SKF agricultural Y-bearing units

Relubrication-free units with high performance seal and an advanced locking method increase productivity and profitability

> Today's farmers are under increasing pressure to stay productive for less money, and with less of an environmental impact. But mud, dust, water, sap, straw, stones and more take a heavy toll on the bearings in agricultural applications. Contaminant ingress or lubricant loss from failed seals, as well as locking device problems, often leads to premature bearing failures.

> These early bearing failures reduce a farm's output and profitability, as farmers must devote significant time and money to bearing relubrication, maintenance and replacement units. For OEMs, premature failures increase warranty costs and can damage customer relationships. SKF agricultural Y-bearing units can prevent such problems for OEMs and end users alike.

Developed specifically for agricultural applications, SKF agricultural Y-bearing units are designed to withstand the toughest operating conditions, reduce downtime and reduce environmental impact. Suitable for normal and demanding applications, SKF agricultural Y-bearing units are relubrication-free and feature a robust, five-lip seal design, an advanced, truly concentric locking method, and optional corrosion protection.



Benefits

0EMs

- Extend service life 30 to 50%*
- Differentiate designs
- Reduce warranty, engineering, testing and assembly costs

• End users

- Increase farm productivity
- Reduce maintenance and
- ownership costs
- Reduce environmental impact

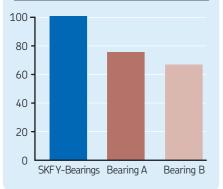
• Applications

- Combines and combine headers
- Balers
- Harvesters
- Hay tools/conditioner mowers
- Tillage gang disc/disc harrows
- Rolling cultivators/grain drills

SKF agricultural Y-bearing units - testing*

Condition	Result
Mud Vegetal fiber Dust High water pressure Climatic cell Sand and stone High air pressure Friction	+ Productivity + Productivity + Productivity + Productivity + Productivity + Productivity + Productivity + Reduced environmental impact

Operational testing* – service life in mud (%)



Four+ years in the field, less time on maintenance

To see how the high-performance, virtually maintenance-free SKF agricultural Y-bearing units compare to conventional units, SKF conducted a series of extensive laboratory and field tests. Results confirm that SKF agricultural Y-bearing units can significantly outlast and outperform conventional insert bearing units.

Thanks largely to their relubrication-free, five-lip seal design, SKF agricultural Y-bearing units will last four years or more, versus the one- to three-year life cycle of conventional bearings. SKF agricultural Y-bearing units with the SKF ConCentra advanced locking method will extend service life even further, as will those with optional corrosionresistance.

The bottom line? SKF agricultural Y-bearing units can extend service life as much as 30 to 50%*, enabling farmers to spend more time in the field. OEMs can also benefit by differentiating their designs and delivering improved reliability.

Reduced ownership costs for farmers

Due to their increased service life and relubrication-free design, SKF agricultural Y-bearing units help reduce maintenance and ownership costs. SKF agricultural Y-bearing units with the SKF ConCentra advanced locking method cut repair demands even more. Farmers can spend less time and money on costly repairs and relubrication, and more time on profitable activities.

Reduced management costs for OEMs

SKF agricultural Y-bearing units enable OEMs to purchase a total design solution from a single source, thus reducing a range of management expenses, including warranty, engineering, testing and assembly costs.

Reduced environmental impact

Because they require no relubrication, SKF agricultural Y-bearing units can significantly reduce grease consumption, saving up to 200 kg* over the service life of a machine. The robust, five-lip seal design also helps keep grease from contaminating crops, soil, or groundwater supplies. Farmers can reduce their environmental impact, while OEMs can demonstrate their commitment to more environmentally friendly designs.









SKF agricultural Y-bearing units not only reduce lubricant use significantly, they reduce the risk of lubricant leakage, helping to protect both the environment and crops from contamination.

Product description

SKF agricultural Y-bearing units feature a five-lip seal and a greased-for-life bearing in two standard designs:

- YELAG Y-bearings feature an eccentric locking collar, and are intended for normal application conditions
- YSPAG Y-bearings feature the SKF Con-Centra concentric locking method, and are specifically designed for demanding applications in terms of loads and speeds

These two solutions allow for a great deal of design flexibility. Both configurations offer optional corrosion resistance on one or both rings to protect against high-pressure washdowns and other sources of moisture. Other bearing series are available on demand with grub screw locking or hexagonal and square bores. Bearings with cylindrical outer rings or standard seals on one side complete the optional offer.

Advanced sealing design, materials and performance

The seals within SKF agricultural Y-bearings units consist of a stamped steel insert, with a vulcanized five-lip patented seal made from a low-friction compound. These unique seals deliver several benefits:

- The steel insert protects the bearings from solid contaminants, anchoring the complete, vulcanized seal to the bearing outer ring
- Each lip of the vulcanized seal features a different design to provide superior sealing performance in response to different operating conditions, including ring misalignment

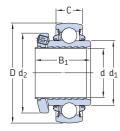
- The outermost and innermost lips act as a labyrinth, preventing contaminant ingress and grease leakage, respectively
- The three inner lips retain constant contact with the inner ring shoulder.

The SKF ConCentra ball bearing version features a true concentric locking method that facilitates mounting and protects against failures caused by locking device problems. The true concentric mounting enables bearing arrangements to operate at higher speeds with less vibration, resulting in quieter operation and extended service life.

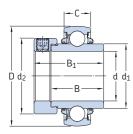
For more information about SKF's product range and wide assortment of housings, contact your SKF representative, or visit us at www.skf.com/agrisolutions.











YSPAG									
Designation	Dimensions							Basic load ratings	
	d	D	B ₁ ~	С	d ₁ ~	d ₂ ~	С	C ₀	load limit P _u
	mm/inch	mm					Ν		
YSPAG 205	25	52	33	15	33,7	40,6	14 000	7 800	335
YSPAG 205-100	1	52	33	TD	55,7	40,0	14 000	/ 600	222
YSPAG 206	30	62	37	18	39,7	48	19 500	11 200	475
YSPAG 206-103	1.1875				,				
YSPAG 207-104	1,25	72	39,5	19	46,1	57	25 500	15 300	655
YSPAG 207-106	1.375								
YSPAG 207 YSPAG 207-107	35 1.4375								
YSPAG 207-107 YSPAG 208-108	1.4375	80	42,9	21	51,8	62	30 700	19000	800
YSPAG 208	40	00	42,7	21	51,0	02	50700	17000	000
YSPAG 209-111	1.6875	85	44	22	56,8	67	33 200	21 600	915
YSPAG 209	45								
YSPAG 210-115	1.9375	90	46	22	62,5	72	35 100	23 200	980
YSPAG 210	50								

YELAG										
Designation	Dimensions								Basic load ratings	
	d	D	B ₁	В	С	d ₁ ~	d ₂ max	С	C ₀	load limit P _u
	mm/incl	mm/inch mm								
YELAG 204 YELAG 205 YELAG 205-100 YELAG 206-102 YELAG 206-103 YELAG 206-103 YELAG 207-104 YELAG 207-106	20 25 1 1.125 30 1.1875 1.25 1.375	47 52 62 72	43,7 44,4 48,4 51,1	34,2 34,9 36,5 37,6	14 15 18 19	28,2 33,7 39,7 46,1	33,3 38,1 44,5 55,6	12 700 14 000 19 500 25 500	6 550 7 800 11 200 15 300	280 335 475 655
YELAG 207 YELAG 207-107 YELAG 208-108 YELAG 208 YELAG 209-111 YELAG 209-112 YELAG 209 YELAG 209 YELAG 210-115 YELAG 210	35 1.4375 1.5 40 1,6875 1.75 45 1.9375 50	80 85 90	56,3 56,3 62,7	42,75 42,75 49,15	21 22 22	51,8 56,8 62,5	60,3 63,5 69,9	30 700 33 200 35 100	19 000 21 600 23 200	800 915 980

Note: YELAG Y-bearing units are intended for normal application conditions while YSPAG Y-bearing units are specifically designed for demanding applications in terms of loads and speeds. Please contact SKF to chose the right Y-bearing units for your application.

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