

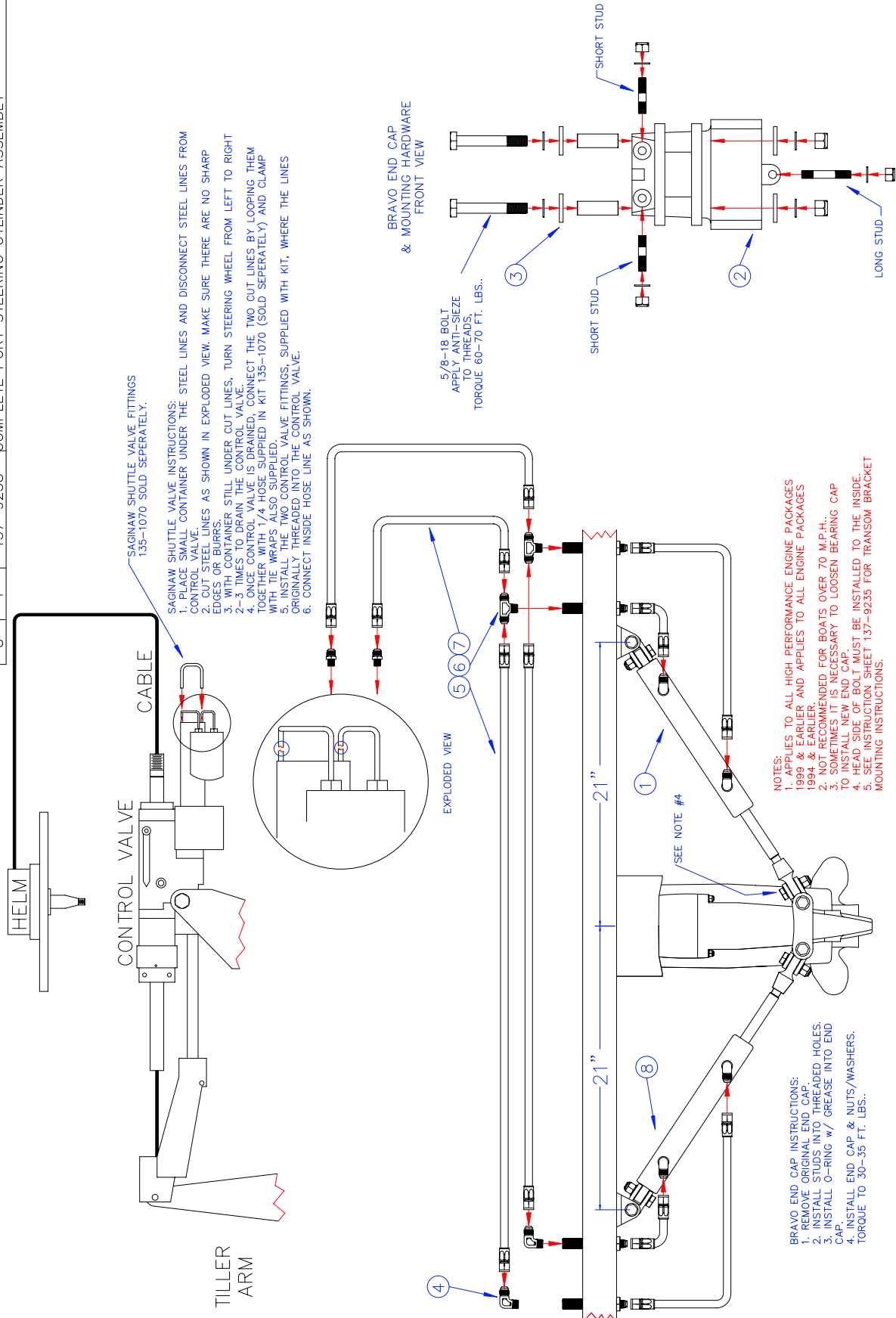
HARDIN MARINE

PART NUMBER: 137-9252S

REVISION: B

DESCRIPTION:
SINGLE BRAVO/DUAL CYLINDER ADD ON STEERING SYSTEM
(SAGINAW SHUTTLE VALVE SYSTEM)

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	137-9254	COMPLETE STARBOARD STEERING CYLINDER ASSEMBLY
2	1	137-9255	BRAVO END CAP KIT
3	2	137-9256	STEERING CYL. TO END CAP BOLT KIT
4	2	137-9347	FITTING, -6 AN x 1/4 NPT - 90° - BRASS
5	2	137-9241	INSIDE HOSE, 63" LONG
6	2	137-9346	FITTING, 1/4 NPT x -6 AN x -6 AN - TEE - BRASS
7	2	137-9233	INSIDE HOSE, 22" LONG
8	1	137-9258	COMPLETE PORT STEERING CYLINDER ASSEMBLY



SAGINAW SHUTTLE VALVE FITTINGS
135-1070 SOLD SEPARATELY.

- SAGINAW SHUTTLE VALVE INSTRUCTIONS:
1. PLACE SMALL CONTAINER UNDER THE STEEL LINES AND DISCONNECT STEEL LINES FROM CONTROL VALVE.
 2. CUT STEEL LINES AS SHOWN IN EXPLODED VIEW. MAKE SURE THERE ARE NO SHARP EDGES OR BURRS.
 3. WITH CONTAINER STILL UNDER CUT LINES, TURN STEERING WHEEL FROM LEFT TO RIGHT 2-3 TIMES TO DRAIN THE CONTROL VALVE.
 4. ONCE CONTROL VALVE IS DRAINED, CONNECT THE TWO CUT LINES BY LOOPING THEM TOGETHER WITH 1/4 HOSE SUPPLIED IN KIT 135-1070 (SOLD SEPARATELY) AND CLAMP WITH TIE WRAPS ALSO SUPPLIED.
 5. INSTALL THE TWO CONTROL VALVE FITTINGS, SUPPLIED WITH KIT, WHERE THE LINES ORIGINALLY THREADED INTO THE CONTROL VALVE.
 6. CONNECT INSIDE HOSE LINE AS SHOWN.

BRAVO END CAP
& MOUNTING HARDWARE
FRONT VIEW

5/8-18 BOLT
APPLY ANTI-SIEZE
TO THREADS,
TORQUE 60-70 FT. LBS..

- NOTES:
1. APPLIES TO ALL HIGH PERFORMANCE ENGINE PACKAGES 1999 & EARLIER AND APPLIES TO ALL ENGINE PACKAGES 1994 & EARLIER.
 2. NOT RECOMMENDED FOR BOATS OVER 70 M.P.H..
 3. SOMETIMES IT IS NECESSARY TO LOOSEN BEARING CAP TO INSTALL NEW END CAP.
 4. HEAD SIDE OF BOLT MUST BE INSTALLED TO THE INSIDE.
 5. SEE INSTRUCTION SHEET 137-9235 FOR TRANSOM BRACKET MOUNTING INSTRUCTIONS.

- BRAVO END CAP INSTRUCTIONS:
1. REMOVE ORIGINAL END CAP.
 2. INSTALL STUDS INTO THREADED HOLES.
 3. INSTALL O-RING w/ GREASE INTO END CAP.
 4. INSTALL END CAP & NUTS/WASHERS. TORQUE TO 30-35 FT. LBS..