (12 ft)	7420-038	7420-038
26	Base, motor	7220-010	6490-406
27	Motor	4210-163	4210-163
28	Flange, pulley	3415-594	3515-594
29	Pulley, B.G. motor (12T)	7420-006	7420-006
30	Belt, timing (36 in.)	3413-048	3413-048
	Belt, timing (48 in.)	3413-061	3413-061
31	Cover, timing belt (36 in.)	7220-009	6290-141
	Cover, timing belt (48 in.)	7220-003	7220-003
32	Plate, belt cover rear (36 in.)	7420-033	6490-304
	Plate, belt cover rear (48 in.)	7420-018	7420-018
33	Bracket, belt cover	7420-020	7420-020
34	Pulley, driven (48T)	7420-002	7420-002
35	Washer, wave	3520-355	3520-355
36	Nut, timing pulley	7420-013	7420-013
37	Hub, timing pulley	7420-003	7420-003
38	Encoder	3900-026	3900-026
39	Coupling, encoder	6498-084	6498-084
40	Adapter, encoder	6498-085	6498-085

BACK GAUGE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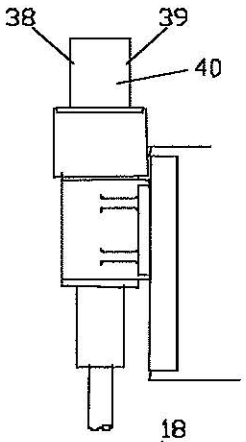
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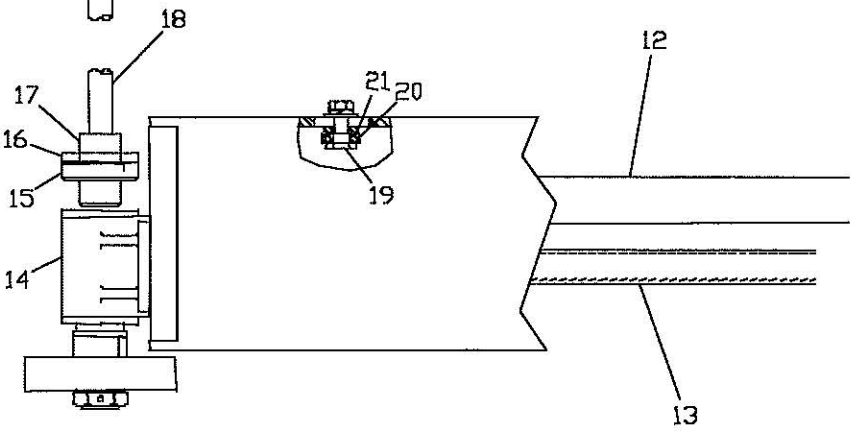
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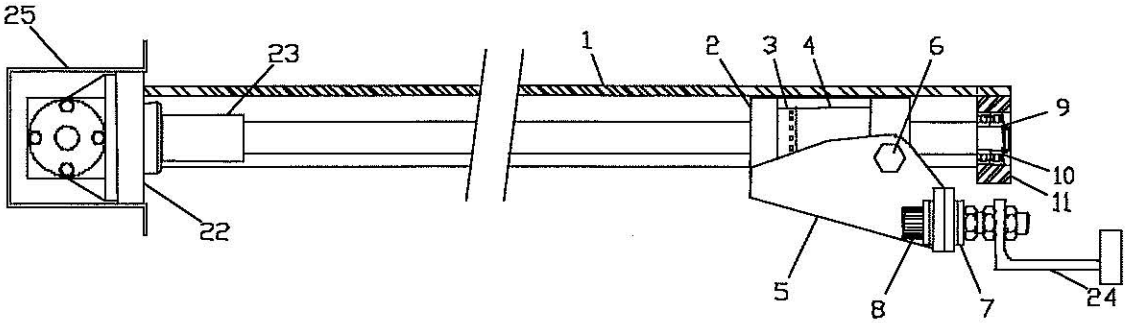
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PARTS LIST, H-25 & H-50

In writing or calling for replacement parts or operational information please refer to your shear by model and serial number. This information is located on the metal nameplate on the front of the machine. The serial number is also stamped on the top-right-front surface of the bed.

FOR CUSTOMER SERVICE, CALL TOLL-FREE 1-800-299-7664

TABLE OF CONTENTS

TROUBLE SHOOTING

Problem: **Sheet dimension is incorrect.**
Solution: Recalibrate PC100.

Problem: **The cut is not parallel.**
Solution: Adjust clutch unit on back gauge.
1. Loosen cap screw on the outside clutch shoe.
2. Turn the outside clutch shoe until the desired setting is reached.
3. The backstop pivots at the control end.
4. To check for parallelism, make a trial cut on full-length sheet stock and check strip.
5. After parallel adjustments have been made, it may be necessary to recalibrate the PC100 to insure correct gauge setting.

Problem: **The cut is not square to the reference face when working the squaring arm.**
Solution: 1. Check squaring arm and cut line with square.
2. Release mounting bolts to squaring arm. Retighten slightly. Cut a square (cut two sides, then flip and cut the other two sides) approximately the same length as the squaring arm, pressing the material tightly against the squaring arm for each cut. Measure the parallelism of the sides by comparing the length of the cross lines and correct by adjusting the adjusting screws located on the left side of the squaring arm. Repeat the operation until the squaring arm is exactly at a right angle. Lock the fixing screws, and tighten the jam nuts on the adjusting screws.

Problem: **The cut is not good.**
Solution: 1. Check the zero setting of the blade gap adjustment. Check that the blade gap adjustment is correct. Make a trial cut with a bigger gap to determine if the thickness and quality is suitable.
2. Check the blades for sharpness, and sharpen if necessary.
3. Check blade adjustment procedures.
4. Check nitrogen cylinder pressure.

Problem: **The shear will not cut the full length of the material.**
Solution: 1. Check the stroke length control. Check shut off valve on RH cylinder.
2. Material must be within rated capacity of M1020 steel.

Problem: **The knife bar does not descend and the holddowns do not clamp.**
Solution: Refill the return cylinders with nitrogen. Use supplied fill hose and pop-off valve.

Problem: **The knife bar returns slowly or not entirely.**
Solution: Refill the return cylinders with nitrogen.

Problem: **The machine responds slowly.**
Solution: Check solenoid valve (sticking spool)

Problem: **Low pressure.**
Solution: Reset main relief valve and clean or replace.

Problem: **The pump is noisy.**
Solution: 1. Check to see if there is sufficient oil in the tank.
2. Clean suction filter.

Problem: **The holddowns do not clamp and the knife bar does not move.**
Solution: 1. Check to see if pump rotation is correct.
2. Check to see if there is an electrical signal to the solenoid valve.
3. Check to see if cartridge valve spool is seating properly.
4. Check to see if the orifice in the cartridge spool is blocked.
5. Check the main relief valve setting.

Problem: **The main motor does not turn.**
Solution: Check the main fuses and Reset overloads.

Problem: **The back gauge motor does not work.**
Solution: Check fuse in the inverter. Reset overloads.

Problem: **The operating pedal does not function normally.**
Solution: Check the flexible connections and the contacts in the pedal.

Problem: **If the failure is presumed to be electrical.**
Solution: Check to see that all connection screws are tight.

Problem: **Knife bar does not travel to top dead point.**
Solution: Check top limit switch to see if it is operating properly.

Problem: **Holddown cylinder leaks.**
Solution: 1. Tighten holddown foot with spanner wrench.
2. Replace O-ring at top if leak is at top.
3. Replace inside seal if leak is at bottom.

BLADE REMOVAL WITH SPECIAL BLADE CARRIER BRACKETS

To install blade carrier brackets to each end of the back gauge stop, place the spacer plate over the 1 in. hole on the angle bar and bolt bracket to the angle bar.

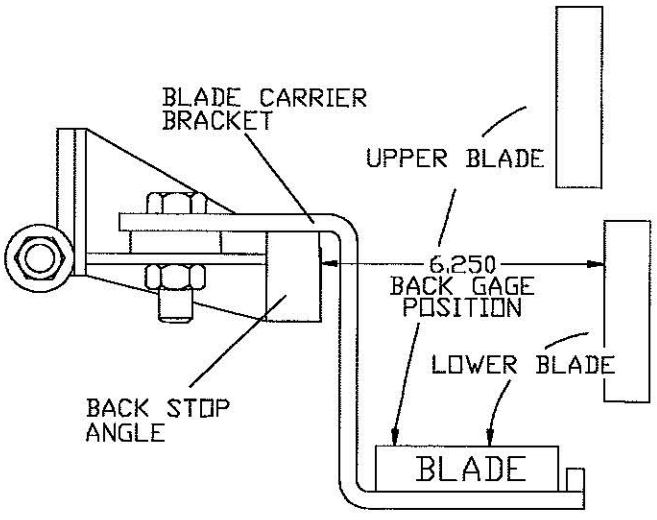
Move the back gauge to a position of 6.250 in., being careful not to run the brackets into the machine.

Both upper and lower blades can be removed with the aid of the blade carrier brackets. Each blade must be removed independently.

When removing both blades, remove the lower blade first.

1. When removing blades, leave the right and left end bolts in place and remove the remaining blade bolts.
2. With a helper steadying the blade, remove the two remaining end bolts.
3. Firmly grip blade to prevent dropping and damaging the blade. Carefully lower the blade onto the carrier brackets.
4. Run the back gauge back to the maximum rated gauging position (i.e. 48" for a 48" back gauge) and carefully lower the blade onto a pallet or cart. Do not run back gauge, with blade on carrier, beyond the rated maximum gauge position.

Do not attempt to place both upper and lower blades on the carrier brackets.



SERVICING AND LUBRICATION

TWICE WEEKLY, FOR EACH SHIFT
Lightly oil the back gauge. Grease all fittings, pivots, piston support cylinder, and return cylinders.

EVERY MONTH
Check oil level.

EVERY YEAR
Change hydraulic oil.

HYDRAULIC OIL TYPE
High-pressure hydraulic oil with a viscosity of 227 SUS at 100° F. (ex. Mobil DTE 25 or equivalent)

In cold areas, use oil that has a congealing point lower than the expected lowest temperature possible.

OIL CAPACITY
50 gallons.

HYDRAULIC OIL

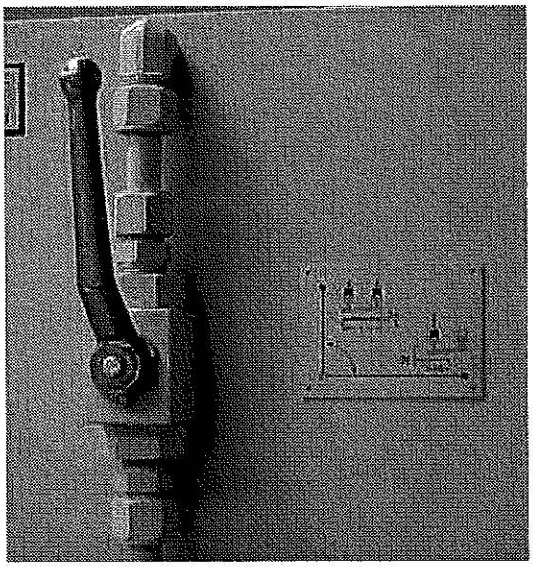
BP	EXXON	MOBIL	SHELL	SUNCO	TEXACO
Energol HLP 46	NUTO H 46	DTE 25	Tellus 46	Sunvis 821 WR	Rando B

GREASE

BP	EXXON	MOBIL	SHELL	SUNCO	TEXACO
Energrease LS2	RONEX MP	Mobilith AW-2	Alvantia 2	Sunaplex 992	Multifak 2

HIGH SPEED ADJUSTMENT (H 25 SERIES)

To increase the number of cuts per minute move the speed adjustment handle to the down position. This increases the speed by 50%, but will reduce the machine's rated capacity by 75% on full-length cuts. Machine capacity is reduced 50% for cuts of _ machine length or less.



MACHINE OPERATION

All functions required to setup and run a job are performed through the PC-100 Shear Gauge Control.

For control instructions, refer to the PC-100 Programming and Instruction Manual.

BLADE REMOVAL

(For Sharpening or Rotating)

NOTE: Blades are very sharp. Use caution and protective clothing when handling blades.

Blade removal requires two (2) personnel.

Before attempting to remove blades, be sure the ram is at the top of stroke. Place electrical disconnect in the "OFF" position.

Always remove the lower blade first.

LOWER BLADE

1. Remove bed plates from the shear table to expose bottom blade bolts.
2. Remove the C-frame guard from the end of the shear.
3. With the exception of each lower blade end bolt, remove remaining blade bolts.
4. With a helper steadying the lower blade, remove the two remaining end bolts.
5. Carefully slide the blade out through the end frame and onto a pallet or cart.

UPPER BLADE

1. With the exception of each upper blade end bolt, remove remaining blade bolts.
2. With a helper steadying the upper blade, remove the two remaining end bolts.
3. Firmly grip blade to prevent dropping and damaging the blade. Carefully lower the blade onto a pallet and move the pallet from under the shear.

After sharpening or rotating the blades, wash both blades and blade seats with solvent and coat with light oil.

Reinstall blades. **Always reinstall the upper blade first.**

Note: The upper blade is a 2 edged beveled blade and must be rotated 180°.

RESETTING BLADES

Tighten all blade bolts.

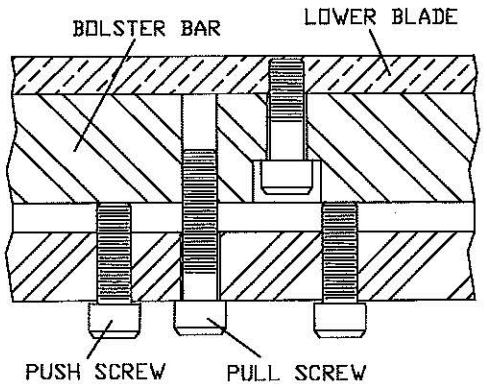
With the Blade Gap Adjustment moved to the maximum material gap setting, start cutting two sheets of tablet paper four or five places along the length of the blade. Gradually reduce the blade gap and continue shearing the paper until one sheet shears and the other sheet folds.

If you properly shear the paper before you reach the "0" or minimum setting, the lower blade must be pulled back. Loosen bolster screws and adjust the Push/Pull screws and continue making test cuts along the length of the bed. The gap is properly adjusted when you are able to shear one sheet of paper and fold the other when the gap adjustment is at "0" or minimum setting.

If you reach "0" or minimum setting on the adjustment without shearing one sheet and folding the other, further adjustment will be required by adjusting the Push/Pull screws on the table bolster.

Loosen bolster screws and adjust Push /Pull screws (to move lower blade forward) and continue shearing the paper until one piece cuts and the other piece folds. Blades will be adjusted to minimum setting.

Tighten table bolster screws.



CLEANING

All machined surfaces and gauge screws on Wysong shears are coated with a rust preventative for protection during shipping, which is easily removed with ordinary cleaning solvents. Clean all surfaces thoroughly, grease all fittings and oil back gauge with 30 wt. oil.

WIRING TO POWER

The shear is manufactured with all electrical connections suitable for three phase 230/460V 60Hz supply, except for special orders. The motors, overloads, fuses and trans-formers will be sized and wired for either 230 or 460 volt.

Connect supply to the terminals inside the electrical switch box located on the right hand end frame.

Check the main motor rotation. Be sure motor rotation is running in the direction of the arrow on the motor housing. Main motor rotation may be viewed through the fan housing on the end of the main motor. Should motor rotation be incorrect, reverse any two of the three incoming supply lines. Do not change motor leads as system damage may result.

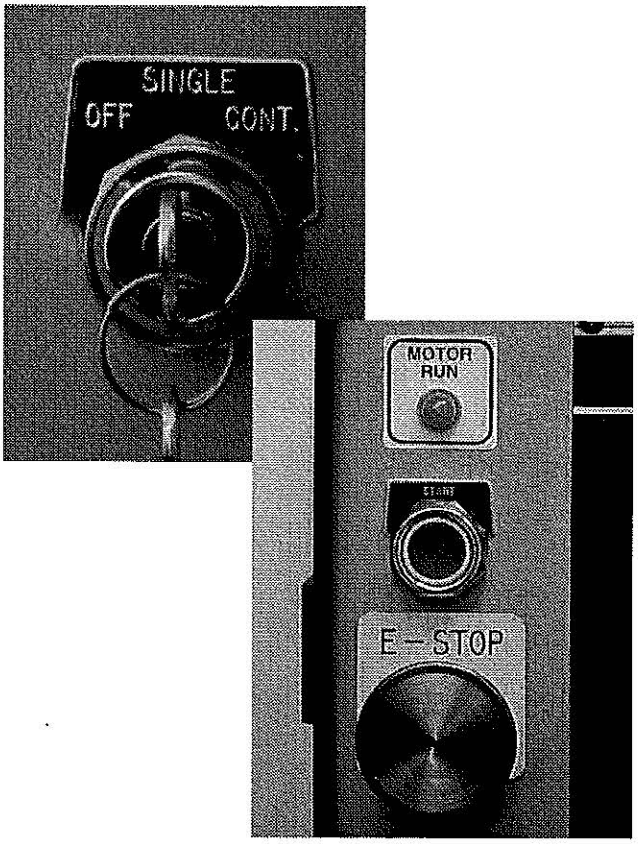
FILL OIL RESERVOIR

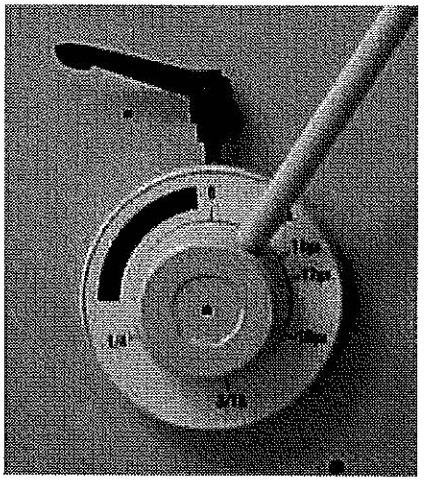
With knife bar at top of stroke, fill oil reservoir to _ mark on oil gauge with high pressure hydraulic oil with a minimum viscosity of 227 SUS at 100° F.

In cold climates, choose oil with a congealing point lower that the lowest expected temperature.

Normal equivalent hydraulic fluid:

Mobil DTE 25	Exxon NUTO H 46
BP Energol HLP 46	Shell Tellus 46





SETUP PROCEDURES

START UP

1. Turn the Motor Run switch to "ON", and press the "START" pushbutton on the control box.

2. Activate the Light Beam if you are to perform scribed line work.

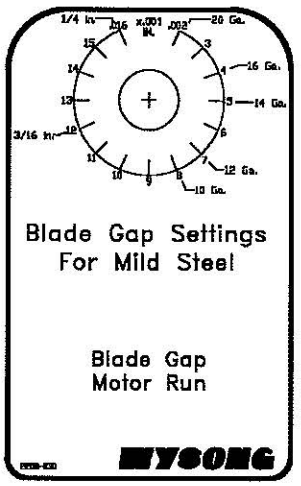
3. Press the "STOP" pushbutton to shut the machine down.

MANUAL BLADE GAP ADJUSTMENT

To adjust the gap between blades for material thickness, release the handle lock and reset the gap adjustment to the desired thickness, and lock handle.

POWER BLADE GAP ADJUSTMENT

To adjust the gap between blades for material thickness, turn dial to the required material thickness setting. Begin shearing when Motor Run Light turns "OFF".



INSTALLATION

SHIPMENT OF MACHINE

On shipment from factory, all associated stops and accessories are packed on the back of the machine.

UNLOADING AND HANDLING

Carefully examine your new Wysong Hydraulic Shear shipment as soon as it arrives. If you find damage, notify the carrier and file damage notices immediately.

The only recommended safe way to lift the machine is by the two lifting holes at each end of the machine. When moving or lifting the shear, it is recommended that the machine be handled with a crane or overhead hoist, using the lifting lugs at the top of the end frames.

NOTE: If a crane or hoist is not available, obtain the services of a qualified, professional rigger for proper handling of the shear.

BOLTING TO FOUNDATION

It is important that the machine be shimmed and anchored against pads to obtain proper blade clearance. Any induced twist to the machine frame may cause serious blade damage.

IMPORTANT: TO INSURE THAT YOUR SHEAR IS IN OPERATION AS SOON AS POSSIBLE, BE SURE THAT THE FOUNDATION HAS BEEN PREPARED AND THAT THE ANCHOR BOLTS ARE IN PLACE BEFORE A WYSONG SERVICE ENGINEER STARTS UP YOUR SHEAR.

RECOMMENDED FOUNDATION IS A GOOD QUALITY, REINFORCED CONCRETE FLOOR WITH A MINIMUM THICKNESS OF 6 INCHES.

INSTALLING ANCHOR BOLTS

The anchor bolt kit that was sent as part of the pre-installation package includes the following items:

- Four (4) anchor bolts with nuts and washers (Part number 1940-086)
- Four (4) capsules (Part number 1940-114)
- One (1) drive adapter (Part number 1940-124)
- One (1) concrete drill bit (Part number 1940-134)

The pre-installation kit also includes four (4) anchoring pads that are to be installed when anchoring shears.

INSTALLATION OF ANCHOR BOLTS

Step 1. On the prepared foundation, mark the general location of the four anchor bolts.

Step 2. Drill a 1" diameter clearance hole (with supplied concrete drill) for the right hand rear anchor bolt as shown in Figure 1. Clearance holes should be 5 _" deep (Figure 2).

Step 3. Drop one capsule into hole. Drive anchor bolt into the hole with a standard rotary hammer drill and supplied drive adapter. This action breaks the glass capsule and mixes the hardener. Drive bolt until resin is visible.

Allow approximately 30 minutes for the hardener to setup.

Step 4. Remove skids from shear and position right hand rear shear foot pad over anchor bolt. Place the four anchoring pads under bed/end frames and the foot pads (Figure 2). Carefully lower machine so that the hole in the right rear foot pad clears the anchor bolt.

Step 5. Drill and clean the three remaining holes through the footpad holes and repeat step 3.

Step 6. Place shim stock under the end frames where there is a noticeable clearance between the side frame and leveling pads.

Step 7. Tighten the anchor bolts against the foot pads. CAUTION: DO NOT TWIST FRAME.

TOP VIEW - HYDRAULIC SHEAR

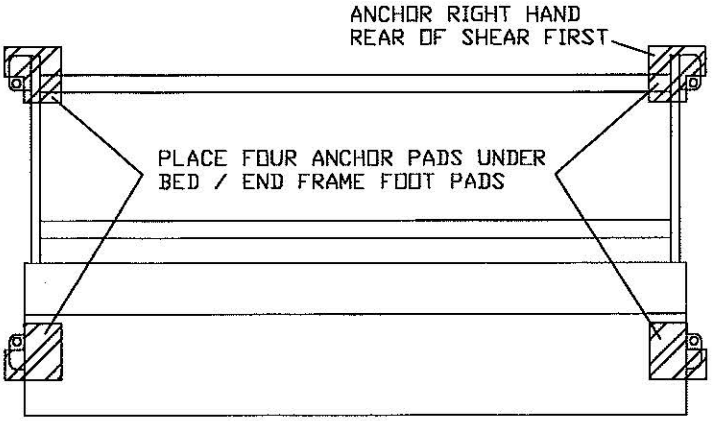


FIGURE 1

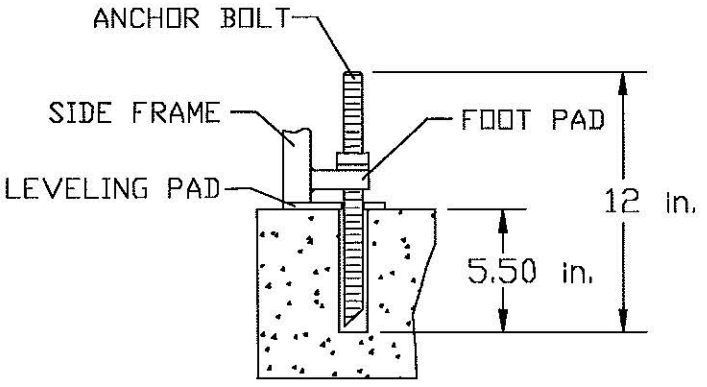


FIGURE 2

SAFETY IS EVERYBODY'S BUSINESS

"The employer shall be responsible for the proper installation and continued use of point-of-operation guards, devices, or awareness barriers to ensure operator safety" – ANSI B11.4

GENERAL SAFETY INFORMATION

Whether you are the owner, employer, operator or the maintenance man, shear safety is your business. You are responsible for operating and maintaining your equipment in compliance with these instructions and with the use of just plain common sense.

WYSONG shears are designed and constructed to give you many years of service for a variety of applications. Knowing the piece part to be sheared, the operator's supervisor can then determine the appropriate method for feeding and removing the work and the type of point of operation safeguarding that will be required. With all these facts, the supervisor can determine operator procedures that ensure safe, productive operation.

SAFE WORK PRACTICES – EMPLOYER'S RESPONSIBILITY

An organized safety program is a must to insure an efficient and productive shop. A committee can review your plant's safety procedures and make recommendations to eliminate unsafe working habits. Proper operating and safety instructions need to be provided to not only new employees, but also, those old timers that need a refresher as to proper work methods. Contact your worker's compensation insurance carrier for information on organizing your safety program.

Remember, OSHA (Occupational Safety & Health Act of 1970, as amended) requires that each employer furnish his workers with a shop that is free from recognized hazards that could cause death or serious injury. A safe work place and good work habits are good investments. Safe shear operation conditions depend on detection of existing and potential hazards and on taking immediate action to remedy them.

ANSI B11.4 Standard (Safety Requirements for the Construction, Care, and use of Shears) states that the employer shall train and instruct the operator in the safe methods of performing any operation before starting work on any operation. The employer shall provide adequate supervision, and insure that correct operation procedures are being followed.

SELECTING THE RIGHT COMPONENTS FOR YOUR PRODUCTION SYSTEM

A power shear is but one part of your production system. It is the power component, or the muscle component of the system. Different types of shears (hydraulic, mechanical, hydra-mechanical) with different types of controls are suited for a variety of applications. Proper point of operation safeguarding is a must with each type of shear.

The user should perform a thorough analysis of the hazards associated with the operation. Consideration of all these components – piece part to be sheared, type of shears, method of feeding and extraction – must be considered in order to select suitable point of operation safeguarding.

Remember that a safe combination of components for one production system may not be a safe combination for another piece part production system. Careful analysis must be made of the components of the production system to insure the most efficient and safest method for performing a piece part shearing operation.

WYSONG CNC
HYDRAULIC SHEARS
H-25 & H-50 SERIES

Manual Number 4911-106

MODEL NUMBER _____

SERIAL NUMBER _____

Before operating your Shear, it is recommended that the operator and production personnel become familiar with all safety guidelines, operating details and construction of the Shear.

This manual outlines installation, care and maintenance of your Shear. For more detailed information, refer to Wysong's Shear Safety and the PC-100 Programming Manuals. A parts list is included and should be referred to when ordering parts.

In writing or calling for information about your machine, please refer to your Shear by model and serial number. These can be found on the metal nameplate on the front of the Shear. The serial number is also stamped on the top-right-front surface of the bed.

If a problem arises that is not covered in the manual, contact our Service Department.

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