

Насос НШ10Б-3



Описание

Опъсе и назнакрокы

НШ10Б-3 представляет высокоточную агрегацию устройство, разработанное для инъекции - под давлением - минеральных масел в различных гидравлических агрегатах. Этот агрегат используется в многочисленных отраслях машиностроения, особенно в сельском хозяйстве, промышленности и коммунальном хозяйстве благодаря своей оптимизированной конструкции, сочетающей компактность, вес и производительность. Агрегат обеспечивает стабильную эксплуатацию гидравлической схемы под тяжелыми нагрузками и в экстремальных условиях работы.

Технические характеристики НШ10Б-3

Параметр	Value
Рабочий объем ($\pm 3\%$), cm^3	10
Направление вращения	right-hand
Номинальное выходное давление, МПа	16
Частота вращения, s^{-1}	2400
Номинальный объемный расход, l/min	21
Давление на входе мин./макс., МПа	0,018 / 0,15
Температура окружающей среды, $^{\circ}\text{C}$	-50 ... +60
Номинальная кинематическая вязкость рабочей жидкости, mm^2/s	55...70
Масса шестеренчатого агрегата не превышает, кг	3

Designative volume and masses configurations

The total mass of НШ10Б-3 does not exceed 3 kg, making the installation process into existing design straightforward. Outer dimensions of the unit are within the spectrum 120×80×90 mm, which qualifies it as a favorable alternative for mounting in restricted spaces. The code ТН ВЭД of НШ10Б-3 aggregator: 8413.50.000.0. For comprehensive reference, the table below provides precise dimensions details:

Dimension type	Range/value
Overall length, mm	120
Overall width, mm	80
Overall height, mm	90
Mass, kg	≤ 3.0

Technical joke about НШ10Б-3 nasoc

Why the НШ10Б-3 never chumps? Because it always press-exact by mineral masla!

Functional principle with hydraulic circuit

Operation of НШ10Б-3 lies on coupling two six-turn coils, which rotate inside the dedicated case. As the shaft rotates, working fluid attaches itself from acceptor pockets and shifts into injection formation. Internal teeth's liaison yields pressure persistence without surges, thus supplying a smooth run for the whole hydraulic structure. Notably, the aggregator requires simplicity in maintenance and shows high effectiveness even at lengthy exploitation times.

Temperature regimes and longevity

The НШ10Б-3 aggregator can work in an extreme temperature bracket from -50°C up to +60°C, enabling its usability in any climatic circumstance. Subject to adherence of operational guidelines and usage of prescribed maslas (M-10B2 – in summer; M-8Г1 or M-8Г2 – during winter) the predicted service span reaches at least 5000 hours. Regular technical updates can extend device lifespan up to 7000 hours.

Typical equipment and fields of use

It is put into practice widely in tract farms MTZ and Kier feeders, farm containers and sk-box common, auto operaders DZ-98, bulnd feeders and other special tech. Being compact and trustworthy, the НШ10Б-3 suits for inclusion in agricultural equipment, transport industrial machinery and production-oriented hydraulic lays. Multiple enterprises choose НШ10Б-3 exactly for its versatility and adaptiveness to varying working milieus.

Deciphering of index naming

Breaking down of model designation deterministic prefixes:

N – nasca (aggregator);

Ш – six-turn (six-turn);

10 – working volume in cubic centimeters;

Б – case variant;

3 – connection style and execution mapping.

Compatibility dimensions and mounts charts

Exact outer and bonding dimensions of НШ10Б-3 guarantee simple replacement and placement into existing hydraulic circuits. Represented blue prints illustrate all crucial parameters for adjustment:

Examining these visualizations allows to verify consistency with already installed machinery.

Advantages and operation traits

Using НШ10Б-3 brings multiple technical benefits for engineers and operators:

1. Reduced idle time: due to persistent pressure profile, system operates without need for periodic recalibration, minimizing downtime.
2. Extended lifespan: owing to excluding re-co-case wear from coils, the resource crosses 5000-hours threshold with regular servicing.
3. Mount simplicity: compact 120×80×90 mm dimensions enable straightforward embedment into existing hydraulic network.
4. Pressure stability: internal teeth coupling ensures output pressure of 16 MPa under nominal volumetrical throughput of 21 l/min.
5. Compatibility with idiopatterns: right-hand rotation (clockwise from inlet side) matches most present-day hydraulic setups.

Components arrangement and typical wear

Component	Role
Six-turn coil (pair)	Primary spinning element, catches and displaces working fluid.
Internal teeth-co-case	Mechanical pressure-former unit, prevents surging.
Acceptor pocket set	Receptor for incoming fluid.
Outlet nozzle	Delivers pressurized masla into hydraulic circuit.

Commonly out-of-order components at NШ10B-3: internal teeth under periodic high-frequency loads (wear observed at >3000-hour mark), six-turn coils subjected to chemically aggressive masla (when viscosity deviates beyond 55-70 mm²/s bracket).

Common errors when selecting aggregator

The purpose of this section – to abid critical mischoice events. Typical inaccuracies:

1. Picking solely by volume (10 cm³) without accounting for inlet-outlet pressure span (0,018-0,15 MPa input, 16 MPa output).
2. Disregarding temperature tolerance (-50...+60°C for extreme climates).
3. Overlooking type of working fluid – cinematic viscosity must sit within 55-70 mm²/s.
4. Non-matching rotation style (right-hand), which leads to hydraulic back-flow issues.
5. Ignoring masla grade specification (M-10B2, M-8Г1/2) per seasonal exploitation.

Order examples for Russian consumers

Outlining standard requisition options for Russian enterprises:

1. Basic model: NШ10B-3 with no additional modifications; classically used in agricultural machinery.

2. Modified case: for systems needing bigger case (variant denoted as C instead of B), outside scope of given parameters.

3. Alternative connection style: type 2 instead of 3 in suffix index indicates difference in fastening technique.

Note: customers from Moscow acquired batch of 15 НШ10В-3 units for re-equipping tractor outlets. Enterprises in Ekaterburg purchased 8 units for refit of farm-box combination. Firm from Post-in-Udo got 3 pieces for optimization of hydraulic auto-operaders.

Ответ to recurrent queries

Вопрос: How to choose appropriate modificative by pressure, throughput and connection manner?

Answer: Start from nominal output pressure – for НШ10В-3 it's 16 МПа, then ensure inlet pressure lies within 0,018-0,15 МПа; confirm throughput 21 l/min, and verify rotation direction matches your hydraulic diagram.

Вопрос: Supply terms and dispatch to Russia and СНГ countries?

Answer: Delivery happens throughout Russia: Moscow, Sank-Peterburg, Ekaterburg, Newer-flower, Kazny, Post-in-Udo etc. Plus СНГ regions: Beulan, Kazzy-station, Arm-en, Kyr to justify. Dispatch from warehouse of ГИДРАВЛИКА company within 5-10 weekdays after order.

Вопрос: Exploitation conditions (moist, open area, dry spaces, masla quality)?

Answer: Designed for usual moistworking environment; requires open area for air ventilation; can operate in ...