1. First of all I must note that formula (6.135) on page 51 of Your book is right IMHO if we divide it by $\sigma y\sqrt{T_e - t}$: supposing $S_t = S_0 \exp(\sigma(\lambda t + W_t))$, where $\lambda = \frac{\mu}{\sigma} - \frac{\sigma}{2}$, we get

$$
\begin{aligned}
p_{S_{T_e}}(y;S_t) &= \frac{d}{dy}\mathbb{P}\left(S_{T_e} \le y \,\middle|\, L < \min_{u\in[t,T_e]} S_u \le \max_{u\in[t,T_e]} S_u < H \,;S_t\right) && (1)\\
&= \frac{d}{dy}\mathbb{P}\left(\widetilde{W}^{\lambda}_{T_e-t} \le \frac{1}{\sigma}\ln\frac{y}{S_t} \,\middle|\, \frac{1}{\sigma}\ln\frac{L}{S_t} < \min_{u\in[0,T_e-t]} \widetilde{W}^{\lambda}_u \le \max_{u\in[0,T_e-t]} \widetilde{W}^{\lambda}_u < \frac{1}{\sigma}\ln\frac{H}{S_t} \,;S_t\right) && (2)\\
&= \frac{1}{\sigma y}k^{\lambda}_{T_e-t}\left(\frac{1}{\sigma}\ln\frac{y}{S_t}\right) = \frac{1}{\sigma y}k_{T_e-t}\left(\frac{1}{\sigma}\ln\frac{y}{S_t}\right)\exp\left(-\frac{1}{2}\lambda^2(T_e-t) + \frac{\lambda}{\sigma}\ln\frac{y}{S_t}\right) && (3)\\
&= \exp\left(-\frac{1}{2}\lambda^2(T_e-t) + \frac{\lambda}{\sigma}\ln\frac{y}{S_t}\right)\times\\
&\quad \sum_{n=-\infty}^{\infty}\frac{1}{\sigma y\sqrt{2\pi(T_e-t)}}\left[\exp\left(-\frac{\left(\ln\frac{y}{S_t} + 2n\ln\frac{H}{L}\right)^2}{2\sigma^2(T_e-t)}\right) - \exp\left(-\frac{\left(\ln\frac{H^2}{yS_t} + 2n\ln\frac{H}{L}\right)^2}{2\sigma^2(T_e-t)}\right)\right]. && (4)
\end{aligned}
$$

2. The second point is that the notation (6.142) of A_K is really wrong. There should be K instead of L. Moreover IMHO I found more misprints... Take a look, e.g. for the call:

$$
\begin{aligned}
\nu(t) &= e^{-r_{T_e}(T_e-t)}\mathbb{E}^t\left(S_{T_e} - K\right)\mathbb{I}_{[K,H]}\left(S_{T_e}\right)\mathbb{I}_{\{L<\min_{u\in[t,T_e]} S_u \le \max_{u\in[t,T_e]} S_u < H\}} && (5)\\
&= e^{-r_{T_e}(T_e-t)}\int_K^H (y-K)p_{S_{T_e}}(y;t)dy = e^{-r_{T_e}(T_e-t)}\sum_{n=-\infty}^{\infty}\left(S_t\left[Q_1^n - Q_2^n\right] - K\left[P_1^n - P_2^n\right]\right) && (6)
\end{aligned}
$$

Then we can write the following expressions for $Q^n_{1,2}$:

$$
\begin{aligned}
Q_1^n &= \frac{1}{\sigma S_t\sqrt{2\pi(T_e-t)}}\int_K^H \exp\left(-\frac{1}{2}\lambda^2(T_e-t) + \frac{\lambda}{\sigma}\ln\frac{y}{S_t} - \frac{\left(\ln\frac{y}{S_t} + 2n\ln\frac{H}{L}\right)^2}{2\sigma^2(T_e-t)}\right)dy && (7)\\
&\left|\begin{array}{lll} x \triangleq \frac{\ln\frac{y}{S_t}}{\sigma\sqrt{T_e-t}} & y = S_t e^{\sigma\sqrt{T_e-t}x} & H \to A_H \\ & dy = \sigma\sqrt{T_e-t}\,S_t e^{\sigma\sqrt{T_e-t}x}dx & K \to A_K \end{array}\right| && (8)\\
&= \frac{1}{\sqrt{2\pi}}\int_{A_K}^{A_H}\exp\left(-\frac{1}{2}\lambda^2(T_e-t) + (\sigma+\lambda)\sqrt{T_e-t}\,x - \frac{1}{2}\left(x + 2nA_{LH}\right)^2\right)dx && (9)\\
&= \frac{1}{\sqrt{2\pi}}\int_{A_K}^{A_H}\exp\left(-\frac{1}{2}\left[\left(x+2nA_{LH}\right)^2 - 2(\sigma+\lambda)\sqrt{T_e-t}\left(x+2nA_{LH}\right) + (\sigma+\lambda)^2(T_e-t)\right]\right)\times\\
&\qquad \exp\left(-2n(\sigma+\lambda)\sqrt{T_e-t}A_{LH} + \frac{1}{2}(\sigma+\lambda)^2(T_e-t) - \frac{1}{2}\lambda^2(T_e-t)\right)dx && (10)\\
&= \exp\left(-2n(\sigma+\lambda)\sqrt{T_e-t}A_{LH} + \underbrace{\sigma\left(\frac{\sigma}{2}+\lambda\right)}_{//}(T_e-t)\right)\frac{1}{\sqrt{2\pi}}\int_{A_K}^{A_H} e^{-\frac{1}{2}\left[x+2nA_{LH}-(\sigma+\lambda)\sqrt{T_e-t}\right]^2}dx && (11)\\
&= \exp\left(-2n(\sigma+\lambda)\sqrt{T_e-t}A_{LH} + \mu(T_e-t)\right)\times\\
&\quad \left[\mathcal{N}\left(A_H + 2nA_{LH} - (\sigma+\lambda)\sqrt{T_e-t}\right) - \mathcal{N}\left(A_K + 2nA_{LH} - (\sigma+\lambda)\sqrt{T_e-t}\right)\right]. && (12)
\end{aligned}
$$

$$Q_2^n = \frac{1}{\sigma S_t\sqrt{2\pi(T_e-t)}}\int_K^H \exp\left(-\frac{1}{2}\lambda^2\left(T_e-t\right)+\frac{\lambda}{\sigma}\ln\frac{y}{S_t}-\frac{\left(\ln\frac{H^2}{yS_t}+2n\ln\frac{H}{L}\right)^2}{2\sigma^2(T_e-t)}\right)dy \tag{13}$$

$$= \frac{1}{\sqrt{2\pi}}\int_{A_K}^{A_H}\exp\left(-\frac{1}{2}\lambda^2\left(T_e-t\right)+(\sigma+\lambda)\sqrt{T_e-t}\,x-\frac{1}{2}\left(-x+2A_H+2nA_{LH}\right)^2\right)dx \tag{14}$$

$$= \exp\left(2\left(\sigma+\lambda\right)\sqrt{T_e-t}\left(nA_{LH}+A_H\right)+\sigma\left(\frac{\sigma}{2}+\lambda\right)\left(T_e-t\right)\right)\times$$
$$\frac{1}{\sqrt{2\pi}}\int_{A_K}^{A_H}\exp\left(-\frac{1}{2}\left[x-2A_H-2nA_{LH}-\left(\sigma+\lambda\right)\sqrt{T_e-t}\right]^2\right)dx \tag{15}$$

$$= \exp\left(2\left(\sigma+\lambda\right)\sqrt{T_e-t}\left(nA_{LH}+A_H\right)+\mu\left(T_e-t\right)\right)\times$$
$$\left[\mathcal{N}\left(-A_H-2nA_{LH}-\left(\sigma+\lambda\right)\sqrt{T_e-t}\right)-\mathcal{N}\left(A_K-2A_H-2nA_{LH}-\left(\sigma+\lambda\right)\sqrt{T_e-t}\right)\right]. \tag{16}$$

P_1^n and P_2^n are the same as Yours in (6.148)–(6.149). The same problem we have in the case of put. Moreover I want to say that the derivation above looks clear as well as the fact that the expression $\sigma+\lambda=\sigma+\frac{\mu}{\sigma}-\frac{\sigma}{2}=\frac{\mu}{\sigma}-\frac{\sigma}{2}$ is very natural for such formulas!