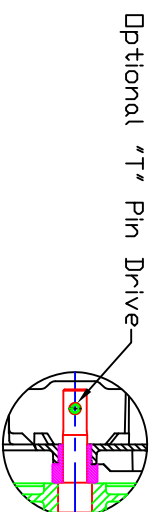


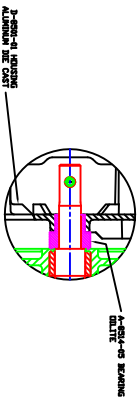
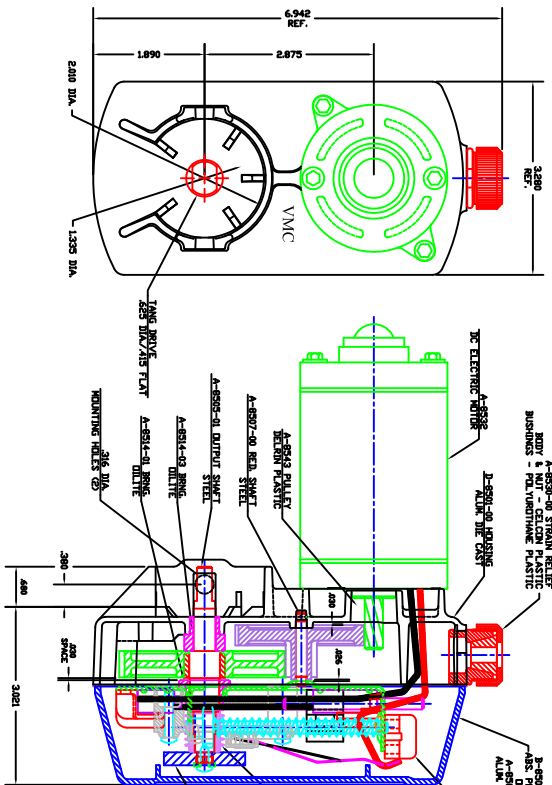
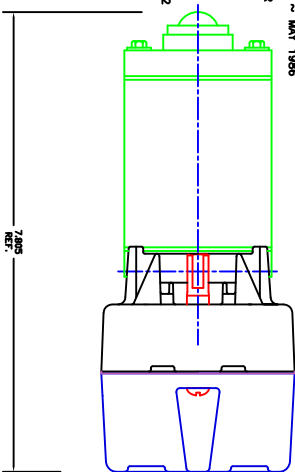
DEC. TOL. U.O.S.
 .00 = ±.01
 .000 = ±.005



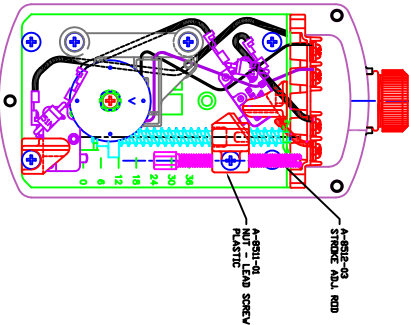
8500 SERIES GEARBOX BASIC DIMENSIONS

DATE	MAR 25 1998	VENTURE MFG. CO.		
SCALE	FULL			

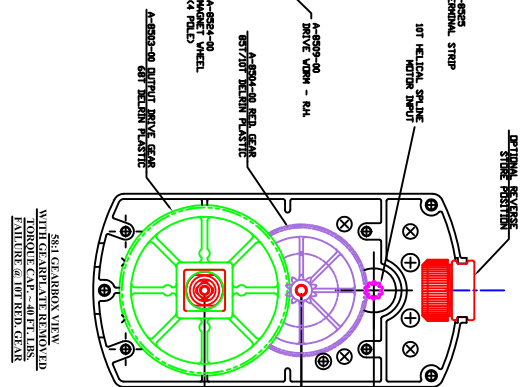
- ORIG. DESIGN ~ MAY 1987
TRANSFERRED TO CAD (SHEET #1) ~ MAY 2000
VARIOUS APPROVED DESIGN CHANGES FOR LIMIT SWITCH,
LEAD SCREW, HOUSING, PLASTIC LID, SENSOR OPTIONS,
UNIT MOTOR, AND TANG DRIVE (SHEET #3) ~ FROM 1987 THRU 1999
C ADDED 26:1 & 19:1 BELT DRIVES & DETAILS (SHEET #2) ~ MAY 1998
D ADDED CLUTCH & OUTPUT SHAFT DESIGNS & DETAILS FOR
ADAPTION TO SAT. & COMM. BALL SCREW DRIVES
(SHEET #4) ~ OCT. 1999
E ADDED 18:1 GEAR DRIVE BOX & DETAILS
(SHEET #2) ~ AUG. 2000
F ADDED REDESIGNED HOUSING AND BEARING
FOR M-8700 26:1 BELT DRIVE (SHEET #2) ~ SEPT. 2002
G UPDATED VIEWS PER MSC. E.C.'S
(SHEETS 1 THRU 4) ~ MAR. 2006



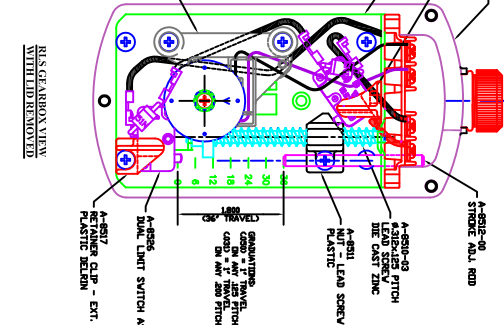
18:1/26:1 BELT DRIVE GRY
WITH REDESIGNED GEARBOX AND BEARING



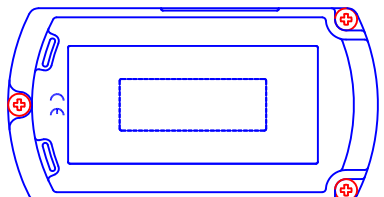
INTERNAL VIEW FROM BELOW
SHOWN WITH REDESIGNED GEARBOX AND BEARING



ORIGINAL THE PIN DRIVE
ALL GEAR OR BELT DRIVES
(OPTIONAL)

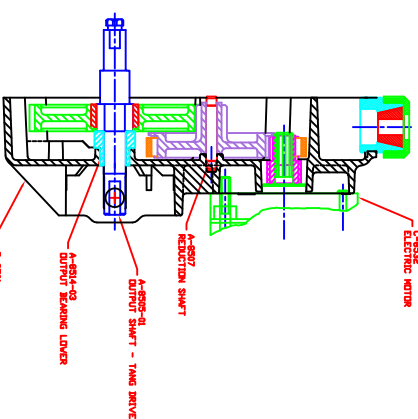
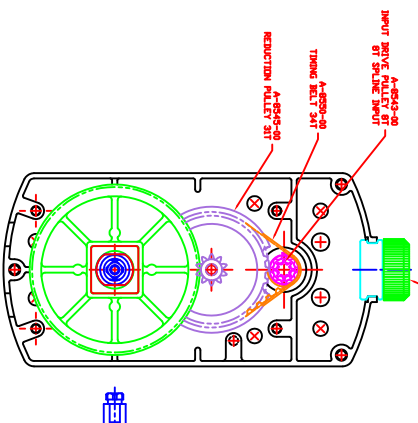
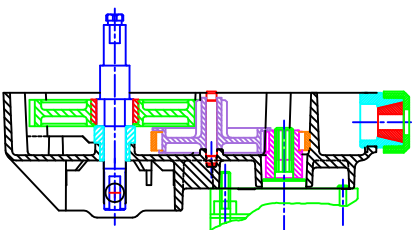
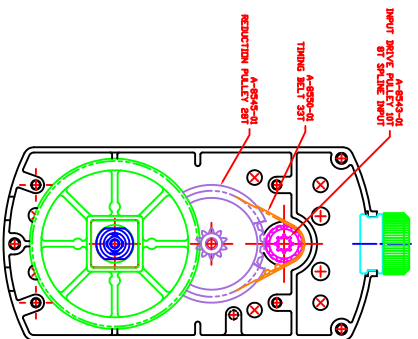
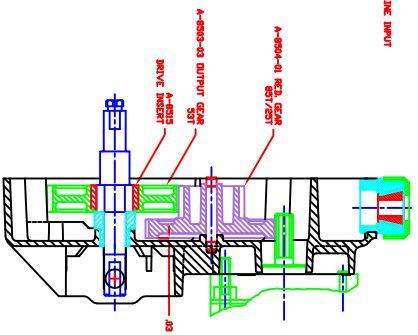
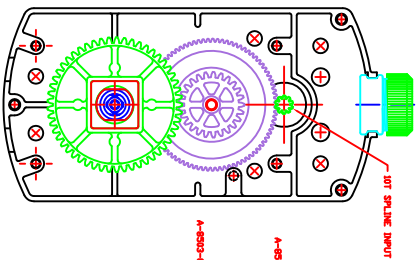


INTERNAL VIEW
WITH LID REMOVED



TOP VIEW
OF GEARBOX LID

- B800 SERIES ~ SPECIAL PRODUCTS
B800 SERIES GEARBOX
DESIGN CHANGES SHOWN ABOVE
ORIGINALLY DESIGNED BY
SEMI-CONDUCTOR DESIGN GROUPS
D-8854 HILL-FROM HEAD GEARBOX M-8854
D-8855 HILL-FROM H.O. GEARBOX M-8855
C-8856 HILL-FROM KNEE GEARBOX M-8856
(2) SENSOR OPTIONS & DETAILS ON SHEET NO. 3
VARIOUS CLUTCH DESIGN CAPACITIES & DETAILS ~
FLAT GEAR PLATE DESIGNS W/O SENSORS & LIMITS
DETAILS ON SHEET NO. 4



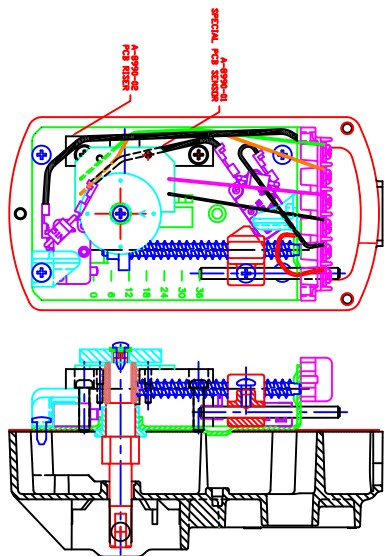
GEAR DRIVE BOX
18.0 TO 1.0 RATIO
HD SQ OUTPUT DRIVE DESIGN

BELT DRIVE GEARBOX
19.1 TO 1.0 RATIO

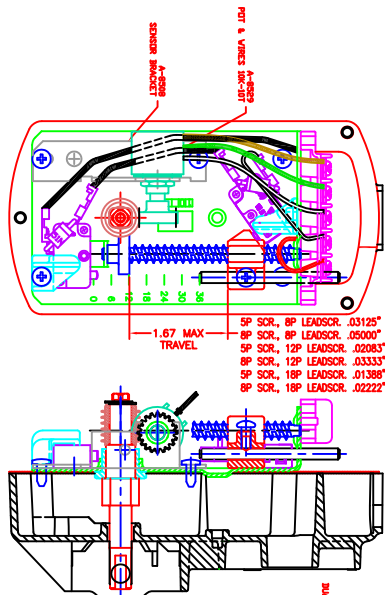
BELT DRIVE GEARBOX
26.35 TO 1.0 RATIO

NOTE: A-8504-01 OUTPUT GEAR SHOWN ABOVE
NOT TOOLED AS OF JANUARY 2001

8500 SERIES GEARBOXES WITH
(2) BELT DRIVE DESIGNS &
(1) 18:1 RATIO GEAR DRIVE DESIGN
(SHOWN WITH TOP ASSEMBLIES REMOVED)



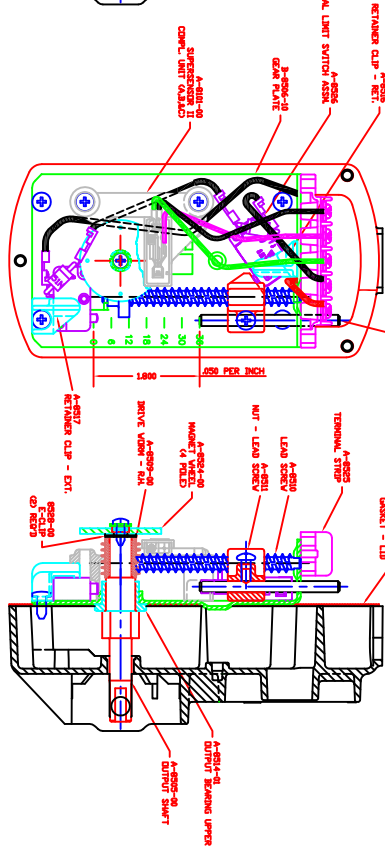
STD. GEARBOX WITH
"QUADRATURE" SENSOR
WITH LIMIT SWITCHES
C-1998



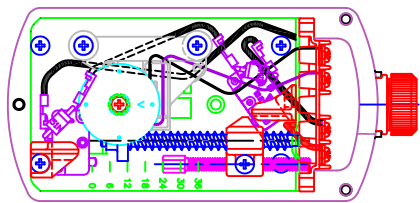
STD. GEARBOX
WITH POTENTIOMETER SENSOR
10K - 10 TURN OR 1K - 10 TURN
WITH LIMIT SWITCHES
C-1988

MAXIMUM TRAVEL WITH LIMITS:
5P SCREW AND 8P LEADSCREW = 53"
8P SCREW AND 8P LEADSCREW = 33"
5P SCREW AND 12P LEADSCREW = 80"
8P SCREW AND 12P LEADSCREW = 90"
5P SCREW AND 18P LEADSCREW = 120"
8P SCREW AND 18P LEADSCREW = 75"
MAX STROKE: 100" POT

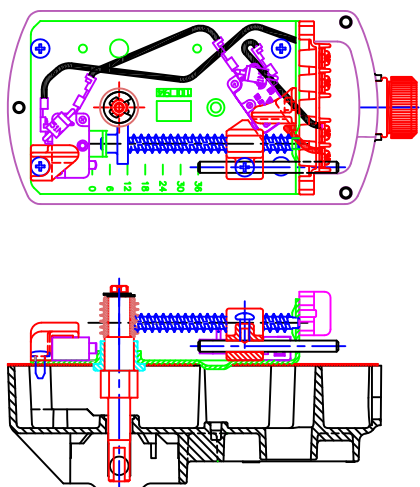
W/ 20T GEAR: 40" ON 5P SCREW AND 25" ON 8P SCREW
W/ 25T GEAR: 50" ON 5P SCREW AND 35" ON 8P SCREW
W/ 32T GEAR: 64" ON 5P SCREW AND 40" ON 8P SCREW



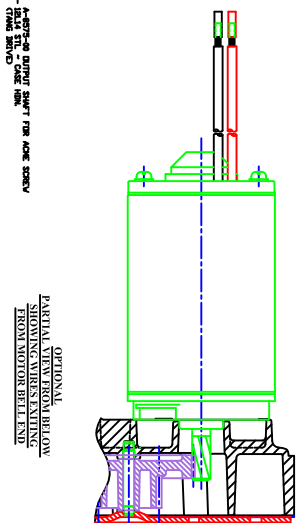
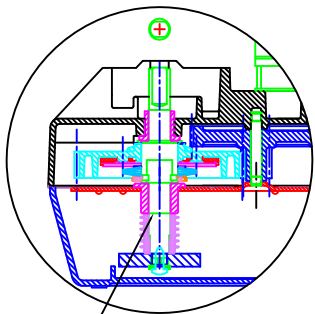
STD. GEARBOX WITH
LIMIT SWITCHES ONLY
WITH LIMIT SWITCHES
C-1999



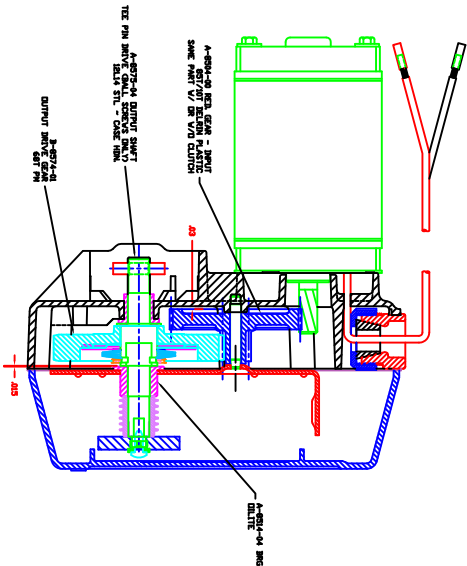
STD. GEARBOX WITH
SSR REED SWITCH SENSOR
WITH LIMIT SWITCHES
OPTIONAL THREADED ADJUSTMENT ROD
C-1988



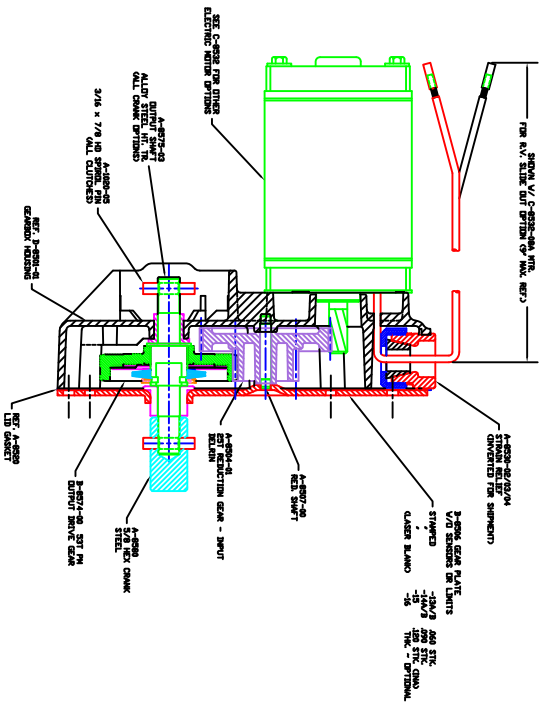
STD. GEARBOX WITH
LIMIT SWITCHES ONLY OPTION
C-1988



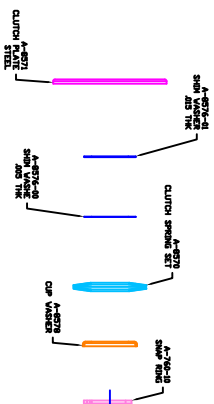
581 GEARBOX WITH
CLUTCH OPTION
FOR AC/DC DRIVE
(INACTIVE PLAN 200)



581 GEARBOX WITH
CLUTCH OPTION
FOR AC/DC DRIVE
LIMITS FOR ANY SENSOR
SHOWN ON SHEET NO. 3

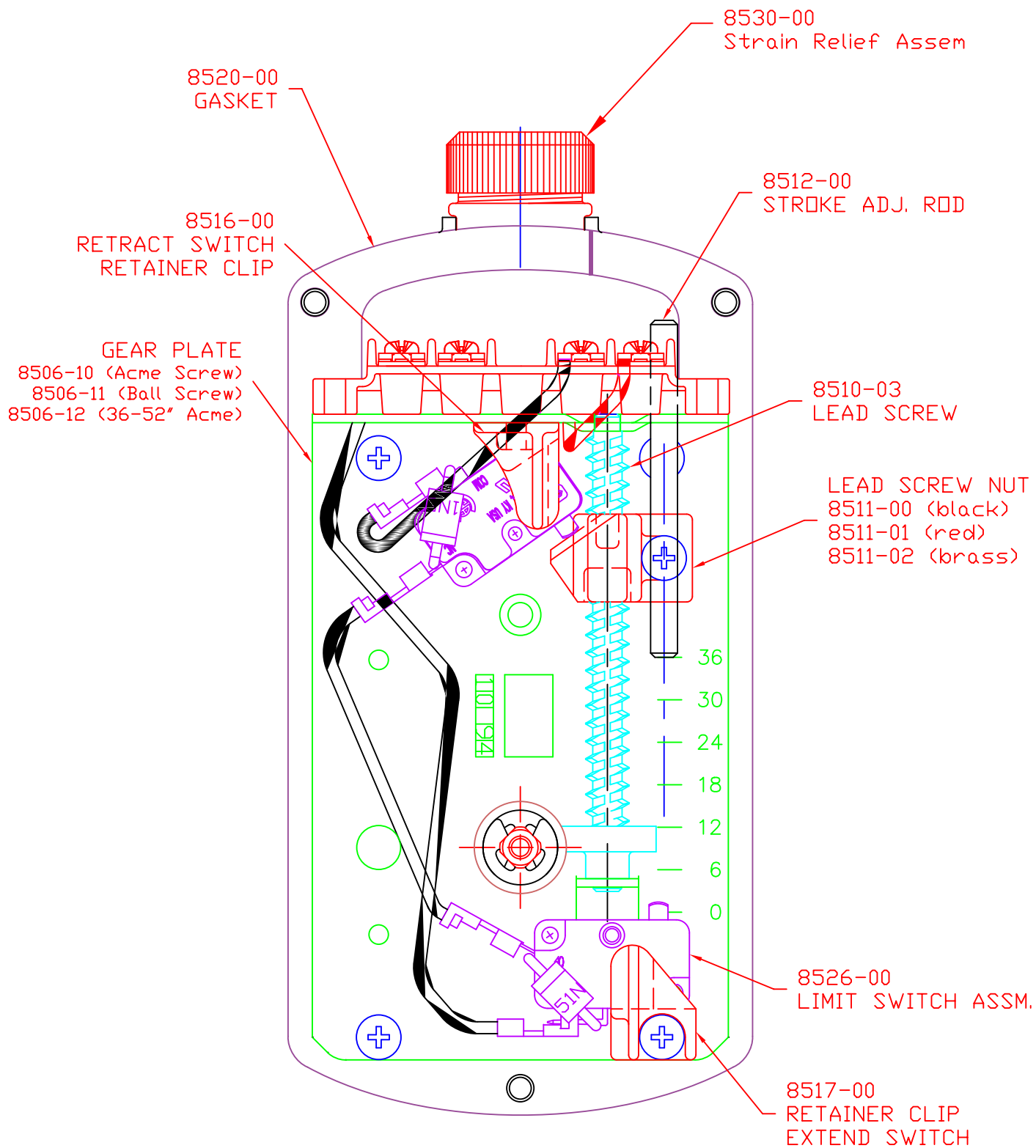


581 GEARBOX WITH
CLUTCH OPTION
FOR AC/DC DRIVE
LIMITS FOR ANY SENSOR
SHOWN ON SHEET NO. 3
(PART NO. 438701-1)

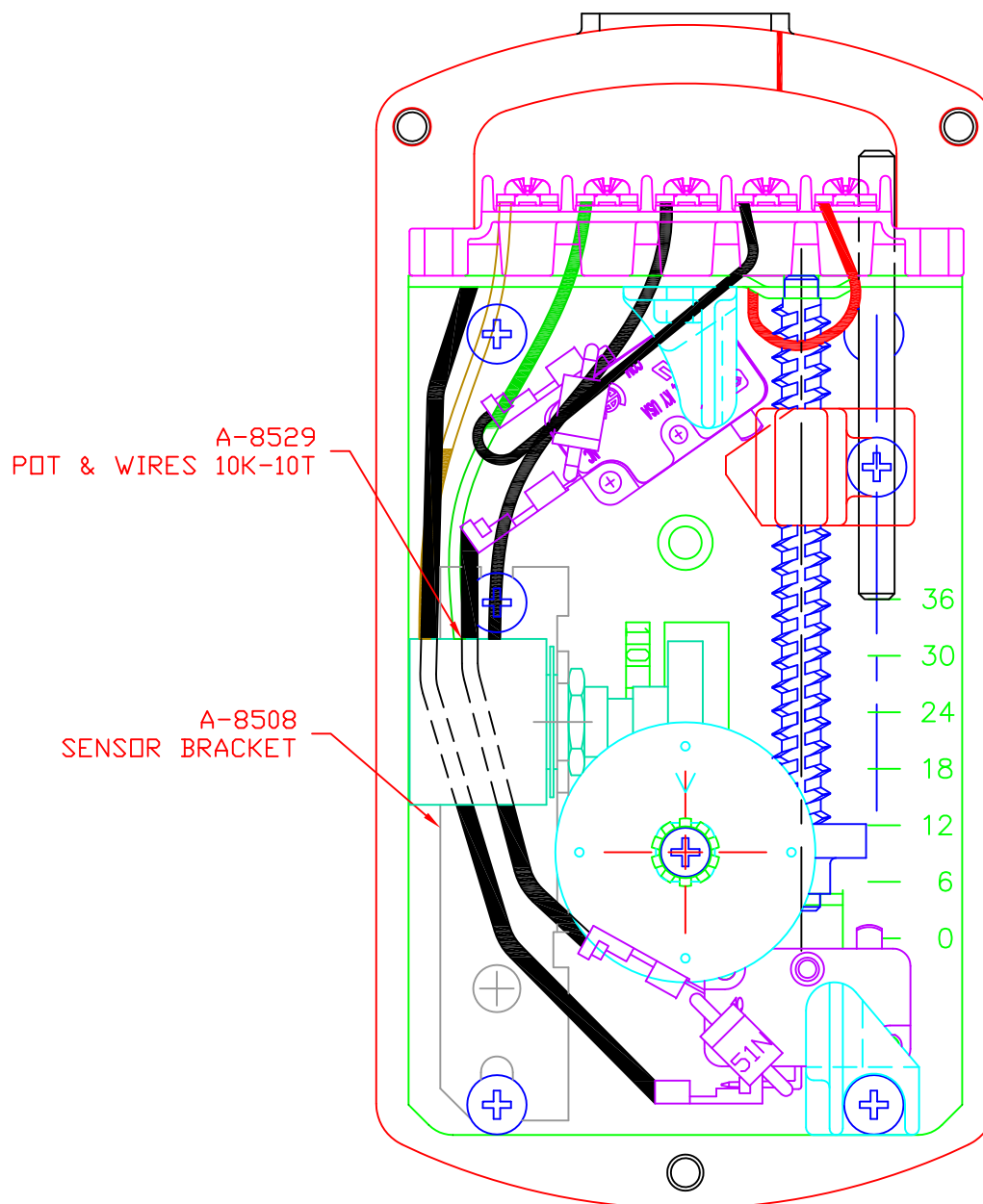


COMMON CLUTCH DETAILS
APPLICABLE TO ANY GEARBOX (NOT AVAILABLE ON BELT DRIVE GEAR MOTORS)
CAPACITY SETTING RANGE 750-2500 LBS.
ADJUST LOAD USING .005-.015 SHIM WASHERS (3)
(SHOWN ABOVE) TO SUIT

8800 SERIES GEARBOX
SPECIAL CONFIGURATIONS
581 GEARBOX WITH CLUTCH FOR EITHER BALL OR AC/DC DRIVES
581 GEARBOX WITH PLAN GEARBOX
CLUTCH PARTS - SETTINGS & APPLICATION DETAILS



LIMIT SWITCH LAYOUT

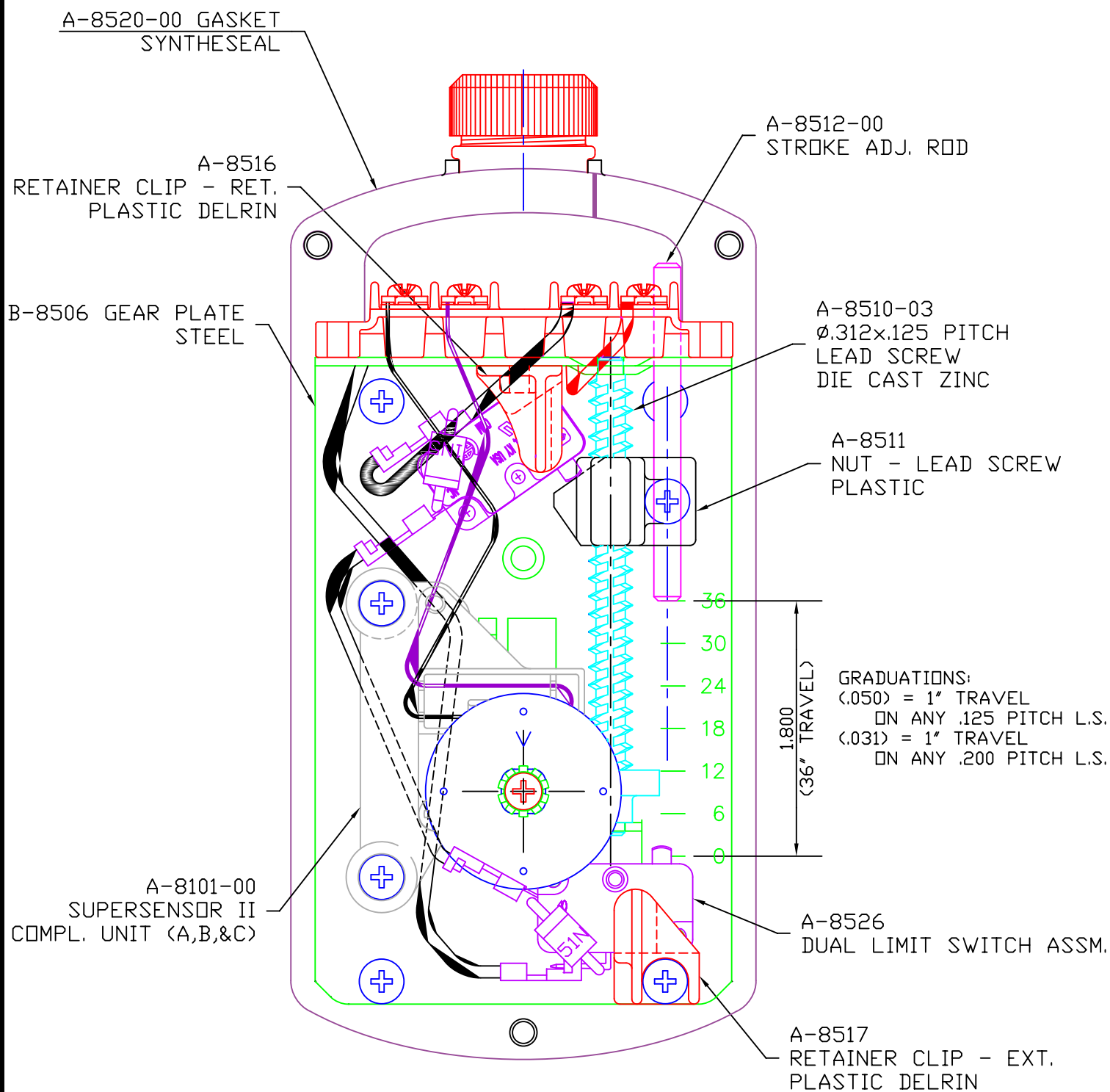


PLS GEARBOX VIEW
WITH LID REMOVED

DATE
NOV. 2001

VENTURE MFG. CO.

SCALE
FULL



**RLS GEARBOX VIEW
WITH LID REMOVED**

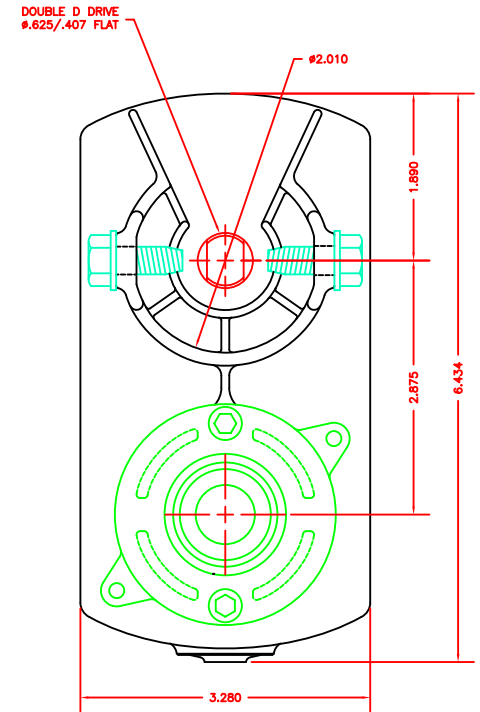
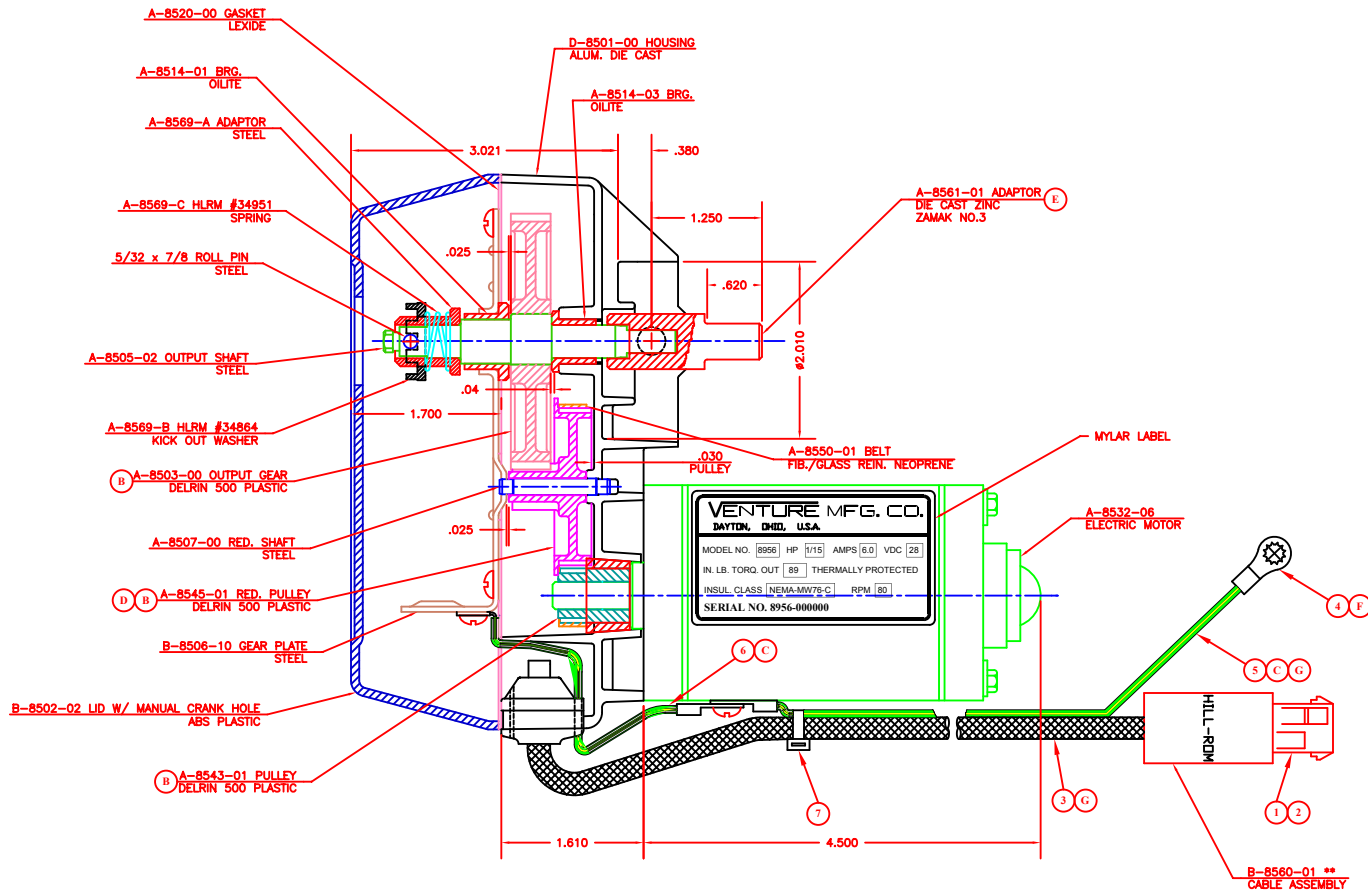
DATE
NOV. 2001

VENTURE MFG. CO.

SCALE
FULL

- (A) .560 FLAT WAS .530 ~ FEB. 10, 1999 ~ REF ECN NO. HLRM 13811
(B) MATERIAL CHANGED ~ JULY 18, 1999 ~ REF. ECN NO. HLRM 14210
(C) GRN/YEL GROUND WIRE WAS BRAIDED GROUND STRAP ~ MAR. 9, 2000 ~ REF. ECN NO. HLRM 15015
(D) UPDATED 8545-01 RED. PULLEY TO REV. D ~ APR. 10, 2000
(E) MATERIAL CHANGED ~ NOV. 3, 2000 ~ REF. ECN NO. HLRM MYS4A
DELETED A-1020-05 ROLL PIN

- (F) REMOVED TERMINAL STRIP AND AMP 61795-1 WAS 61436-1 ~ MARCH 12, 2001 ~ REF ECN NO. HLRM UUNWQ
(G) SHORTENED PIGTAIL 4", GND WIRE 2", AND REMOVED 1 TIE ~ MAY 18, 2001 ~ REF ECN NO. HLRM WZRC1



MOTOR MFG. TYPE AND RPM	ARKANSAS GENERAL INDUSTRIES PERMANENT MAGNET, 2000 @ 30 OZ. IN.
VOLTAGE	28 VOLTS DC
WINDING INSULATION CLASS	NEMA - MW76-C
DVV	.70 MA MAX. @ 1500 VRMS FOR 1 SEC. OR .58 MA MAX. @ 1240 FOR 60 SEC. FROM LEADS TO CASE OPENING TEMPERATURE WITHIN THE OVER LOAD PROTECTOR RANGE.
MOTOR CURRENT NO LOAD @ RATED VOLTAGE	.5 AMPS
MOTOR CURRENT FULL RATED LOAD @ RATED VOLTAGE	6 AMPS
MOTOR CURRENT LOCKED ROTOR @ RATED VOLTAGE	11 AMPS
AVERAGE TIME FOR LOCKED ROTOR TO TRIP INTERNAL PROTECTION OF MOTOR @ RATED VOLTAGE	10 SEC.
TYPE OF INTERNAL MOTOR PROTECTION	THERMAL
MFG. MFG PART NUMBER, AGENCY APPROVALS AND NUMBER OF INTERNAL MOTOR PROTECTOR	RAYCHEM, RXE 300, UL#E74889, CSA# CA7816SC, (1) 80-85°C, (1)-3.0, (1)-6.0, 40 AMPS MAX.
HORSE POWER @ RATED VOLTAGE	1/15 HP.
MAXIMUM RATED TORQUE OF MOTOR @ RATED VOLTAGE	75 OZ. IN.
STALL TORQUE OF MOTOR @ RATED VOLTAGE	190 OZ. IN.
GEARBOX NOISE LEVEL (IN BED)	40-50 dBA

CABLE ASSEMBLY, B-8560-01, BILL OF MATERIAL			
ITEM	QUANTITY	SUPPLIER NO.	DESCRIPTION
1	1	AMP 350778-1	2 PDS MATE-N-LOK
2	2	AMP 350218-1	PIN TERMINAL
3	1	BELDEN 369558	9' 2 CONDUCTOR 18 GAGE CABLE
4	4	AMP 61795-1	TERMINALS
5	1	ASTRO 3658-0000	14' 18 GA. 16/28 STRANDED COPPER WIRE UL 1007
6	1	ASTRO 3658-0000	5' 18 GA. 16/28 STRANDED COPPER WIRE UL 1007
7	1	TYTON T-1BR	TIE WRAPS

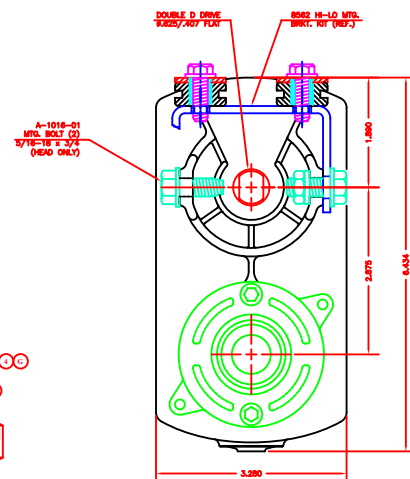
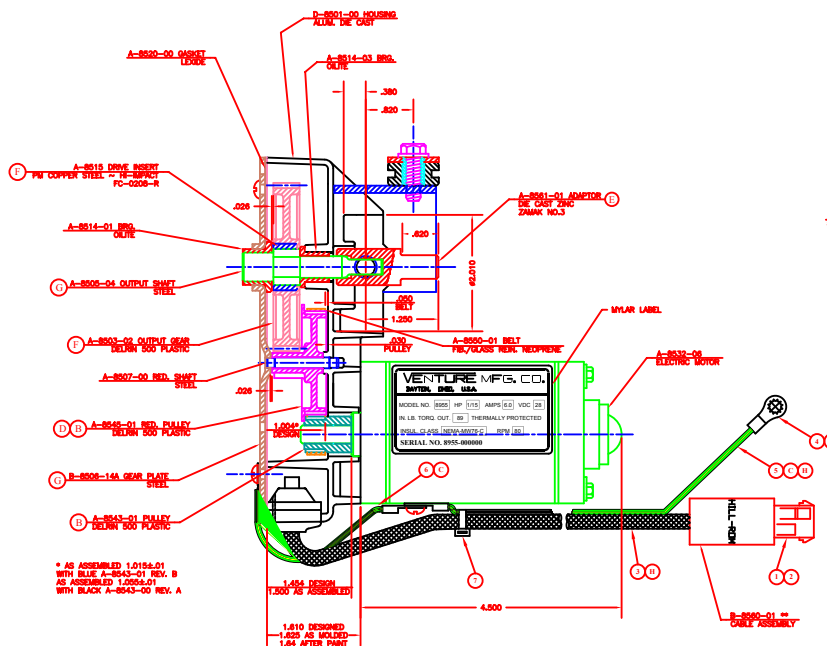
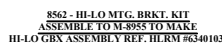
***NOTE: OUTPUT SHAFT OF GEARBOX ROTATES "CW" (AS VIEWED THRU LID) WHEN POSITIVE VDC IS APPLIED TO PIN #1 OF CABLE ASSEMBLY CONNECTOR

M-8956 (REF. HLRM # 6340102)
GEARBOX ASSEMBLY W/ MANUAL CRANK
HILL-ROM 28VDC
KNEE ACTUATOR
19 TO 1 RATIO BELT DRIVE (90 RPM)
WT. ~ 4.18 LBS.

REL. NOV. 9 1998

DATE AUG 24 1998	VENTURE MFG. CO.	
SCALE FULL	C-8956 ASSY	G

-



CABLE ASSEMBLY, R-8560-01, BILL OF MATERIAL			
ITEM	QUANTITY	SUPPLIER NO.	DESCRIPTION
1	1	AMP 309778-1	2 PDR WATE-IR-LEK
2	2	AMP 309819-1	PDR TERMINAL
3	1	HELEN 309708	9" 4 CONDUCTOR CABLE, SHIELD
4	4	AMP 61770-1	TERMINALS
5	1	ASTRO 3450-0000	14" 56 GAL STEEL STRAPPED CABLE LOCK LATCH
6	1	ASTRO 3450-0000	5" 56 GAL STEEL STRAPPED CABLE LOCK LATCH, 56T
7	1	TYTAN T-10R	T-10R-2

NOTE: OUTPUT SHAFT OF GEARBOX ROTATES "CW" (AS VIEWED THRU LTD) WHEN POSITIVE VDC IS APPLIED TO PIN #1 OF CABLE ASSEMBLY CONNECTOR

M-8955 (REF. HLRM #6340103)
GEARBOX ASSEMBLY - HI-LO
SAME AS HEAD GBX EXCEPT FOR
ASSEMBLY OF 8562 HI-LO MTG.
BRKT KIT AS SHOWN ABOVE
WT. ~ 4.57 LBS.

M-8954 (REF. HLRM #6340101)
GEARBOX ASSEMBLY - HEAD
HILL-ROM 28VDC
19 TO 1 RATIO BELT DRIVE (80 RPM)
WT. ~ 4.14 LBS.

REL NOV 9 1998