TESORO N5521 FUEL LOG (Ensenada to Hiva Oa, Marquesas)

DATE	TIME INTERVAL	TIME HRS/MIN	STARBOARD ER TANK	PORT ER TANK	AVG. GAL/HR	AVG. SPEED	NOTES:
03/12/2023	12:09-18:00	5hrs 51min	25.15		4.3	7.3	Departed Ensenada with 2820 gal of fuel onboard
03/12/2023	18:00-00:41	6 hrs 41 min		28.73	4.3	6.6	
03/13/2023	00:41-08:00	7 hrs 19 min	30.73		4.2	6.8	
03/13/2023	08:00-12:00	4 hrs		17.20	4.3	6.9	
03/13/2023	12:00-20:15	8 hrs 15 min	35.48		4.3	7.0	
03/14/2023	20:15-03:00	6 hrs 45 min		29.02	4.3	6.6	
03/14/2023	03:00-19:45	16 hrs 45 min	70.35		4.2	6.8	
03/15/2023	19:45-18:30	22 hrs 45min		95.55	4.2	7.0	
03/16/2023	18:30-07:34	13 hrs 04 min	56.19		4.3	7.4	
03/16/2023	07:34-18:00	10 hrs 26 min		43.82	4.2	7.4	
03/17/2023	18:00-00:00	6 hrs	25.20		4.2	6.6	
03/17/2023	00:00-0900	9 hrs		38.70	4.3	6.5	Transferred (160 gals) STBD FWD > STBD ER
03/17/2023	09:00-13:15	4 hrs 15 min	18.28		4.3	6.0	Transferred (160 gals) PORT FWD > PORT ER
03/17/2023	13:15-18:30	3 hrs 15 min	13.98		4.3	6.7	
03/18/2023	18:30-00:00	5 hrs 30 min		23.65	4.3	6.8	Transferred (95 gals) FWD CELL > FWD STBD
03/18/2023	00:00-09:00	9 hrs	38.70		4.3	7.4	Transferred (95 gals) FWD CELL > FWD PORT
03/18/2023	09;00-16:30	7 hrs 30 min		32.25	4.3	7.0	
03/18/2023	16;30-00:00	7 hrs 30 min	34.50		4.6	7.3	Increased throttle; 1600 RPM, ~4.7 GPH, to maintain 1.25 NM from MV Stormhaven
03/19/2023	00:00-08:45	8 hr 45 min		39.38	4.5	7.0	Decreased throttle; 1571 RPM, ~4.5 GPH
03/19/2023	08:45-1300	4 hrs 15 min	19.13		4.5	7.0	
03/19/2023	13:00-00:00	11 hrs		49.50	4.5	7.1	
03/20/2023	00:00-08;00	8 hrs	36.80		4.6	7.1	
03/20/2023	08:00-15:15	7 hrs 15 min		33.35	4.6	7.1	Transferred (160 gals) AFT CELL > STBD ER
03/20/2023	15:15-04:15	13 hrs	59.80		4.6	7.1	Transferred (160 gals) AFT CELL > PORT ER
03/21/2023	04:15-11:00	6 hrs 45 min		30.75	4.5	6.5	
03/21/2023	11:00-18:15	7 hrs 15 min	33.35		4.6	6.8	
03/21/2023	18:15-20:15	2 hrs	8.60		4.3	7.0	Throttle was decreased w/ fish on line.
03/21/2023	20:15-00:00	3 hrs 45 min		15.75	4.2	7.0	Throttle increased back to 1575 RPM's
03/22/2023	00:00-10:15	10 hrs 15 mn	46.13		4.5	7.4	
03/23/2023	10:15-00:00	13 hrs 45 min		61.88	4.5	7.4	
03/23/2023	00:00-10:00	10 hrs	46		4.6	7.0	
03/24/2023	10:00-09:15	23 hrs 15 min		104.63	4.5	7.3	
03/24/2023	09:15-15:30	6 hrs 15 min	28.75		4.6	6.7	
03/24/2023	15:30-00:00	8 hrs 30 min		39.10	4.6	6.5	
03/25/2023	00:00-09:30	9 hrs 30min	42.75		4.5	6.9	
03/25/2023	09:30- 17:20	8 hrs 50 min		39.75	4.5	6.8	
03/25/2023	17:20-00:00	6 hrs 40 min	30		4.5	6.9	
03/26/2023	00:00-11.30	11 hrs 30 min		51.75	4.5	7.0	
03/26/2023	11:30-20:00	8 hrs 30 min	39.10		4.6	7.0	
03/27/2023	20:00-11:30	15 hrs 30 min		69.75	4.5	7.5	
03/27/2023	11:30 -03:00	15 hrs 30 min	55.80		3.6	6.9	
03/28/2023	03:00-11:30	8 hrs 30 min		26.35	3.1	6.3	
03/28/2020	11:30-19:45	8 hrs 15 min	26.40		3.2	6.5	
03/29/2023	19:45-02:30	6 hrs 45 min		22.95	3.4	6.9	Transferred (95 gals) FWD STBD > STBD ER

DATE	TIME INTERVAL	TIME HRS/MIN	STARBOARD ER TANK	PORT ER TANK	AVG. GAL/HR	AVG. SPEED	NOTES:
03/29/2023	02:30-06:00	3 hrs 30 min	9.8		2.8	6.5	Transferred (95 gals) FWD PORT > PORT ER
03/29/2023	06:00-07:00	1 hr	N/A	N/A	N/A	N/A	Anchoring in Hiva Oa outside Harbor
03/29/2023	07:00	— — — — — —	— — — — —	ANCHORED	— — — — — —	— — — — — —	
			FUEL ALLOCATION				
TOTAL FUEL AT DEPARTURE			**2820.00 GAL**				Includes N5521 native fuel tanks, 1 - 190 gal FWD fuel bladder, 1 - 320 gal AFT fuel bladder
ER FUEL TANKS AT DEPARTURE			**995.00ER**	**995.00ER**			
FWD FUEL TANKS AT DEPARTURE			**160.00FWD**	**160.00FWD**			Transferred FWD fuel tanks to ER tanks
AFT FUEL CELL 320 GAL			**160.00CELL**	**160.00CELL**			Transferred 160 gal from Aft 320 gal fuel bladder into each ER tank
FWD FUEL CELL 200 GAL			**95.00CELL**	**95.00CELL**			Transferred 95 gal from Fwd 190 gal fuel Cell to each ER tank
TOTAL MAIN ENG. FUEL CONSUMED			**- 830.97**	**- 893.81**			Main Engine fuel consumption from each ER tank after fuel transfers
GENSET FUEL CONSUMPTION			**- 40.00**	**- 40.00**			Genset fuel consumption from each ER tank
CALC REMAINING FUEL ON ARRIV.			**539.03**	**476.19**			
			SUMMARY				
AVERAGE SPEED	6.9 kts/hr						
AVERAGE GPH	4.28 gph						4.1 gph initially, adjusted to 4.28 gph to remain equidistant 1.25 nm from Stormhaven
MAIN ENG. HRS.	401 hrs						
GENERATOR HRS	80 hrs						Generator fuel burn estimated at 1.0 gph averaging 50% load
MAIN ENG. FUEL CONSUMED	1724.78 gal						
GENERATOR FUEL CONSUMED	80.00 gal						
ADDITIONAL FUEL ONBOARD	510.00 gal						
CALC REMAINING FUEL ON ARRIV.	**1015.22 gal**						Total fuel minus total consumed fuel per JD GPH flow meter and est. gen. consumption.
ACTUAL REMAINING FUEL	**1020.00 gal**						*Actual fuel remaining on board on arrival 1020 gals total via sight glass

COMMENTS:

Speed and fuel consumption (per GPS and John Deere Power Tech flow meter) were recorded at 1-2 hour intervals at the time of routine engine room checks.

Overall GPH and SOG are calculated averages of total compiled passage data.

Main engine room tanks appeared to hold 995-1000 gals each as specified; noted from numerous past fuel fills.

Forward fuel tank actual capacity on N5521 is 160 gals each, not 120 gals as specified.

Remaining fuel discrepancy; calculated vs. actual was not significant and could be related to estimated 20 KW genset consumption. (1 - 1.7 GPH, 50% - 100% load difference)

Without the addition of 510 gallon fuel bladders, the remaining fuel on arrival would have left us a 21.8 %fuel reserve.

With the addition of 510 gallon fuel bladders, the remaining fuel on arrival left us with a 36% fuel reserve.

Additional fuel bladders were not necessary, but enabled us to continue to cruise substantially and plan refueling at our convenience. (fuel cost, safety, fuel quality, etc.)