INFORMATION MODEL OF TURBODRILLING USING THE TELEMETRY SYSTEM BASED ON THE ACCOUNTING OF THE SOUND ENERGY CHARACTERISTICS

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Key words: information model; operation mode; turbodrill; turbodrilling; telemetry system; simulation model [1, 2, 3],). `S δ GSv(t) (

```
\alpha(t)), -
                                                                                           \beta(t),
                                                                         \delta(t),
                                                                                         \gamma(t).
                                     \mu(t) = \alpha(t) + \beta(t) + \gamma(t) ,
                                                                                                    (1)
                                                                           [1, 2, 3],
                                                                                    v(t).
\alpha(t) .
             n(t))
                                                                                             \omega(t),
                                  \alpha(t)
                                  \alpha(t) = \omega(t) \cdot v(t) .
                                                                                                    (2)
                               \mu(t) —
                                                    ( ),
                                                                                       \mu(t)
                          G(t).
                                                                                                    (3)
                                                                           ; G(t)—
    g(t) —
                                          G(t).
   g(t)
                                                                  g(t),
                                                                                    g(t),
                                                                                                [4];
                      g(t)
                                                                                               max [1].
                                                                                                    (4)
                                                       G(t))
                                      W_k.
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\mu(t)
\mu^{2}(t) = k \cdot P_{k}(t) = k \cdot \frac{W_{k}(t)}{T} \quad (
              \mu^2. (\hat{\mu}^2),
                                                                                                         \mu^2(t),
                                                                                                             τ,
                                                                \phi \rightarrow \min (\hat{\mu}^2).
                                                                                                                                                (5)
                                                                                                 \hat{\mu}^2,
                                                                                                                                             arg),
                                                                       \hat{\mu}^2.
                                                             \omega = \arg\min(\hat{\mu}^2).
                                                                                                                                                (6)
       G(t)
                                                                         n(t),
                                   G(t),
                                                                                            G(t) n(t).
                                     \hat{\mu}^2 = \frac{1}{\tau} \int_0^{\tau} \mu^2(t) dt = \frac{1}{\tau} \int_0^{\tau} \left[ \alpha(t) + \beta(t) + \gamma(t) \right]^2 dt.
\gamma(t) \qquad \left[ \alpha(t) + \beta(t) \right] 
            \alpha(t) \beta(t)
                                                                                                                G n, \hat{\mu} (
                                                                                                                                \hat{\mu} = A + B,
       A = \frac{1}{\tau} \int_{0}^{\tau} \left[ \alpha(G, n, t) + \beta(G, n, t) \right]^{2} dt
                         \beta(t), B = \frac{1}{\tau} \int_{0}^{\tau} \gamma^{2}(t) dt —
                                                                                   ( )
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                                                                                                                                 2010152874/03;
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