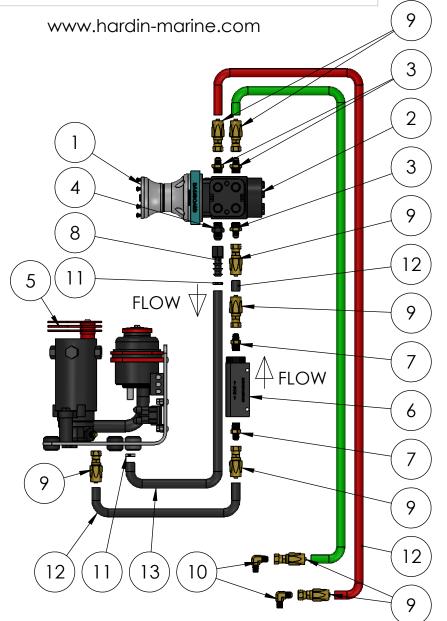
PART NO. HARDIN 11 Industry Dr. Palm Coast, FL 32137 MARINE 386-445-2500 / FAX 386-445-1122 TITLE:

137-9570

OUTBOARD SINGLE RAM INSIDE KIT w/ ELECTRIC POWER STEERING



BOM Table			
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	137-9120	4" STEERING COLUMN	1
2	137-9145	HELM, SINGLE RAM	1
3	137-9360	FITTING, HELM x -6 JIC	3
4	552-980008	FITTING, HELM x-8 JIC	1
5	421-32	ELECTRIC POWER STEERING PUMP	1
6	137-9037	POWER STEERING FILTER	1
7	137-9366	FITTING, 3/8NPT x -6JIC	2
8	552-230008BB	HOSE END, -8	1
9	137-9365	-6 JIC HOSE END	8
10	137-9363	FITTING, 1/4 NPT x -6 JIC	2
11	552-818408	CLAMP, -8 PUSH LOC	2
12	137-9301	HOSE, -6 JIC	80'
13	552-520008	HOSE, -8 PUSH LOC	20'

INSTALLATION INSTRUCTIONS:

- 1) USE ATTACHED INSTRUCTIONS FOR PROPER IŃSTALLATION OF 137-9120 STEERING COLUMN.
- 2) USE ATTACHED INSTRUCTIONS 137-9570 HELM FOR HOSE DIAGRAM TO AND FROM THE HELM.
- 3) USE ATTACHED 421-32 INSTRUCTIONS TO DETERMINE THE PROPER LOCATION FOR THE ELECTRIC POWER STEERING PUMP AND WIRING.
- 4) MOUNT #6 137-9037 FILTER TO BULKHEAD OR STRINGER. MAKE SURE THE FLOW IS POINTING TOWARDS THE HELM. INSTALL #7 137-9366 FITTINGS WITH TEFLON PIPE SEALANT.
- 5) USE HOSE & FITTING INSTALLATION INSTRUCTIONS TO MAKE ALL OF YOUR HOSES.
- 6) THE RETURN SIDE OF THE HELM "T" IS THE LOW PRESSURE SIDE. USE #8 552-230008BB HOSE END AT THE HELM. THE OTHER SIDE OF THE HOSE CONNECTS TO THE BARB AT THE BOTTOM OF THE RESERVOIR. MAKE SURE TO INSTALL #11 552-818408 CLAMPS ON BOTH SIDES OF THE HOSE.
- 7) USE TEFLON PIPE SEALANT TO INSTALL BOTH THE #10 137-9363 INTO THE THRU HULL FITTINGS FOR THE STEERING RAM HOSES.

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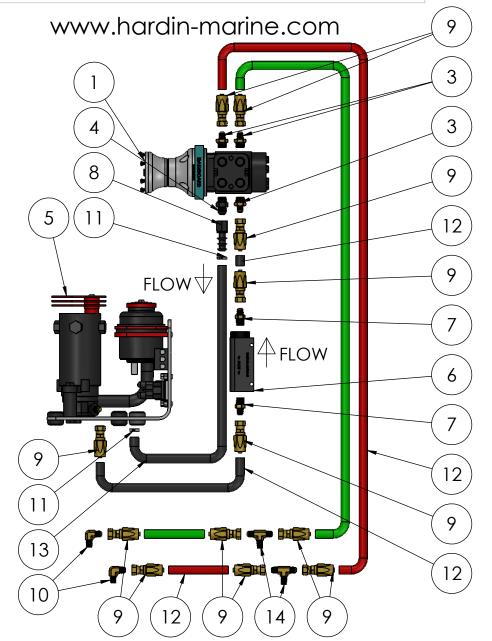
HARDIN

11 Industry Dr. Palm Coast, FL 32137 MARINE 386-445-2500 / FAX 386-445-1122

PART NO.

137-95711

OUTBOARD DUAL RAM INSIDE KIT W/ **ELECTRIC POWER STEERING**



PART NUMBER	DESCRIPTION	QTY.
137-9120	4" STEERING COLUMN	1
137-9146	HELM, DUAL RAM	1
137-9360	FITTING, HELM x -6 JIC	3
552-980008	FITTING, HELM x-8 JIC	1
421-32	ELECTRIC POWER STEERING PUMP	1
137-9037	POWER STEERING FILTER	1
137-9366	FITTING, 3/8NPT x -6JIC	2
552-230008BB	HOSE END, -8	1
137-9365	-6 JIC HOSE END	12
137-9363	FITTING, 1/4 NPT x -6 JIC	2
552-818408	CLAMP, -8 PUSH LOC	2
137-9301	HOSE, -6 JIC	80'
552-520008	HOSE, -8 PUSH LOC	20'
137-9358	TEE, -6JIC TO 1/4 NPT	2
	137-9120 137-9146 137-9360 552-980008 421-32 137-9037 137-9366 552-230008BB 137-9365 137-9363 552-818408 137-9301 552-520008	137-9120 4" STEERING COLUMN 137-9146 HELM, DUAL RAM 137-9360 FITTING, HELM x -6 JIC 552-980008 FITTING, HELM x-8 JIC 421-32 ELECTRIC POWER STEERING PUMP 137-9037 POWER STEERING FILTER 137-9366 FITTING, 3/8NPT x -6 JIC 552-230008BB HOSE END, -8 137-9365 -6 JIC HOSE END 137-9363 FITTING, 1/4 NPT x -6 JIC 552-818408 CLAMP, -8 PUSH LOC 137-9301 HOSE, -6 JIC

INSTALLATION INSTRUCTIONS:

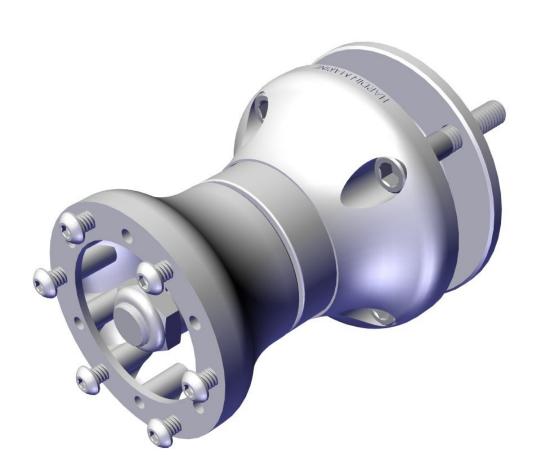
- 1) USE ATTACHED INSTRUCTIONS FOR PROPER INSTALLATION OF 137-9120 STEERING COLUMN. 2) USE ATTACHED INSTRUCTIONS 137-9570 HELM FOR HOSE DIAGRAM TO AND FROM THE HELM. 3) USE ATTACHED 421-32 INSTRUCTIONS TO DETERMINE THE PROPER LOCATION FOR THE ELECTRIC POWER STEERING PUMP AND WIRING. 4) MOUNT #6 137-9037 FILTER TO BULKHEAD OR STRINGER. MAKE SURE THE FLOW IS POINTING TOWARDS THE HELM. INSTALL #7 137-9366 FITTINGS WITH TEFLON PIPE SEALANT. 5) USE HOSE & FITTING INSTALLATION INSTRUCTIONS
- TÓ MAKE ALL OF YOUR HOSES.
- THE RETURN SIDE OF THE HELM "T" IS THE LOW PRESSURE SIDE. USE #8 552-230008BB HOSE END AT THE HELM. THE OTHER SIDE OF THE HOSE CONNECTS TO THE BARB AT THE BOTTOM OF THE RESERVOIR. MAKE SURE TO INSTALL #11 552-818408 CLAMPS ON BOTH SIDES OF THE HOSE.
- 7) USE TEFLON PIPE SEALANT TO INSTALL BOTH THE #10 137-9363 & #14 137-9358 INTO THE THRU HULL FITTINGS FOR THE STEERING RAM HOSES.

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137-9120 137-9121

137-9122

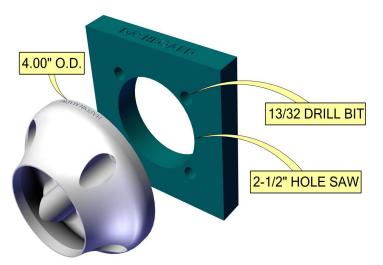


- 137-9120 4" FROM DASH
- 137-9121 6" FROM DASH
- 137-9122 8" FROM DASH



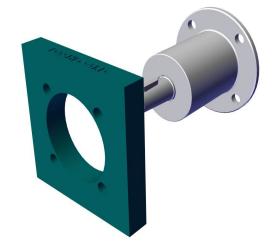
137-9120 137-9121

137-9122



STEP 1:

- CENTERMARK THE CENTER HOLE AND 4 MOUNTING HOLES.
- 2) USE 137-9103 HELM RING TO FIND PLACEMENT ON DASH.
- 3) USE 2-1/2" HOLE SAW FOR CENTER HOLE
- 4) USE 13/32 FOR THE 4 MOUNTING HOLES.

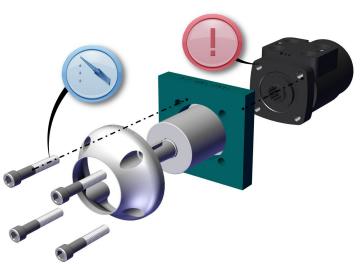


STEP 2:

1) INSTALL STEERING POST FROM BEHIND THE DASH.



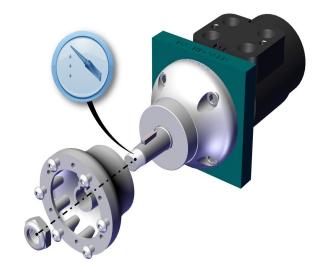
- 1) APPLY BLUE LOCTITE TO THE 3/8 16 x 2.00 LONG BOLTS.
- SLIDE HELM RING OVER POST.
- 3) SCREW BOLTS INTO THE HELM.
- 4) WARNING: MAKE SURE BOLTS DO NOT BOTTOM OUT IN THE HELM BEFORE IT TOUCHES THE POST.





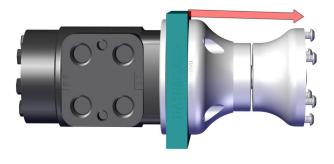
137-9120 137-9121

137-9122



STEP 4:

- 1) APPLY ANTI SIEZE TO THE THREADS.
- 2) SLIDE ADAPTER ON TO SHAFT. IN POSITION WITH KEYWAY.
- 3) TORQUE TO 50 FT. LBS..

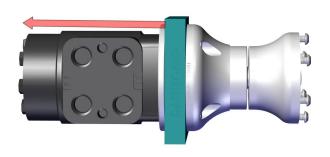


STEERING WHEEL MOUNTING FACE DIMENSION WITH 3/4 THICK DASH

137-9120: 4"

137-9121: 6"

137-9122: 8"



HELM DEPTH BEHIND THE DASH

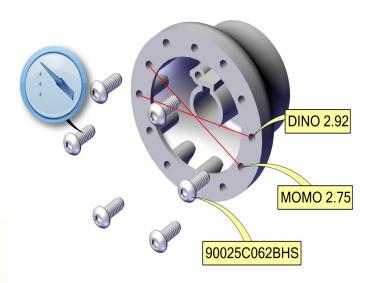
137-9145 SINGLE RAM: 5-3/4"

137-9146 DUAL RAM: 6-1/16"

• 137-9147 QUAD RAM: 6-9/16

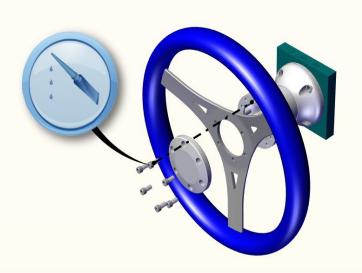


137-9120 137-9121 137-9122



BOLT PATTERN

- MOMO 2.75 BETWEEN CENTERS
- DINO 2.92 BETWEEN CENTERS
- WE SEND WITH 1/4-20 BOLTS.
 USE LOCTITE ON THE BOLTS
 AND TORQUE TO 120 IN. LBS..



OPTIONAL HORN BUTTON

- 137-9130 MOMO
- 137-9131 DINO
- USE THE 1/4-20 BOLTS THAT COME WITH THE HORN BUTTON. USE LOCTITE ON THE BOLTS AND TORQUE TO 120 IN. LBS..

HARDIN MARINE

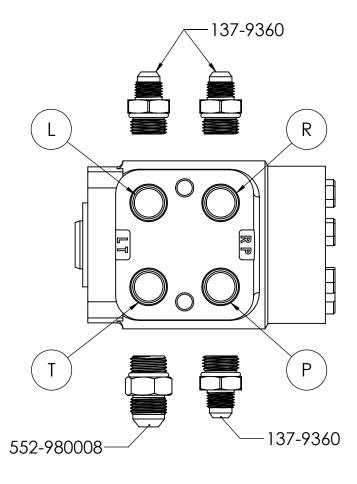
11 Industry Dr. Palm Coast, FL 32137 386-445-2500 / FAX 386-445-1122

PART NO. 137-9570

TITLE:

OUTBOARD INSIDE KIT HELM INSTALLATION

www.hardin-marine.com



INSTALLATION INSTRUCTIONS:

- 1) SAME FOR BOTH SINGLE AND DUAL RAM.
 2) HELM CAN BE INSTALLED AT ANY OF THE 4
- 2) HELM CAN BE INSTALLED AT ANY OF THE 4 90° POSITIONS THAT BEST SUITS THE APPLICATION.
- 3) APPLY OIL TO THE O-RINGS ON ALL 4 FITTINGS.
- 4) 552-980008 IS THE LOW PRESSURE RETURN BACK TO THE BOTTOM OF THE RESERVOIR. FITTING IS INSTALLED INTO THE "T" PORT.
- 5) 137-9360 IS INSTALLED INTO THE REMAINING 3 PORTS.
- 6) "P" PORT IS THE HI PRESSURE IN FROM POWER STEERING PUMP.
- 7) "L" & "R" ARE THE HOSES THAT RUN TO THE THRU HULL FITTINGS IN THE TRANSOM. "L" IS LEFT AND "R' IS RIGHT.

HARDIN 11 Industry Dr. Palm Coast, FL 32137 MARINE 386-445-2500 / FAX 386-445-1122

PART NO.

421-32

Ø4.18

OFF

TITI F.

FLECTRIC POWER STEERING PUMP

www.hardin-marine.com

NOTE:

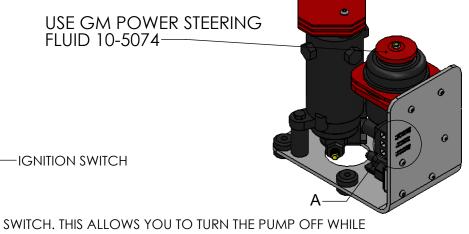
10.91

-6 JIC HI-PRESSURE OUTLET-

THIS PUMP CAN PULL UP TO 60AMPS OF POWER, ANYTHING LESS THAN 8 GAUGE WIRE WILL OVER HEAT THE PUMP AND COULD CAUSE AN ELECTRICAL FIRE.

NOTE:

IT IS IMPORTANT THAT THE ELECTRIC PUMP IS INSTALLED IN A DRY AND WELL VENTILATED AREA. FRESH AIR IS IMPORTANT FOR COOLING!



MIN. 10 AMP SWITCH, THIS ALLOWS YOU TO TURN THE PUMP OFF WHILE STARTING THE MOTOR(S), DRIVING ON LONG STRAIGHT AWAYS OR WHEN IT'S NOT NECESSARY TO RUN. THIS IS A POWER ASSIST SYSTEM WHICH MEANS YOU CAN STEER THE BOAT WITHOUT THE PUMP RUNNING IF NEEDED.

1/2 BARB LOW PRESSURE RETURN 10 45 6.00 Ø.39 6.00 .70

+ FROM BATTERY USE -8 AWG WIRE-- FROM BATTERY USE -8 AWG WIRE + FROM IGNITION USE -12 AWG WIRE DETAIL A **SCALE 1:1**



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Step 1

Cut hose square with fine-tooth hacksaw or cut-off wheel. Clean hose bore.

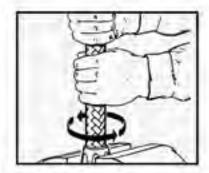


Step 3

SWIVEL ENDS: Tighten nipple and nut on assembly tool.

Lubricate nipple and inside of hose liberally. Use heavy oil or Aeroquip 222070 hose assembly lube.

HOSE & FITTING ASSEMBLY INSTRUCTIONS



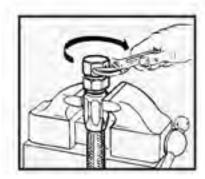
Step 2

Put socket in vise.

Screw hose counterclockwise into socket until it bottoms.

When assembling long lengths of hose, it may be preferred to put hose in vise just tight enough to prevent from turning, and screw socket onto the hose counterclockwise until it bottoms.

Back off 1/4 turn.



Step 4

MALE ENDS: Screw nipple clockwise into socket and hose. Leave a 1/32" to 1/16" clearance between nipple hex and socket.

SWIVEL ENDS: Screw nipple clockwise into socket and hose. Leave 1/32" to 1/16" clearance between nut and socket.

Note: It is the installers responsibility to have all hose assemblies pressure tested to 2000 psi prior to installation.

Hardin Marine 11 Industry Drive Palm Coast, FL 32137 877-900-7278