

M E M O R A N D U M

1973 SEASON

SERVICE BULLETIN # 1

TO: ALL SCORPION MINNESOTA DEALERS

FROM: SCORPION MINNESOTA CUSTOMER SERVICE DEPT.

DATE: JUNE 19, 1972

SUBJECT: HEAVY DUTY SPRING KITS- PARARAIL

THIS KIT IS DESIGNED TO BE INSTALLED ON '73 PARARAIL MACHINES WHERE LOADS IN EXCESS OF 300 LBS. ARE BEING CARRIED (DRIVER, PASSENGER, ETC.) THIS KIT MAY ALSO BE USED ON '72 MACHINES. THE FOLLOWING INSTRUCTIONS ARE FOR BOTH MODELS:

1. ELEVATE REAR OF MACHINE.
2. DISCONNECT SHOCK ABSORBER AT LOWER END.
3. REMOVE THE TOP SUSPENSION SHAFT HOLDING BOLTS (ONE (1) EACH BY "GRAB" HANDLES.) CAUTION SHOULD BE USED SO AS NOT TO ALLOW THE SUSPENSION TO BIND WHILE THESE BOLTS ARE BEING REMOVED (SUPPORT THE TRACK AT THE REAR.)
4. LOOSEN AND REMOVE THE SPRING TENSION BOLTS FROM THE BRACKETS AND SPRING ENDS AND DISCARD.
5. DISASSEMBLE THE REAR SUSPENSION AS FOLLOWS:
 - A. '72 MODELS---- REMOVE THE ROLL PINS (3) AND REMOVE THE SHAFT. REMOVE THE SPRING ANCHOR TUBE ASSEMBLIES AND SPRINGS. DISCARD THESE.
 - B. '73 MODELS---- REMOVE THE ROLL PINS (2) FROM THE SUSPENSION PLATES AND REMOVE THE AXEL SHAFT BOLTS THAT SECURE THE SUSPENSION PLATE TO THE SHAFT. REMOVE THE PLATES AND SPRINGS.
6. INSTALL HEAVY DUTY SPRINGS USING THE RETAINERS, BOLTS, NUTS, MAKING SURE THAT THE SPRING RETAINER IS FITTED PROPERLY INTO THE SPRING EYELET AND THAT THE FLANGED END HOLDS THE SPRING TO THE SUSPENSION PLATE.
7. ASSEMBLE REAR SUSPENSION.
 - A. '72 MODELS--- INSERT THE NEW SPACER TUBE SPACER INTO THE SPRINGS, POSITION THE TUBING WELDMENT AND SHOCK ABSORBER CLEVIS. INSTALL CROSS SHAFT IN POSITION, INSTALL ROLL PINS. (SHAFT TO BE LUBRICATED WITH GREASE- SCORPION PART NO. 906802).

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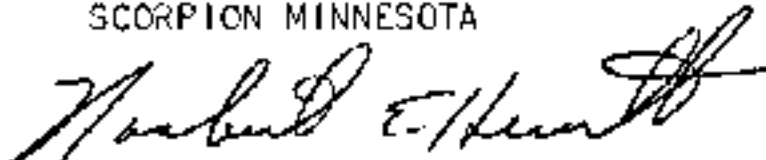
SERVICE BULLETIN # 1

- b. '73 MODELS--- INSTALL SUSPENSION PLATES ON REAR AXEL AND REAR SUSPENSION, BOLT SECURELY AND INSTALL ROLL PINS.
8. INSTALL NEW SPRING TENSION BOLTS ON SPRING HOOK AND INTO BRACKETS WITH NUTS IN PROPER POSITION (ONE (1) ON EACH SIDE OF BRACKET). NOTE: '72 MODELS--- USE THE BOLTS THAT HAVE THE OFFSET EYE. IT WILL BE NECESSARY THAT THE BOLT BE INSTALLED WITH THE OFFSET TOWARDS THE CENTER OF THE SUSPENSION SYSTEM.
9. RAISE THE ENTIRE TRACK AND SUSPENSION SYSTEM INTO PLACE IN THE TUNNEL AND INSTALL THE UPPER SHAFT MOUNTING BOLTS. CONNECT THE SHOCK ABSORBER.
10. TRACK ALIGNMENT AND ADJUSTMENT MUST NOW BE MADE. THE PROPER "LOAD" ADJUSTMENT CAN NOW BE MADE, ALSO, AS DESCRIBED IN THE OPERATOR'S MANUAL (1973 EDITION)

REMEMBER: THE SUSPENSION SYSTEM SHOULD NOT "BOTTOM OUT" ON EITHER MODEL. THE SYSTEM SHOULD ABSORB THE IMPACTS.

SINCERELY,

SCORPION MINNESOTA



NORBERT E. HEWITT
CUSTOMER SERVICE DEPT.

NEH:LE

M E M O R A N D U M

1973 SEASON

SERVICE BULLETIN # 2

TO: ALL SCORPION MINNESOTA DEALERS

FROM: SCORPION MINNESOTA CUSTOMER SERVICE DEPT.

DATE: JUNE 19, 1972

SUBJECT: I. RUSTING SKIS II. SPARK PLUGS

- I. IT HAS COME TO OUR ATTENTION THAT THE EARLY PRODUCTION MODELS OF THE 1973 SCORPION STINGERS HAVE GONE OUT WITH THE SKI WIRED TO THE CRATE IN THE UP POSITION. THIS HAS CAUSED WATER FROM RAINFALL TO LAY DOWN IN THE PORTION AROUND THE FRONT SKI HOLDING PIN AND SADDLE. THE UNDERSIDE OF THIS SADDLE IS NOT CHROME PLATED AND CONSEQUENTLY STARTS TO RUST VERY RAPIDLY. THE RUSTY CONDITION THAT YOU SEE ON THE SKI ITSELF IS BECAUSE THE WATER HAS ALLOWED OXIDATION FROM THE UNDERNEATH OF THE SADDLE TO FORM ON THE CHROMED PART OF THE SKI. A VERY SATISFACTORY WAY OF REMOVING THIS RUST IS WITH THE AID OF A SMALL BRUSH AND AJAX. THIS WILL REMOVE ALL OXIDATION AND RUST THAT APPEARS WITHOUT HARM TO THE PLATING THAT IS ON THE SKI OR THE SADDLE.

THIS CONDITION HAS BEEN ELIMINATED IN PRODUCTION, AT THE PRESENT TIME, BY ONE OF TWO METHODS.

1. WIRING THE SKI IN THE REVERSE POSITION, HANGING UPSIDE DOWN.
2. PLACEMENT OF THE SKI IN A CONTAINER (SLEEVE BOX) UNDERNEATH THE SHRINK PACK.

THE PROPER PROCEDURE FOR WARRANTY REIMBURSEMENT WILL BE TO SUBMIT ALL CLAIMS FOR THE RUSTING CONDITION ON THE STANDARD SCORPION WARRANTY CLAIM FORM AND SUBMIT THEM THROUGH PROPER CHANNELS PROPERLY FILLED OUT. A LABOR ALLOWANCE OF .2 -- \$1.25 PER MACHINE WILL BE ALLOWED FOR THE CLEANSING OPERATION.

- II. THE ORIGINAL SPARK PLUG SPECIFICATION THAT WAS PUBLISHED IN THE OWNER'S MANUAL FOR THE CCW 290 AND 340 ENGINES HAS BEEN CHANGED BY THE MANUFACTURER OF THESE ENGINES (CANADIAN CURTISS-WRIGHT, LIMITED). IT IS NOW RECOMMENDED THAT THE AC SPARK PLUG #S41-FR BE USED IN BOTH THESE ENGINES. THIS IS A HOTTER PLUG THAN WAS ORIGINALLY SPECIFIED FOR THE ENGINE.

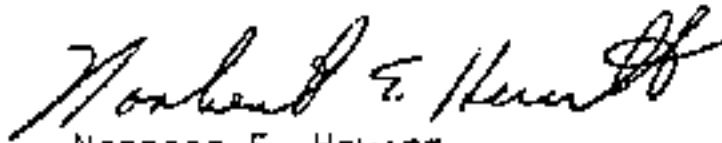
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SERVICE BULLETIN #2

BECAUSE OF THE POSSIBILITY OF THE ORIGINAL PLUG (#S40-FR) BEING TOO COLD FOR CERTAIN APPLICATIONS, THE MANUFACTURER HAS RECOMMENDED THE HOTTER PLUG. IT IS NOT NECESSARY TO GO BACK THROUGH THE ENGINES THAT YOU NOW HAVE IN STOCK FOR ANY MODIFICATION OR CHANGE OF THE SPARK PLUG. WE HAVE CORRECTED THIS IN PRODUCTION HERE AT THE SCORPION FACTORY. THE ONLY THING THAT YOU HAVE TO BE CONCERNED WITH IS THAT WHEN YOU SELL PLUGS ON A REPLACEMENT BASIS, THAT THE CUSTOMER RECEIVE THE RIGHT PLUG FOR THE CORRECT ENGINE. THE ENGINES WILL NOT BE DAMAGED BY THE USE OF THE COLD PLUG. EITHER PLUG MAY BE USED. HOWEVER, BETTER ENGINE PERFORMANCE IS HAD WITH THE USE OF THE HOT PLUG AS RECOMMENDED BY CANADIAN CURTISS-WRIGHT.

SINCERELY,

SCORPION MINNESOTA



NORBERT E. HEWITT
CUSTOMER SERVICE DEPT.

NEH:LE

SCORPION MINNESOTA

1973 SEASON

SERVICE BULLETIN # 3

JUNE 29, 1972

TO: ALL SCORPION MINNESOTA DEALERS

FROM: CUSTOMER SERVICE DEPARTMENT

DATE: JUNE 29, 1972

SUBJECT: -INTAKE MANIFOLD-ROCKWELL ENGINES

THIS IS TO ADVISE YOU THAT THE INTAKE MANIFOLD ON THE 2F400-6 AND THE 2F440-5 IS DESIGNED SUCH THAT IT CANNOT NORMALLY BE TURNED UPSIDE DOWN ONCE IT HAS BEEN REMOVED AND IS TO BE REINSTALLED ON THE ENGINE. THIS IS TO SAY THAT THE MANIFOLD MUST BE PUT BACK ON IN ONLY ONE POSITION, THAT IS THAT ON THE BOTTOM SIDE OF THE MANIFOLD THERE ARE TWO (2) PROTUSIONS ON THE CASTING BOSS LOWER SIDE. THIS IS SHOWN IN THE ATTACHED DRAWING.

THE REASON FOR THE NON-REVERSIBILITY IS THAT THE PRIMER NIPPLES ARE INSTALLED AT DIFFERENT ANGLES. IT IS VERY IMPORTANT THAT YOU DO NOT INSTALL THE INTAKE MANIFOLD IN THE UPSIDE DOWN POSITION. THIS COULD CREATE A CONDITION THAT THE MANIFOLD WOULD NOT FIT PROPERLY AGAINST THE CYLINDERS, THEREBY ALLOWING AIR TO LEAK AROUND THE GASKET AND THE FLANGE. THIS WOULD CAUSE PISTON AND ENGINE SEIZURE. BE SURE THAT YOU THOROUGHLY UNDERSTAND THIS SERVICE BULLETIN AND THE ATTACHED DRAWING.

SINCERELY,

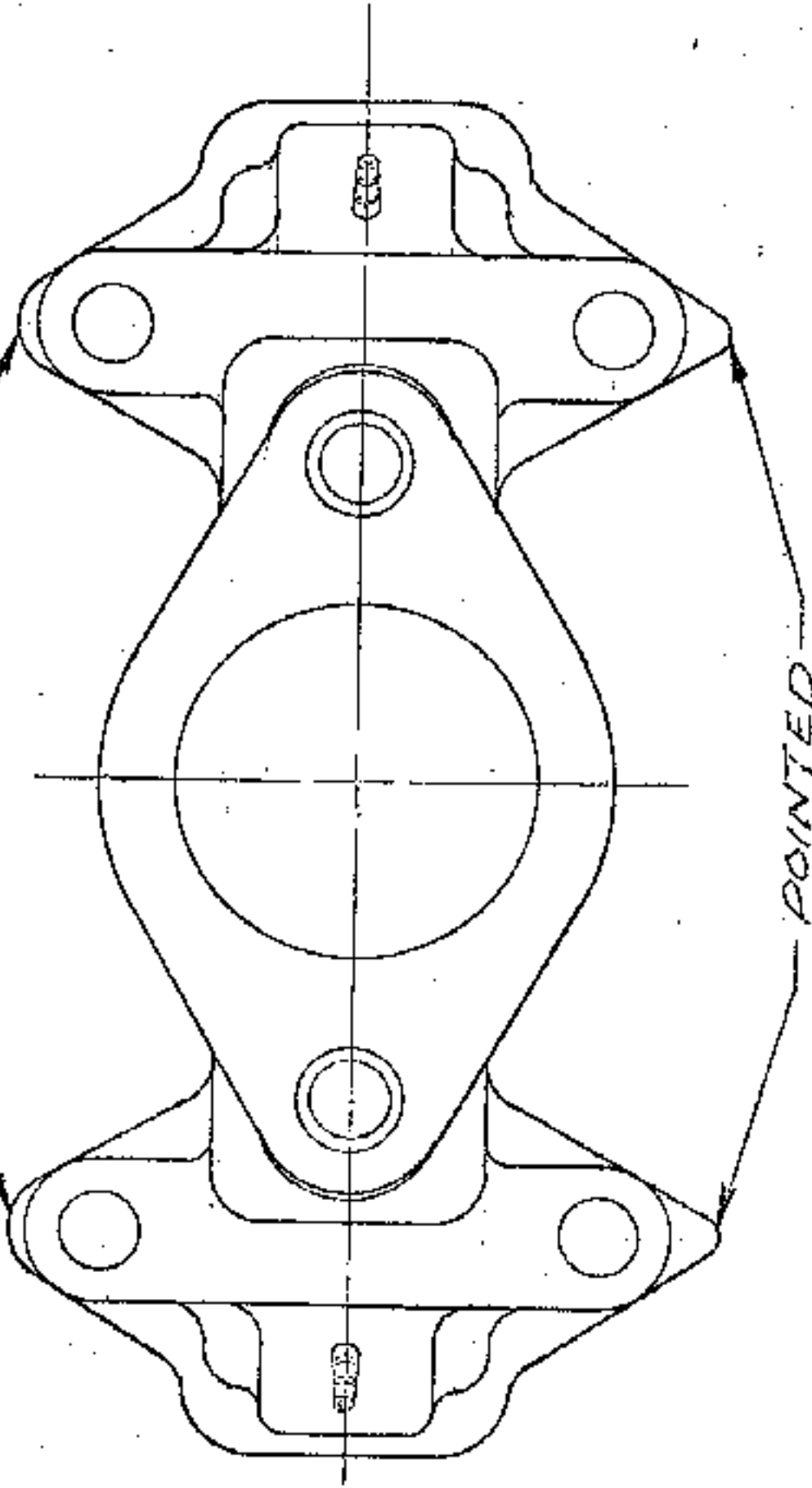
SCORPION MINNESOTA


NORBERT E. HEWITT
CUSTOMER SERVICE

NEH:LE

TOP

ROUNDED



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BOTTOM

SCORPION MINNESOTA

1973 SEASON

SERVICE BULLETIN # 4

JULY 19, 1972

TO: ALL SCORPION MINNESOTA DEALERS

FROM: CUSTOMER SERVICE DEPARTMENT

DATE: JULY 19, 1972

SUBJECT: PRIMER PUMPS - INITIAL ACTIVATION OF FUEL SYSTEMS

IT HAS COME TO THE ATTENTION OF THE SERVICE DEPARTMENT THAT SOME DIFFICULTY HAS BEEN EXPERIENCED IN ACTIVATING THE FUEL SYSTEM OF THE 1973 MODEL SLEDS FOR INITIAL START-UP. FOLLOWING IS A SUGGESTED PROCEDURE OF FUEL SYSTEM ACTIVATION THAT HAS PROVEN TO BE THE MOST EFFECTIVE.

1. FILL FUEL TANK. INSURE THAT THE GAS CAP IS INSTALLED SECURELY.
2. DISCONNECT THE FUEL RETURN LINE FROM THE FUEL TANK FITTING.
3. ATTACH A SHORT LENGTH OF TUBING TO THE FUEL TANK RETURN LINE FITTING.
4. BLOW OR OTHERWISE APPLY LOW PRESSURE TO THE TANK THROUGH THE SHORT TUBE TO FORCE FUEL THROUGH THE SYSTEM.
5. WHEN THE FUEL DISCHARGES OUT THE DISCONNECTED END OF THE RETURN LINE, STOP PRESSURIZATION, REMOVE THE SHORT TUBE AND RECONNECT THE RETURN LINE TO THE FUEL TANK.
6. OPERATE THE PRIMER PUMP TO PRIME THE ENGINE - (SEE NOTE BELOW)

NOTE: DURING INITIAL STROKES OF THE PRIMER PUMP, THE PUMP WILL BE MOVING AIR OUT OF THE PRIMER LINE FROM THE TEE TO THE PUMP, AND THE PUMP BULB WILL HAVE A SOFT OR MUSHY FEEL. THIS WILL OCCUR FOR APPROXIMATELY 6 STROKES.

WHEN THE FUEL REACHES THE PUMP BULB, THE BULB WILL HAVE A "SOLID" FEEL. OPERATE THE PUMP APPROXIMATELY 3 STROKES AFTER THE FUEL ENTERS THE BULB TO INJECT THE CORRECT AMOUNT OF FUEL INTO THE ENGINE INTAKE MANIFOLD.

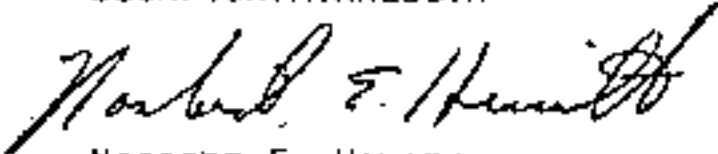
WE HOPE THAT THE TECHNICAL INFORMATION THAT WE HAVE GIVEN YOU IS OF ASSISTANCE TO YOU IN SETTING UP OUR NEW FUEL SYSTEM INCORPORATED IN THE '73 MACHINES. IT IS SOMEWHAT DIFFERENT THAN LAST YEAR AND FOR REASONS OF ACCESSIBILITY FOR THE PRIMER BUTTON AND OF COURSE CUSTOMER SATISFACTION, THIS INFORMATION IS BEING GIVEN NOW SO THAT ANY PROBLEMS IN THE FUTURE CAN BE RECTIFIED BEFORE THE CUSTOMER HAS A COMPLAINT.

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IT MIGHT BE MENTIONED ALSO THAT IF THE CUSTOMER REMOVES HIS FUEL LINE FOR ANY REASON AND DRAINS THE SYSTEM, THAT HE SHOULD BE TOLD THAT THE FUEL LINE MUST BE CHARGED UP IN THE SAME MANNER AS HAS BEEN DESCRIBED TO YOU IN THIS BULLETIN SO AS TO PROPERLY GET THE PRIMER TO DO THE FUNCTION THAT IT IS INTENDED TO DO.

SINCERELY,

SCORPION, MINNESOTA



NORBERT E. HEWITT
CUSTOMER SERVICE DEPARTMENT

NEH:LE

SCORPION MINNESOTA

1973 SEASON

SERVICE BULLETIN # 5

AUGUST 7, 1972

TO: ALL SCORPION MINNESOTA DEALERS

FROM: CUSTOMER SERVICE DEPARTMENT/SCORPION MINNESOTA

SUBJECT: '72-'73 DRIVE CLUTCH ASSEMBLY

IT IS VERY NECESSARY TO CORRECTLY ASSEMBLE THE DRIVE CLUTCH ON ALL '72 - '73 SCORPION POWER THRUST CLUTCHES. IT IS POSSIBLE THAT AN INDIVIDUAL COULD NOT CORRECTLY ALIGN THE BELL COVER WITH THE CORRESPONDING WEIGHT ARMS AND CENTER SHAFT WHEN REASSEMBLING THE CLUTCH AFTER MAINTENANCE SERVICE OR REPAIR. THE PROPER METHOD ON THE '72 CLUTCH IS AS FOLLOWS:

1. LOCATE THE PIMPLE MARK ON THE TORQUE PLUG.
2. LOCATE THE PIMPLE MARK ON THE BELL COVER (TEAR DROP-OUTSIDE)
3. ALIGN BOTH THESE MARKS WITH EACH OTHER AS REFERENCE POINTS AND THEN ALIGN THE CENTER PIMPLES (ON INSIDE OF BELL - CENTER) WITH THE SPLINES ON THE CENTER SHAFT OF THE FIXED SHEAVE.
4. PRESS THE BELL AGAINST THE CENTER SHAFT, BE SURE THE PIMPLES FIT INTO THE SPLINED AREAS, INSTALL THE ROPE DRUM, BOLT/NUT AND TORQUE IT SECURELY IN PLACE (75 FT. LBS.)
5. INSTALL THE DRIVE BELT AND THE CLUTCH GUARD, START THE ENGINE AND IDLE AT APPROXIMATELY 2,000RPM. VISUALLY CHECK THE CLUTCH FOR ANY WOBBLING CONDITION AND THEN CHECK TO SEE IF THE ENGAGEMENT SPEED OF THE CLUTCH, MOVABLE SHEAVE, AGAINST THE BELT OCCURS AT APPROXIMATELY 3,000 RPM.

THE PROPER METHOD ON THE '73 CLUTCH IS AS FOLLOWS:

1. LOCATE THE DOWEL MARK ON THE TORQUE PLUG.
2. LOCATE THE LARGE CORRESPONDING HOLE FOR THE DOWEL ON THE BELL COVER.
3. PLACE THE BELL OVER THE TORQUE PLUG SO THAT THE DOWEL PROTRUDES THROUGH THE HOLE IN THE BELL COVER.
4. PRESS THE BELL AGAINST THE CENTER SHAFT SO THAT THE PIMPLES (ON THE INSIDE CENTER OF THE BELL) ALIGN WITH THE SPLINES ON THE CENTER SHAFT OF THE FIXED SHEAVE.
5. INSTALL THE DRIVE BELT AND THE CLUTCH GUARD, START THE ENGINE AND IDLE AT APPROXIMATELY 2,000 RPM. VISUALLY CHECK THE CLUTCH FOR ANY WOBBLING CONDITION AND THEN CHECK TO SEE IF THE ENGAGEMENT SPEED OF THE CLUTCH, MOVABLE SHEAVE, AGAINST THE BELT OCCURS AT APPROXIMATELY 3,000 RPM.

THIS IS THE PROPER PROCEDURE TO FOLLOW WHEN REASSEMBLING THE SCORPION POWER THRUST CLUTCH. IT IS IMPORTANT THAT THE REPAIR TO THE CLUTCH IS DONE CORRECTLY WHEN SERVICING BECAUSE IMPROPER SERVICING CAN CAUSE DAMAGE TO THE CLUTCH PARTS AND THEREBY ALLOW THE CLUTCH TO FAIL DURING OPERATION.

SCORPION MINNESOTA

Robert E. Hewitt

ROBERT E. HEWITT

SCORPION MINNESOTA

1973 SEASON

SERVICE BULLETIN # 6

AUGUST 7, 1972

TO: ALL SCORPION MINNESOTA DEALERS

FROM: CUSTOMER SERVICE DEPARTMENT/SCORPION MINNESOTA

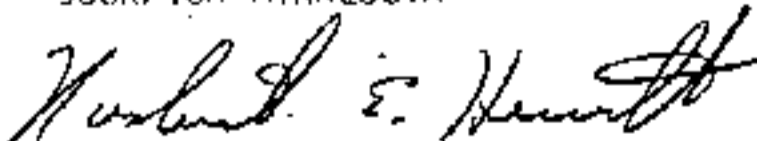
SUBJECT: HEADLIGHT AIMING AND ADJUSTMENT

IT IS VERY IMPORTANT THAT THE HEADLIGHT BE PROPERLY ADJUSTED ON EACH MACHINE WHEN IT IS DELIVERED TO THE CUSTOMER. ATTACHED IS A DRAWING AND SPECIFICATIONS FOR HEADLIGHT ADJUSTMENT. THE FOLLOWING STEPS SHOULD BE PERFORMED:

1. PLACE THE MACHINE ON A LEVEL FLOOR WHERE SPECIFICATIONS HAVE BEEN LAID OUT ACCORDING THE ATTACHED DRAWING.
2. CHECK TO MAKE SURE THAT THE COWL FITS PROPERLY AGAINST THE STOPS (ROLL BAR). THE HOOD MAY BE LEFT LOOSE DURING THE ADJUSTMENTS PROCEDURE BUT MUST BE IN THE "CLOSED" POSITION WHEN CENTER BEAM POSITION IS CHECKED.
3. HAVE THE CUSTOMER SIT ON THE MACHINE IN THE NORMAL OPERATING POSITION.
4. START THE MACHINE AND IDLE THE ENGINE AT 2,000 RPM.
5. PLACE THE HIGH/LOW SWITCH IN THE "HIGH" POSITION.
6. ADJUST THE HEADLIGHT SO THAT THE CENTER BEAM PATTERN IS IN THE PROPER POSITION ON THE WALL OR SCREEN (28'- $\frac{1}{2}$ " INCHES) NOTE: ALL FOUR (4) SCREWS MAY HAVE TO BE ADJUSTED TO ACHIEVE THE PROPER HEADLIGHT ADJUSTMENT CENTER BEAM PATTERN.

THE HEADLIGHT IS NOW ADJUSTED PROPERLY. THE CANOLE POWER REQUIREMENT AT THE PROPER DISTANCE, AS IS REQUIRED BY CANADA AND THE UNITED STATES, WILL NOW BE WITHIN THE PRESCRIBED SPECIFICATIONS.

SCORPION MINNESOTA



ROBERT E. HEWITT
CUSTOMER SERVICE DEPARTMENT

NEH:LC

HEADLIGHT AIMING AND ADJUSTMENT

