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| **Опросный лист на центробежный нефтяной насос по API 610 (аналог ГОСТ 32601-2013).** *Questionnaire for centrifugal oil pump according to API (analog GOST 32601-2013)* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Заказчик /** *Client* | |  | | | | | **Позиция /** *Item* | | | | |  | | | | | | | | | **Количество /** *Quantity* | | | | | | | | |  |
| **Объект /** *Site* | |  | | | | | **Назначение насоса /** *Service* | | | | | | | | |  | | | | | | | | | | | | | | |
| **Режим работы, ч/год /** *Operating conditions, h/y* | | | | | | | | | | | | | |  | | | | | | | | | |
| **1.** | **Параметры /** *Parameters* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **1.1** | **Расход, м3/час** / *Rated flow, m3/h* | | |  | | | | | | **1.1.1** | | | **Расход мин. / макс., м3/час** /  *Flow min/max, m3/h* | | | | | | | | | | | |  | | | | | |
| **1.2** | **Напор, м столба жидкости** /  *Head, m (liquid column)* | | | | | | | | |  | | | | | | | | | | | | | | | | | | | | |
| **1.3** | **Давление на входе, бар изб.** / *Inlet pressure, barg* | | |  | | | | | | **1.3.1** | | | **Давление на входе (максимальное), бар изб.** /*Inlet pressure (maximum), barg* | | | | | | | | | | | |  | | | | | |
| **1.4** | **Давление на выходе, бар изб.**/*Outlet pressure, barg* | | |  | | | | | | **1.5** | | | **Кавитационный запас системы, м** / *NPSHa, m* | | | | | | | | | | | |  | | | | | |
|  |  | | |  | | | | | | **1.6** | | | **Макс. давление на закрытую задвижку, бар** / *Max. shut-off pressure, bar* | | | | | | | | | | | |  | | | | | |
| **2.** | **Перекачиваемая среда / *Medium pumped*** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **2.1** | **Состав** / *Composition* | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | |
| **2.2** | **Содержание твердых частиц** / *Particulate content* | | | |  | | | | | **2.2.1** | | | **Размер частиц, мм** / *Particulate dimensions, mm* | | | | | | | | | | | |  | | | | | |
|  | | | | | | | | | | **2.2.2** | | | **Твердость частиц** / *Particulate hardness* | | | | | | | | | | | |  | | | | | |
| **2.3** | **Температура среды (tср.),°C** / *Medium temperature (tm), °C* | **мин** / *min.* | | | |  | | | | | **норм** / *norm* | |  | | | | | | | **макс**/ *max.* | | | | |  | | | | | |
| **2.4** | **Плотность при tраб., кг/м3** / *Density @ tm, kg/m3* |  | | | | | | | | **2.4.1** | | | **Плотность при 20°C, кг/м3** / *Density @ 20°C,kg/m3* | | | | | | | | | | | |  | | | | | |
| **2.5** | **Вязкость при tраб., сСт** / *Viscosity @ tm, cSt* |  | | | | | | | | **2.5.1** | | | **Вязкость при 20°C, сСт** / *Viscosity @ 20°C, cSt* | | | | | | | | | | | |  | | | | | |
| **2.6** | **Давление паров при tраб., бар абс.** / *Vapour pressure @ tm bar abs.* |  | | | | | | | | **2.6.1** | | | **Давление паров при 20°C, бар абс.** / *Vapour pressure @ tm, bar abs.* | | | | | | | | | | | |  | | | | | |
| **2.7** | **Удельная теплоемкость, ккал/кг\*К** / *Specific heat, kcal/kg\*K* |  | | | | | | | | **2.8** | | | **Значение pH /** *pH value* | | | | | | | | | | | |  | | | | | |
| **2.9** | **Полимеразация, кристаллизация** / *Polymerization, crystallization* |  | | | | | | | | **2.9.1** | | | **Другая температура, °C** / *Other temperature, °C* | | | | | | | | | | | |  | | | | | |
| **2.10** | **Коррозионность** / *Corrodibility* |  | | | | | | | | **2.11** | | | **Агрессивные компоненты** /  *Aggressive agents* | | | | | | | | | | | |  | | | | | |
| **2.12** | **Взрывоопасность по ГОСТ Р 51330.11-99** / *Explosion hazard in accordance with GOST R 51330.11-99* |  | | | | | | | | **2.13** | | | **Класс зоны по ГОСТ Р 51330.9-99** / *Zone class in accordance with GOST R 51330.9-99* | | | | | | | | | | | |  | | | | | |
| **3.** | **Тип насоса /** *Pump Type* |  | | | | | | | | **3.1** | | | **Применимые стандарты** /  *Applicable standards* | | | | | | | | | | | |  | | | | | |
| **3.2** | **Конструктивные особенности насоса** / *Construction of the pump* |  | **Горизонтальное положение** /  *Horizontal location* | | | | | | | | | | | | |  | | **Вертикальное положение** / *Vertical location* | | | | | | | | | | | | |
|  | **Консольная конструкция** /  *Overhung* | | | | | | | | | | | | |  | | **Двухопорная конструкция** / *Between bearings* | | | | | | | | | | | | |
|  | **Погружной насос** /  *Submersible pump* | | | | | | | | | | | | |  | | **Полупогружной насос** / *Semisubmersible pump* | | | | | | | | | | | | |
| **Замечания /** *Remarks* | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **4.** | **Тип уплотнения насоса /***Pump sealing type* | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | |
| **4.1** | **Применимые стандарты** /  *Applicable standards* |  | | | | | | | | | | | | | **4.2** | | | **Тип уплотнения** / *Sealing type* | | | | | | |  | | | | | |
| **4.3** | **План промывки** / *Flushing plans* |  | | | | | | | | | | | | | **4.4** | | | **Затворная жидкость** / *Buffer or Barrier liquid* | | | | | | |  | | | | | |
| **Замечания /** *Remarks* | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **5.** | **Привод / *Driven by*** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **5.1** | **Тип привода** / *Driver type* |  | **Электродвигатель** / *Electric motor* | | | | | | |  | | | **Дизель** / *Diesel* | | | | |  | **Турбина** / *Turbine* | | | | |  | | **ЧРП** /  *Variable frequency drive* | | | | |
|  | **В случае привода от электродвигателя:** / *In case of electric motor driven:* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **5.2** | **Частота, Гц** / *Frequency, Hz* |  | | | | | | | | **5.5** | | | **Класс изоляции** /  *Insulation Class* | | | | | | | | | | | |  | | | | | |
| **5.3** | **Количество фаз** / *Phases* |  | | | | | | | | **5.6** | | | **Взрывозащита** /  *Implosion Protection* | | | | | | | | | | | |  | | | | | |
| **5.4** | **Напряжение, В** / *Voltage, V* |  | | | | | | | | **5.7** | | | **Класс защиты** /  *Safety Class* | | | | | | | | | | | |  | | | | | |
| **5.8** | **Частота, Гц /** *Frequency, Hz* |  | | | | | | | | **5.9** | | | **Номинальный ток(если применимо)А** **/** *Rated current (if applicable), A* | | | | | | | | | | | |  | | | | | |
| **Замечания /** *Remarks* | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **6.** | **Муфта /** *Coupling* |  | **с проставком** /  *with spacer* | | | | | | |  | | | **без проставка** /  *without spacer* | | | | | | | | | | | | | | | | | |
| **Замечания /** *Remarks* | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **7.** | **Фундаментная плита /** *Baseplate* |  | **да** / *yes* | | | | | | |  | | | **нет** / *no* | | | | | | | | | | | | | | | | | |
| **Замечания /** *Remarks* | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **9.** | **Расположение /** *Location* |  | **наружное** /  *outdoor* | | | | | | |  | | | **в помещении** / *indoor* | | | | | | | | | | | | | | | | | |
|  | **под навесом** /  *under shed* | | | | | | |  | | | **без навеса** / *without shed* | | | | | | | | | | | | | | | | | |
|  | **с отоплением** /  *with heating* | | | | | | |  | | | **без отопления** / *without heating* | | | | | | | | | | | | | | | | | |
| **9.1** | **Температура окружающей среды, °C** / *Ambient temperature, °C* | **минимум:** / *minimum:* | | | | | |  | | | | | **9.2** | **Температура траспортировки, хранения, °C** /  *Transportation and storage temperature, °C* | | | | | | | | **абсолютный минимум:** / *absolute minimum:* | | | | | | |  | |
| **максимум:** / *maximum:* | | | | | |  | | | | | **средняя наиболее холодной 5-дневки:** / *5 cold days average:* | | | | | | |  | |
| **9.3** | **Относительная влажность, %** / R*elative humidity, %* | **минимум:** / *minimum:* | | | | | |  | | | | | **абсолютный максимум:** / *absolute maximum:* | | | | | | |  | |
| **максимум:** / *maximum:* | | | | | |  | | | | |  | | | | | | |  | |
| **10.** | **Контроль качества и испытания /** *QA inspection and testing* | | | | | |  | | | | | | | | | | | | | | | |  | | | | | | | |
| **Название испытания /** *Test* | | | | | | **БЕЗ ЗАКАЗЧИКА /***NON-WITNESSED* | | | | | | | | | | | | | | | | **C ЗАКАЗЧИКОМ /**  *WITNESSED* | | | | | | | |
| **10.1** | **Гидростатические испытания** / *Hydrostatic test* | | | | | |  | | | | | | | | | | | | | | | |  | | | | | | | |
| **10.2** | **Снятие рабочей характеристики** / *Performance test* | | | | | |  | | | | | | | | | | | | | | | |  | | | | | | | |
| **10.3** | **Кавитационный запас насоса** / *NPSH* | | | | | |  | | | | | | | | | | | | | | | |  | | | | | | | |
| **10.4** | **Определение уровня шума** / *Sound level test* | | | | | |  | | | | | | | | | | | | | | | |  | | | | | | | |
| **10.5** | **Другие испытания:** / *Other tests:* | | | | | |  | | | | | | | | | | | | | | | |  | | | | | | | |
| **11.** | **Запасные части для одного насоса** / *Spare parts per one pump* | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | |
| **12.** | **Датчики и приборы КИП для одного насоса /** *Sensors per one pump* | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | |
| **13.** | **Гарантийные обязательства в формате ( X / Y) в месяцах, где /** *Warranty terms in the format (X / Y) in months, where* **X – количество месяцев с момент ввода в эксплуатацию** X *- number of months from the commissioning date*  **Y – количество месяцев с момента поставки**  *Y - number of months from the delivery date* | | | | | | **12 / 18** | | | | | | | | | | **18 / 24** | | | | | | | | | | **24 / 36** | | | |
|  | | | | | | | | | |  | | | | | | | | | |  | | | |
| **14.** | **Условия поставки /** *Delivery terms* | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | |
| **15.** | **Дополнительные требования /** *Additional Requirements* | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | |
| **16.** | **Примечания /** *Notes* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Контактное лицо /***Contact Person* | |  | | | | | | | | **Телефон /** *Phone* | | | |  | | | | | | | | | | | **Электронный адрес /** *E-mail* | | |  | | |