



Summary 85/1

ZF marine gears for work boats

ZAHNRADFABRIK FRIEDRICHSHAFEN AG









ZF marine gears for work

| Type | Gearbox configuration | Shaft mm | Power output kW HP (max) | Ratio | | Range of rpm | Input speed rev/min | Output speed rev/min | Oil capacity (approx.) litre | Mass (incl. oil) kg |
|---------|-----------------------|-------------|-----------------------------------|---------|---------|--------------------|---------------------------|----------------------------|---------------------------------------|------------------------------|
| | | | | forward | reverse | | | | | |
| ZF 100 | | 100 | 31.5/43 | 1.0 | 1.0 | 100 | 2000 | 100 | 10 | 100 |
| ZF 100S | | | | 0.85 | 0.8 | | | | | 100 |
| ZF 100L | | | | 0.85 | 0.8 | | | | | 100 |
| ZF 100R | | | | 0.8 | 0.75 | | | | | 100 |
| ZF 120 | | 120 | 41.5/57 | 1.0 | 1.0 | 100 | 2000 | 100 | 10 | 120 |
| ZF 120S | | | | 0.85 | 0.8 | | | | | 120 |
| ZF 120L | | | | 0.85 | 0.8 | | | | | 120 |
| ZF 120R | | | | 0.8 | 0.75 | | | | | 120 |
| ZF 150 | | 150 | 52/71 | 1.0 | 1.0 | 100 | 2000 | 100 | 10 | 150 |
| ZF 150S | | | | 0.85 | 0.8 | | | | | 150 |
| ZF 150L | | | | 0.85 | 0.8 | | | | | 150 |
| ZF 150R | | | | 0.8 | 0.75 | | | | | 150 |
| ZF 180 | | 180 | 63/86 | 1.0 | 1.0 | 100 | 2000 | 100 | 10 | 180 |
| ZF 180S | | | | 0.85 | 0.8 | | | | | 180 |
| ZF 180L | | | | 0.85 | 0.8 | | | | | 180 |
| ZF 180R | | | | 0.8 | 0.75 | | | | | 180 |
| ZF 220 | | 220 | 77/106 | 1.0 | 1.0 | 100 | 2000 | 100 | 10 | 220 |
| ZF 220S | | | | 0.85 | 0.8 | | | | | 220 |
| ZF 220L | | | | 0.85 | 0.8 | | | | | 220 |
| ZF 220R | | | | 0.8 | 0.75 | | | | | 220 |
| ZF 270 | | 270 | 93/127 | 1.0 | 1.0 | 100 | 2000 | 100 | 10 | 270 |
| ZF 270S | | | | 0.85 | 0.8 | | | | | 270 |
| ZF 270L | | | | 0.85 | 0.8 | | | | | 270 |
| ZF 270R | | | | 0.8 | 0.75 | | | | | 270 |
| ZF 330 | | 330 | 111/151 | 1.0 | 1.0 | 100 | 2000 | 100 | 10 | 330 |
| ZF 330S | | | | 0.85 | 0.8 | | | | | 330 |
| ZF 330L | | | | 0.85 | 0.8 | | | | | 330 |
| ZF 330R | | | | 0.8 | 0.75 | | | | | 330 |
| ZF 400 | | 400 | 133/182 | 1.0 | 1.0 | 100 | 2000 | 100 | 10 | 400 |
| ZF 400S | | | | 0.85 | 0.8 | | | | | 400 |
| ZF 400L | | | | 0.85 | 0.8 | | | | | 400 |
| ZF 400R | | | | 0.8 | 0.75 | | | | | 400 |

Specifications are performance standards. The permitted maximum independent practical operating conditions depend on the gear configuration.

for work boats, basic versions

| Motor reference number (kW) | Max. rev./ min. (rpm) | Type | Motor configuration | DIN A code | Power output [kW] | | Ratios standard / special | | Range of rotates | Start current max. sec. | Wiring system max. sec. | Oil capacity liters (l) | Weight incl. motor (kg) |
|--------------------------------------|--------------------------------|---------|---|---------------|-------------------------|---------|------------------------------|---------|------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| | | | | | standard | special | standard | special | | | | | |
| 20 | 900 | DPM 100 |  | 100 | 0.000 | 0.000 | 1.0 | 1000 | 0.15 | 1000 | 0.15 | 10 | 100 |
| | | | | | 0.000 | 0.000 | | | | | | | |
| | | | | | 0.000 | 0.000 | | | | | | | |
| | | | | | 0.000 | 0.000 | | | | | | | |
| | | | | | 0.000 | 0.000 | | | | | | | |
| 0.000 | 0.000 | | | | 1.0 | 1000 | 0.15 | 1000 | 0.15 | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | 1.0 | 1000 | 0.15 | 1000 | 0.15 | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | 1.0 | 1000 | 0.15 | 1000 | 0.15 | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 30 | 900 | DPM 100 |  | 100 | 0.000 | 0.000 | 1.0 | 1000 | 0.15 | 1000 | 0.15 | 10 | 100 |
| | | | | | 0.000 | 0.000 | | | | | | | |
| | | | | | 0.000 | 0.000 | | | | | | | |
| | | | | | 0.000 | 0.000 | | | | | | | |
| | | | | | 0.000 | 0.000 | | | | | | | |
| 0.000 | 0.000 | | | | 1.0 | 1000 | 0.15 | 1000 | 0.15 | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | 1.0 | 1000 | 0.15 | 1000 | 0.15 | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 40 | 900 | DPM 100 |  | 100 | 0.000 | 0.000 | 1.0 | 1000 | 0.15 | 1000 | 0.15 | 10 | 100 |
| | | | | | 0.000 | 0.000 | | | | | | | |
| | | | | | 0.000 | 0.000 | | | | | | | |
| | | | | | 0.000 | 0.000 | | | | | | | |
| | | | | | 0.000 | 0.000 | | | | | | | |
| 0.000 | 0.000 | | | | 1.0 | 1000 | 0.15 | 1000 | 0.15 | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | 1.0 | 1000 | 0.15 | 1000 | 0.15 | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 50 | 900 | DPM 100 |  | 100 | 0.000 | 0.000 | 1.0 | 1000 | 0.15 | 1000 | 0.15 | 10 | 100 |
| | | | | | 0.000 | 0.000 | | | | | | | |
| | | | | | 0.000 | 0.000 | | | | | | | |
| | | | | | 0.000 | 0.000 | | | | | | | |
| | | | | | 0.000 | 0.000 | | | | | | | |
| 0.000 | 0.000 | | | | 1.0 | 1000 | 0.15 | 1000 | 0.15 | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | 1.0 | 1000 | 0.15 | 1000 | 0.15 | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 60 | 900 | DPM 100 |  | 100 | 0.000 | 0.000 | 1.0 | 1000 | 0.15 | 1000 | 0.15 | 10 | 100 |
| | | | | | 0.000 | 0.000 | | | | | | | |
| | | | | | 0.000 | 0.000 | | | | | | | |
| | | | | | 0.000 | 0.000 | | | | | | | |
| | | | | | 0.000 | 0.000 | | | | | | | |
| 0.000 | 0.000 | | | | 1.0 | 1000 | 0.15 | 1000 | 0.15 | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | 1.0 | 1000 | 0.15 | 1000 | 0.15 | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 70 | 900 | DPM 100 |  | 100 | 0.000 | 0.000 | 1.0 | 1000 | 0.15 | 1000 | 0.15 | 10 | 100 |
| | | | | | 0.000 | 0.000 | | | | | | | |
| | | | | | 0.000 | 0.000 | | | | | | | |
| | | | | | 0.000 | 0.000 | | | | | | | |
| | | | | | 0.000 | 0.000 | | | | | | | |
| 0.000 | 0.000 | | | | 1.0 | 1000 | 0.15 | 1000 | 0.15 | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | 1.0 | 1000 | 0.15 | 1000 | 0.15 | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |
| 0.000 | 0.000 | | | | | | | | | | | | |

Scope of supplies

| Item | GVA | | | | | | BWS |
|----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----|
| | 1999-2001 | 2002-2004 | 2005-2007 | 2008-2010 | 2011-2013 | 2014-2016 | |
| Construction* | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Construction of new buildings | 0 | ■ | 0 | 0 | 0 | | 0 |
| Renovating | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other new buildings | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other new buildings | ■ | ■ | ■ | ■ | ■ | - | - |
| Other buildings | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Operational change | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other renovation measures | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| electrical | | 0 | 0 | 0 | 0 | 0 | 0 |
| plumbing | | | | 0 | 0 | 0 | 0 |
| Other building cost | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| other | | 0 | 0 | 0 | 0 | 0 | 0 |
| Energy | 0 | ■ | ■ | ■ | ■ | ■ | ■ |
| Renovating | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| electrical | | 0 | 0 | | 0 | 0 | 0 |
| plumbing cost | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Energy supply | ■ | 0 | 0 | ■ | ■ | ■ | ■ |
| Energy cost | | 0 | 0 | | | | |
| Equipment | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

■ New costs

0 Operation of supplies

0 In equipment

* Includes gas for energy generation

■ Includes other costs, e.g. for energy generation equipment or other

Renovating measures include energy



The picture shows the range of the
 various systems of 2D, 3D, 4D, 5D, 6D, 7D, 8D, 9D, 10D, 11D, 12D, 13D, 14D, 15D, 16D, 17D, 18D, 19D, 20D, 21D, 22D, 23D, 24D, 25D, 26D, 27D, 28D, 29D, 30D, 31D, 32D, 33D, 34D, 35D, 36D, 37D, 38D, 39D, 40D, 41D, 42D, 43D, 44D, 45D, 46D, 47D, 48D, 49D, 50D, 51D, 52D, 53D, 54D, 55D, 56D, 57D, 58D, 59D, 60D, 61D, 62D, 63D, 64D, 65D, 66D, 67D, 68D, 69D, 70D, 71D, 72D, 73D, 74D, 75D, 76D, 77D, 78D, 79D, 80D, 81D, 82D, 83D, 84D, 85D, 86D, 87D, 88D, 89D, 90D, 91D, 92D, 93D, 94D, 95D, 96D, 97D, 98D, 99D, 100D, 101D, 102D, 103D, 104D, 105D, 106D, 107D, 108D, 109D, 110D, 111D, 112D, 113D, 114D, 115D, 116D, 117D, 118D, 119D, 120D, 121D, 122D, 123D, 124D, 125D, 126D, 127D, 128D, 129D, 130D, 131D, 132D, 133D, 134D, 135D, 136D, 137D, 138D, 139D, 140D, 141D, 142D, 143D, 144D, 145D, 146D, 147D, 148D, 149D, 150D, 151D, 152D, 153D, 154D, 155D, 156D, 157D, 158D, 159D, 160D, 161D, 162D, 163D, 164D, 165D, 166D, 167D, 168D, 169D, 170D, 171D, 172D, 173D, 174D, 175D, 176D, 177D, 178D, 179D, 180D, 181D, 182D, 183D, 184D, 185D, 186D, 187D, 188D, 189D, 190D, 191D, 192D, 193D, 194D, 195D, 196D, 197D, 198D, 199D, 200D, 201D, 202D, 203D, 204D, 205D, 206D, 207D, 208D, 209D, 210D, 211D, 212D, 213D, 214D, 215D, 216D, 217D, 218D, 219D, 220D, 221D, 222D, 223D, 224D, 225D, 226D, 227D, 228D, 229D, 230D, 231D, 232D, 233D, 234D, 235D, 236D, 237D, 238D, 239D, 240D, 241D, 242D, 243D, 244D, 245D, 246D, 247D, 248D, 249D, 250D, 251D, 252D, 253D, 254D, 255D, 256D, 257D, 258D, 259D, 260D, 261D, 262D, 263D, 264D, 265D, 266D, 267D, 268D, 269D, 270D, 271D, 272D, 273D, 274D, 275D, 276D, 277D, 278D, 279D, 280D, 281D, 282D, 283D, 284D, 285D, 286D, 287D, 288D, 289D, 290D, 291D, 292D, 293D, 294D, 295D, 296D, 297D, 298D, 299D, 300D, 301D, 302D, 303D, 304D, 305D, 306D, 307D, 308D, 309D, 310D, 311D, 312D, 313D, 314D, 315D, 316D, 317D, 318D, 319D, 320D, 321D, 322D, 323D, 324D, 325D, 326D, 327D, 328D, 329D, 330D, 331D, 332D, 333D, 334D, 335D, 336D, 337D, 338D, 339D, 340D, 341D, 342D, 343D, 344D, 345D, 346D, 347D, 348D, 349D, 350D, 351D, 352D, 353D, 354D, 355D, 356D, 357D, 358D, 359D, 360D, 361D, 362D, 363D, 364D, 365D, 366D, 367D, 368D, 369D, 370D, 371D, 372D, 373D, 374D, 375D, 376D, 377D, 378D, 379D, 380D, 381D, 382D, 383D, 384D, 385D, 386D, 387D, 388D, 389D, 390D, 391D, 392D, 393D, 394D, 395D, 396D, 397D, 398D, 399D, 400D, 401D, 402D, 403D, 404D, 405D, 406D, 407D, 408D, 409D, 410D, 411D, 412D, 413D, 414D, 415D, 416D, 417D, 418D, 419D, 420D, 421D, 422D, 423D, 424D, 425D, 426D, 427D, 428D, 429D, 430D, 431D, 432D, 433D, 434D, 435D, 436D, 437D, 438D, 439D, 440D, 441D, 442D, 443D, 444D, 445D, 446D, 447D, 448D, 449D, 450D, 451D, 452D, 453D, 454D, 455D, 456D, 457D, 458D, 459D, 460D, 461D, 462D, 463D, 464D, 465D, 466D, 467D, 468D, 469D, 470D, 471D, 472D, 473D, 474D, 475D, 476D, 477D, 478D, 479D, 480D, 481D, 482D, 483D, 484D, 485D, 486D, 487D, 488D, 489D, 490D, 491D, 492D, 493D, 494D, 495D, 496D, 497D, 498D, 499D, 500D, 501D, 502D, 503D, 504D, 505D, 506D, 507D, 508D, 509D, 510D, 511D, 512D, 513D, 514D, 515D, 516D, 517D, 518D, 519D, 520D, 521D, 522D, 523D, 524D, 525D, 526D, 527D, 528D, 529D, 530D, 531D, 532D, 533D, 534D, 535D, 536D, 537D, 538D, 539D, 540D, 541D, 542D, 543D, 544D, 545D, 546D, 547D, 548D, 549D, 550D, 551D, 552D, 553D, 554D, 555D, 556D, 557D, 558D, 559D, 560D, 561D, 562D, 563D, 564D, 565D, 566D, 567D, 568D, 569D, 570D, 571D, 572D, 573D, 574D, 575D, 576D, 577D, 578D, 579D, 580D, 581D, 582D, 583D, 584D, 585D, 586D, 587D, 588D, 589D, 590D, 591D, 592D, 593D, 594D, 595D, 596D, 597D, 598D, 599D, 600D, 601D, 602D, 603D, 604D, 605D, 606D, 607D, 608D, 609D, 610D, 611D, 612D, 613D, 614D, 615D, 616D, 617D, 618D, 619D, 620D, 621D, 622D, 623D, 624D, 625D, 626D, 627D, 628D, 629D, 630D, 631D, 632D, 633D, 634D, 635D, 636D, 637D, 638D, 639D, 640D, 641D, 642D, 643D, 644D, 645D, 646D, 647D, 648D, 649D, 650D, 651D, 652D, 653D, 654D, 655D, 656D, 657D, 658D, 659D, 660D, 661D, 662D, 663D, 664D, 665D, 666D, 667D, 668D, 669D, 670D, 671D, 672D, 673D, 674D, 675D, 676D, 677D, 678D, 679D, 680D, 681D, 682D, 683D, 684D, 685D, 686D, 687D, 688D, 689D, 690D, 691D, 692D, 693D, 694D, 695D, 696D, 697D, 698D, 699D, 700D, 701D, 702D, 703D, 704D, 705D, 706D, 707D, 708D, 709D, 710D, 711D, 712D, 713D, 714D, 715D, 716D, 717D, 718D, 719D, 720D, 721D, 722D, 723D, 724D, 725D, 726D, 727D, 728D, 729D, 730D, 731D, 732D, 733D, 734D, 735D, 736D, 737D, 738D, 739D, 740D, 741D, 742D, 743D, 744D, 745D, 746D, 747D, 748D, 749D, 750D, 751D, 752D, 753D, 754D, 755D, 756D, 757D, 758D, 759D, 760D, 761D, 762D, 763D, 764D, 765D, 766D, 767D, 768D, 769D, 770D, 771D, 772D, 773D, 774D, 775D, 776D, 777D, 778D, 779D, 780D, 781D, 782D, 783D, 784D, 785D, 786D, 787D, 788D, 789D, 790D, 791D, 792D, 793D, 794D, 795D, 796D, 797D, 798D, 799D, 800D, 801D, 802D, 803D, 804D, 805D, 806D, 807D, 808D, 809D, 810D, 811D, 812D, 813D, 814D, 815D, 816D, 817D, 818D, 819D, 820D, 821D, 822D, 823D, 824D, 825D, 826D, 827D, 828D, 829D, 830D, 831D, 832D, 833D, 834D, 835D, 836D, 837D, 838D, 839D, 840D, 841D, 842D, 843D, 844D, 845D, 846D, 847D, 848D, 849D, 850D, 851D, 852D, 853D, 854D, 855D, 856D, 857D, 858D, 859D, 860D, 861D, 862D, 863D, 864D, 865D, 866D, 867D, 868D, 869D, 870D, 871D, 872D, 873D, 874D, 875D, 876D, 877D, 878D, 879D, 880D, 881D, 882D, 883D, 884D, 885D, 886D, 887D, 888D, 889D, 890D, 891D, 892D, 893D, 894D, 895D, 896D, 897D, 898D, 899D, 900D, 901D, 902D, 903D, 904D, 905D, 906D, 907D, 908D, 909D, 910D, 911D, 912D, 913D, 914D, 915D, 916D, 917D, 918D, 919D, 920D, 921D, 922D, 923D, 924D, 925D, 926D, 927D, 928D, 929D, 930D, 931D, 932D, 933D, 934D, 935D, 936D, 937D, 938D, 939D, 940D, 941D, 942D, 943D, 944D, 945D, 946D, 947D, 948D, 949D, 950D, 951D, 952D, 953D, 954D, 955D, 956D, 957D, 958D, 959D, 960D, 961D, 962D, 963D, 964D, 965D, 966D, 967D, 968D, 969D, 970D, 971D, 972D, 973D, 974D, 975D, 976D, 977D, 978D, 979D, 980D, 981D, 982D, 983D, 984D, 985D, 986D, 987D, 988D, 989D, 990D, 991D, 992D, 993D, 994D, 995D, 996D, 997D, 998D, 999D, 1000D

Bild ist nicht verfügbar.



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